(ii) Copies of the Inmarsat certification of compliance with IEC 61097–5 Ed. 1.0;

(iii) Copies of the test report and test data obtained from the test facility showing that the radiobeacon complies with IEC 61097–5 Ed. 1.0 and the environmental and operational requirements identified in this paragraph (b); and

(iv) Instruction manuals associated with the radiobeacon, description of the test characteristics of the radiobeacon including assembly drawings, electrical schematics, description of parts list, specifications of materials, and the manufacturer's quality assurance program.

(2) After reviewing the information described in paragraph (c)(1) of this section, the U.S. Coast Guard will issue a letter stating whether the radiobeacon satisfies all of the requirements specified in paragrpahs (a) and (b) of this section.

(c) A certification application for an INMARSAT–EPIRB submitted to the Commission must also contain a copy of the U.S. Coast Guard letter stating that the radiobeacon satisfies all of the requirements specified in paragraphs (a) and (b) of this section, a copy of the technical test data, and the instruction manual(s).

(d) The manufacturer or grantee must include with each marketable INMARSAT–E EPIRB appropriate material for registration of the radiobeacon with INMARSAT, along with a written warning that failure to register the radiobeacon could delay rescue services in an emergency.

(e) To enhance protection of life and property it is mandatory that each INMARSAT–E EPIRB be registered with INMARSAT before installation and that information be kept up-to-date. Therefore, in addition to the identification plate or label requirements contained in §§ 2.925 and 2.926 of this chapter, each INMARSAT–E EPIRB must be provided on the outside with a clearly discernable permanent plate or label containing the following statement: ''The owner of this INMARSAT–E EPIRB must register the NOAA identification code contained on this label with INMARSAT at the following address: INMARSAT, 99 City Road, London, EC1Y 1AX, United Kingdom.'' Vessel owners shall advise INMARSAT in writing upon change of vessel or EPIRB ownership, transfer of EPIRB to another vessel, or any other change in registration information.

(f) For INMARSAT–E EPIRBs whose identification code can be changed after manufacture, the identification code shown on the plate or label must be easily replaceable using commonly available tools.

[69 FR 64678, Nov. 8, 2004, as amended at 73 FR 4489, Jan. 25, 2008]

Subpart W—Global Maritime Distress and Safety System (GMDSS)

General Provisions

This subpart contains the rules applicable to the Global Maritime Distress and Safety System (GMDSS). Every ship of the United States subject to part II of title III of the Communications Act or the Safety Convention must comply with the provisions of this subpart. The rules in this subpart are to be read in conjunction with the applicable requirements contained elsewhere in this part; however, in case of conflict, the provisions of this subpart shall govern with respect to the GMDSS. For the purposes of this subpart, distress and safety communications include distress, urgency, and safety calls and messages.

SOURCE: 57 FR 9065, Mar. 16, 1992, unless otherwise noted.

NOTE: No provision of this subpart is intended to eliminate, or in anyway modify, other requirements contained in this part with respect to part II of title III of the Communications Act.

§ 80.1065 Applicability.

(a) The regulations contained within this subpart apply to all passenger ships regardless of size and cargo ships of 300 tons gross tonnage and upwards.

(b) The requirements of this subpart do not modify the requirements for ships navigated on the Great Lakes or small passenger boats. The requirements contained in the Agreement Between the United States of America and Canada for Promotion of Safety on the Great Lakes by Means of Radio, 1973, continue to apply (see subpart T of this part). The requirements contained in part III of title III of the

Communications Act continue to apply (see subpart S of this part).

(c) No provision in this subpart is intended to 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.

[57 FR 9065, Mar. 16, 1992, as amended at 60 FR 58245, Nov. 27, 1995; 60 FR 62927, Dec. 7, 1995; 73 FR 4489, Jan. 25, 2008]

§ 80.1067 Inspection of station.

(a) Ships must have the required equipment inspected at least once every 12 months by an FCC-licensed technician holding a GMDSS Radio Maintainer's License. If the ship passes the inspection the technician will issue a Safety Certificate. Safety Certificates may be obtained from the Commission's National Call Center at 1–888–CALL FCC (1–888–225–5322) or from its field offices. The effective date of the ship Safety Certificate is the date the station is found to be in compliance or not later than one business day later. The FCC-licensed technician must use the latest FCC Information Bulletin, *How to Conduct a GMDSS Inspection*. Contact the FCC's National Call Center at 1–888–CALL FCC (1–888–225–5322) to request a copy.

(b) Certificates issued in accordance with the Safety Convention must be posted in a prominent and accessible place on the ship.

[57 FR 9065, Mar. 16, 1992, as amended at 63 FR 29660, June 1, 1998]

§ 80.1069 Maritime sea areas.

(a) For the purpose of this subpart, a ship's area of operation is defined as follows:

(1) *Sea area A1.* An area within the radiotelephone coverage of at least one VHF coast station in which continuous DSC alerting is available as defined by the International Maritime Organization.

(2) *Sea area A2.* 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 defined by the International Maritime Organization.

(3) *Sea area A3.* An area, excluding sea areas A1 and A2, within the coverage of an INMARSAT geostationary satellite in which continuous alerting is available.

(4) *Sea area A4.* An area outside sea areas A1, A2 and A3.

(b) Maritime sea areas are delineated in the International Maritime Organization Publication GMDSS Master Plan of Shore-Based Facilities. The Master Plan can be purchased from the International Maritime Organization, 4 Albert Embankment, London SE1 7SR, United Kingdom.

§ 80.1071 Exemptions.

(a) In certain circumstances, partial or conditional exemptions may be granted to individual ships from the requirements of §§ 80.1085, 80.1087, 80.1089, 80.1091, and 80.1093 provided: such ships comply with the functional requirements of § 80.1081 and a showing is made that such an exemption will not have a material effect upon the general efficiency of the service for the safety of all ships.

(b) An exemption may be granted under paragraph (a) of this section only:

(1) If the conditions affecting safety are such as to render the full application of §§ 80.1085, 80.1087, 80.1089, 80.1091, and 80.1093 unreasonable or unnecessary or otherwise not in the public interest;

(2) In exceptional circumstances, for a single voyage outside the sea area or sea areas for which the ship is equipped.

(c) All fishing vessels of 300 gross tons and upward are exempt from subpart W requirements applicable for carriage of VHF-DSC and MF-DSC equipment until one year after the USCG establishes GMDSS coast facilities for Sea Areas A1 and A2, if the following provisions are met:

(1) The ship is equipped with:

(i) A VHF radiotelephone installation.

(ii) A MF or HF radiotelephone installation.

(iii) A Category 1, 406.0–406.1 MHz EPIRB meeting the requirements of § 80.1061;

(iv) A NAVTEX receiver meeting the requirements of § 80.1101(c)(1);

(v) Survival craft equipment meeting the requirements of § 80.1095;

(vi) A Search and Rescue Transponder meeting the requirements of § 80.1101(c)(6); and

(2) The ship remains within coverage of a VHF coast station and maintains a continuous watch on VHF Channel 16; or

(3) The vessel remains within coverage of an MF coast station and maintains a continuous watch on 2182 kHz and VHF Channel 16.

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46975, Aug. 7, 2003; 73 FR 4489, Jan. 25, 2008]

§ 80.1073 Radio operator requirements for ship stations.

(a) Ships must carry at least two persons holding GMDSS Radio Operator's Licenses as specified in § 13.7 of this chapter for distress and safety radiocommunications purposes. The GMDSS Radio Operator's License qualifies personnel as a GMDSS radio operator for the purposes of operating a GMDSS radio installation, including basic equipment adjustments as denoted in the knowledge requirements specified in § 13.203 of this chapter.

(1) A qualified GMDSS radio operator must be designated to have primary responsibility for radiocommunications during distress incidents, except if the vessel operates exclusively within twenty nautical miles of shore, in which case a qualified restricted radio operator may be so designated.

(2) A second qualified GMDSS radio operator must be designated as backup for distress and safety radiocommunications, except if the vessel operates exclusively within twenty nautical miles of shore, in which case a qualified restricted GMDSS radio operator may be so designated.

(b) A qualified GMDSS radio operator, and a qualified backup, as specified in paragraph (a) of this section must be:

(1) Available to act as the dedicated radio operator in cases of distress as described in § 80.1109(a);

(2) Designated to perform as part of normal routine each of the applicable communications described in § 80.1109(b);

(3) Responsible for selecting HF DSC guard channels and receiving scheduled maritime safety information broadcasts;

(4) Designated to perform communications described in § 80.1109(c);

(5) Responsible for ensuring that the watches required by § 80.1123 are properly maintained; and

(6) Responsible for ensuring that the ship's navigation position is entered into all installed DSC equipment, either automatically through a connected or integral navigation receiver, or manually at least every four hours when the ship is underway.

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46975, Aug. 7, 2003; 73 FR 4489, Jan. 25, 2008]

§ 80.1074 Radio maintenance personnel for at-sea maintenance.

(a) Ships that elect the at-sea option for maintenance of GMDSS equipment (see § 80.1105) must carry at least one person who qualifies as a GMDSS radio maintainer, as specified in paragraph (b) of this section, for the maintenance and repair of equipment specified in this subpart. This person may be, but need not be, the person designated as GMDSS radio operator as specified in § 80.1073.

(b) The following licenses qualify personnel as GMDSS radio maintainers to perform at-sea maintenance of equipment specified in this subpart. For the purposes of this subpart, no order is intended by this listing or the alphanumeric designator.

(1) GM: GMDSS Maintainer's License;

(2) GB: GMDSS Operator's/Maintainer's License.

(c) While at sea, all adjustments of radio installations, servicing, or maintenance of such installations that may affect the proper operation of the GMDSS station must be performed by, or under the immediate supervision and responsibility of, a qualified GMDSS radio maintainer as specified in paragraph (b) of this section.

(d) The GMDSS radio maintainer must possess the knowledge covering the requirements set forth in IMO Assembly on Training for Radio Personnel (GMDSS), Annex 5 and IMO Assembly on Radio Maintenance Guidelines for the Global Maritime Distress

and Safety System related to Sea Areas A3 and A4.

[57 FR 9065, Mar. 16, 1992, as amended at 63 FR 49872, Sept. 18, 1998; 68 FR 46976, Aug. 7, 2003]]

§ 80.1075 Radio records.

A record must be kept, as required by the Radio Regulations and § 80.409 (a), (b) and (e), of all incidents connected with the radiocommunication service which appear to be of importance to safety of life at sea.

§ 80.1077 Frequencies.

The following table describes the frequencies used in the Global Maritime Distress and Safety System:

Alerting:	
406.0–406.1 EPIRBs	406.0–406.1 MHz (Earth-to-space). 1544–1545 MHz (space-to-Earth).
INMARSAT–E EPIRBs[12]	1626.5–1645.5 MHz (Earth-to-space).
INMARSAT Ship Earth Stations capable of voice and/or direct printing.	1626.5–1645.5 MHz (Earth-to-space).
VHF DSC Ch. 70	156.525 MHz.[1]
MF/HF DSC[2]	2187.5 kHz[3], 4207.5 kHz, 6312 kHz, 8414.5 kHz, 12577 kHz, and 16804.5 kHz.
On-scene communications:	
VHF Ch.16	156.8 MHz.
MF Radiotelephony	2182 kHz.
NBDP	2174.5 kHz.
Communications involving aircraft:	
On-scene, including search and rescue.	156.8 MHz[4], 121.5 MHz[5], 123.1 MHz, 156.3 MHz, 2182 kHz, 3023 kHz, 4125 kHz, and 5680 kHz.[6]
Locating signals:	
406–406.1 EPIRB Beacons	121.5 MHz.
9 GHz radar transponders	9200–9500 MHz.
Maritime safety information (MSI):	
International NAVTEX	518 kHz.[7]
Warnings	490 kHz, 4209.5 kHz.
NBDP	4210 kHz, 6314 kHz, 8416.5 kHz, 12579 kHz, 16806.5 kHz, 19680.5 kHz, 22376 kHz, 26100.5 kHz.
Satellite	1530–1545 MHz.[10]
General distress and safety communications and calling:	
Satellite	1530–1544 MHz (space-to-Earth) and 1626.5–1645.5 MHz (Earth-to-space).[10]
Radiotelephony	2182 kHz, 4125 kHz, 6215 kHz, 8291 kHz, 12290 kHz, 16420 kHz, and 156.8 MHz.
NBDP	2174.5 kHz, 4177.5 kHz, 6268 kHz, 8376.5 kHz, 12520 kHz, and 16695 kHz.
DSC	2187.5 kHz, 4207.5 kHz, 6312 kHz, 8414.5 kHz, 12577 kHz, 16804.5 kHz, and 156.525 MHz.
Survival craft:	
VHF radiotelephony	156.8 MHz and one other 156–174 MHz frequency
9 GHz radar transponders	9200–9500 MHz.

[1] Frequency 156.525 MHz can be used for ship-to-ship alerting and, if within sea area A1, for ship-to-shore alerting.

[2] For ships equipped with MF/HF equipment, there is a watch requirement on 2187.5 kHz, 8414.5 kHz, and one other frequency.

[3] Frequency 2187.5 kHz can be used for ship-to-ship alerting and, if within sea area A2, for ship-to-shore alerting.
[4] Frequency 156.8 MHz may also be used by aircraft for safety purposes only.
[5] Frequency 121.5 MHz may be used by ships for aeronautical distress and urgency purposes.
[6] The priority of use for ship-aircraft communications is 4125 kHz, then 3023 kHz. Additionally, frequencies 123.1 MHz, 3023 kHz and 5680 kHz can be used by land stations engaged in coordinated search and rescue operations.
[7] The international NAVTEX frequency 518 kHz is the primary frequency for receiving maritime safety information. The other frequencies are used only to augment the coverage or information provided on 518 kHz.
[8] [Reserved]
[9] [Reserved]
[10] In addition to EPIRBs, 1544–1545 MHz can be used for narrowband distress and safety operations and 1645.5–1646.5 MHz can be used for relay of distress alerts between satellites. Feeder links for satellite communications are assigned from the fixed satellite service, see 47 CFR §2.106.
[11] [Reserved]
[12] Service to INMARSAT–E EPIRB stations terminated on December 1, 2006, so distress signals from INMARSAT–E EPIRB stations will not be received by any Rescue Coordination Center.

[69 FR 64678, Nov. 8, 2004, as amended at 73 FR 4489, Jan. 25, 2008]

EQUIPMENT REQUIREMENTS FOR SHIP STATIONS

§ 80.1081 Functional requirements.

Ships, while at sea, must be capable:

(a) Except as provided in §§ 80.1087(a)(1) and 80.1091(a)(4)(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 sytsems or networks; and

(i) Of transmitting and receiving bridge-to-bridge communications.

§ 80.1083 Ship radio installations.

(a) Ships must be provided with radio installations capable of complying with the functional requirements prescribed by § 80.1081 throughout its intended voyage and, unless exempted under § 80.1071, complying with the requirements of § 80.1085 and, as appropriate for the sea area of areas through which it will pass during its intended voyage, the requirements of either § 80.1087, § 80.1089, § 80.1091, or § 80.1093.

(b) The radio installation must:

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

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

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

(4) Be provided with reliable, permanently arranged electrical lighting, independent of the main and emergency sources of electrical power, for the adequate illumination of the radio controls for operating the radio installation; and

(5) Be clearly marked with the call sign, the ship station identity and other codes as applicable for the use of the radio installation.

(c) Control of the VHF radiotelephone channels required for navigational safety must 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.

(d) Shipborne Integrated Radiocommunication System (IRCS) may be utilized to integrate all GMDSS equipment into a standard operator's console. Such installation must be certified in accordance with

§ 80.1103 and meet the requirements of IMO Assembly Resolution A.811(19), ''Performance Standards for a Shipborne Integrated Radiocommunication System (IRCS) When Used in the GMDSS,'' with Annex, adopted 23 November 1995. IMO Assembly Resolution A.811(19) with Annex is incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of this standard can be inspected at the Federal Communications Commission, 445 12th Street, SW., Washington, DC (Reference Information Center) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.* The IMO standards can be purchased from Publications, International Maritime Organization, 4 Albert Embankment, London SE1 7SR, United Kingdom.

(e) 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 radiocommunications 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 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.

(f) In passenger ships, information on the ship's position shall be continuously and automatically provided to all relevant radiocommunications equipment to be included in the initial distress alert when the button or buttons on the distress panel is pressed.

(g) 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.

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46976, Aug. 7, 2003; 69 FR 64679, Nov. 8, 2004; 73 FR 4489, Jan. 25, 2008]

§ 80.1085 Ship radio equipment—General.

This section contains the general equipment requirements for all ships subject to this subpart.

(a) Ships must be provided with:

(1) A VHF radio installation capable of transmitting and receiving:

(i) DSC on the frequency 156.525 MHz (channel 70), and it must be able 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);

(2) A dedicated, non-scanning radio installation capable of maintaining a continuous DSC watch on VHF channel 70 which may be separate from, or combined with, that required by paragraph (a)(1)(i) of this section;

(3) A radar transponder capable of operating in the 9 GHz band, which must be stowed so that it is easily utilized (this transponder may be one of those required by § 80.1095(b) for a survival craft);

(4) A receiver capable of receiving international NAVTEX service broadcasts;

(5) If the ship is engaged on voyages in any area of INMARSAT coverage in which an international NAVTEX service is not provided, a radio facility for reception of maritime safety information by the INMARSAT enhanced group calling system, *i.e.,* SafetyNet, (this requirement does not apply to ships engaged exclusively on voyages in areas where an HF direct-printing telegraphy maritime safety information service, as identified by the IMO GMDSS Master Plan Publication, is provided and the ship is fitted with equipment capable of receiving such service); and

(6) A satellite emergency position-indicating radio beacon (satellite EPIRB) which must be:

(i) Capable of transmitting a distress alert through the polar orbiting satellite service operating in the 406.0–406.1 MHz band (406.0–406.1 MHz EPIRB) or, if the ship is not operating in sea area A4, as defined in § 80.1069(a)(4), the 1.6 GHz band (INMARSAT–E EPIRB)

NOTE TO PARAGRAPH (a)(6)(i): Service to INMARSAT–E EPIRB stations terminated on December 1, 2006, so distress signals from INMARSAT–E EPIRB stations will not be received by any Rescue Coordination Center; and

(ii) Installed in an easily accessible position, ready to be manually released and capable of being carried by one person into a survival craft, capable of floating free if the ship sinks and of being automatically activated when afloat, and capable of being activated manually.

(iii) Examined and tested annually in accordance with the IMO standard, Circular MSC/Circ.1040, Guidelines on annual testing of 406 MHz satellite EPIRBs (28 May 2002). *See* § 80.1105(k). Circular MSC/Circ.1040 is incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of these standards can be inspected at the Federal Communications Commission, 445 12th Street, SW., Washington, DC (Reference Information Center) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to *http://www.archives.gov/federal__register/code__of__federal__regulations/ibr__locations.html*. The IMO standards can be purchased from International Maritime Organization (IMO), Publications, International Maritime Organization, 4 Albert Embankment, London SE1 7SR, United Kingdom; telephone 011 44 71 735 7611.

(b) Ships must carry either the most recent edition of the IMO publication entitled GMDSS Master Plan of Shore-Based Facilities, the U.S. NIMA Publication 117, or the Admiralty List of Radio Signals Volume 5 Global Maritime Distress and Safety System. Notice of new editions will be published on the Commission's Wireless Telecommunications Bureau web page under ''Marine Services'' and information will be provided about obtaining the new document.

(c) All GMDSS equipment capable of transmitting an automatic distress alert which includes position of the ship must have either an integral navigation receiver or capability of being connected to an external navigation receiver. If an external navigation receiver is installed, it shall be connected to all of the alerting devices referred to in paragraph (a) of this section. If there is no navigation receiver, the position must be entered manually for each alerting device at least once every 4 hours (at the change of the navigation watch).

(d) 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 and 123.1 MHz from the position from which the ship is normally navigated.

[57 FR 9065, Mar. 16, 1992, as amended at 60 FR 50122, Sept. 28, 1995; 68 FR 46977, Aug. 7, 2003; 69 FR 64679, Nov. 8, 2004; 73 FR 4489, Jan. 25, 2008]

§ 80.1087 Ship radio equipment—Sea area A1.

This section contains the additional equipment requirements for ships that remain within sea area A1 at all times.

(a) In addition to meeting the requirements of § 80.1085, ships engaged on voyages exclusively in sea area A1 must be provided with a radio installation capable of initiating the transmission of ship-to-shore distress alerts from the position from which the ship is normally navigated, operating either:

(1) On VHF using DSC; or

(2) Through the polar orbiting satellite service on 406.0–406.1 MHz or the INMARSAT–E service in the 1.6 GHz band (this requirement may be fulfilled by the EPIRB required by § 80.1085(a)(6), either by installing the EPIRB close to, or by allowing remote activation from, the position from which the ship is normally navigated).

NOTE TO PARAGRAPH (a)(2): Service to INMARSAT–E EPIRB stations terminated on December 1, 2006, so distress signals from INMARSAT–E EPIRB stations will not be received by any Rescue Coordination Center; or

(3) On MF using DSC if the ship is engaged on voyages within coverage of MF coast stations equipped with DSC; or

(4) On HF using DSC; or

(5) Through the INMARSAT geostationary satellite service if within INMARSAT coverage. This requirement may be fulfilled by an INMARSAT ship earth station capable of two way communication.

(b) The VHF radio installation, required by § 80.1085(a)(1), must also be capable of transmitting and receiving general radiocommunications using radiotelephony.

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46977, Aug. 7, 2003; 69 FR 64680, Nov. 8, 2004; 73 FR 4490, Jan. 25, 2008]

§ 80.1089 Ship radio equipment—Sea areas A1 and A2.

This section contains the additional equipment requirements for ships that remain within sea areas A1 or A2 at all times. Ships fitting in accordance with this section satisfy the sea area A1 requirements denoted in § 80.1087.

(a) In addition to meeting the requirements of § 80.1085, ships engaged on voyages beyond sea area A1, but remaining within sea area A2, must be provided with:

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

(i) 2187.5 kHz using DSC; and

(ii) 2182 kHz using radiotelephony;

(2) A radio installation capable of maintaining a continuous DSC watch on the frequency 2187.5 kHz which may be separate from or combined with, that required by paragraph (a)(1)(i) of this section; and

(3) 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 406.0–406.1 MHz or the INMARSAT–E service in the 1.6 GHz band (this requirement may be fulfilled by the EPIRB required by § 80.1085(a)(6), either by installing the EPIRB close to, or by allowing remote activation from, the position from which the ship is normally navigated).

NOTE TO PARAGRAPH (a)(3)(i): Service to INMARSAT–E EPIRB stations terminated on December 1, 2006, so distress signals from INMARSAT–E EPIRB stations will not be received by any Rescue Coordination Center; or

(ii) On HF using DSC; or

(iii) Through the INMARSAT geostationary satellite service if within INMARSAT coverage; this requirement may be fulfilled by an INMARSAT ship earth station.

(b) It must be possible to initiate transmission of distress alerts by the radio installations specified in paragraphs (a)(1) and (a)(3) of this section from the position from which the ship is normally navigated.

(c) Ships subject to this section must be capable of transmitting and receiving general radiocommunications using radiotelephony or direct-printing telegraphy by either:

(1) A radio installation operating on working frequencies in the bands between 1605–4000 kHz or between 4000–27500 kHz (this requirement may be fulfilled by the addition of this capability to the equipment required by paragraph (a)(1) of this section); or

(2) An INMARSAT ship earth station.

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46977, Aug. 7, 2003; 69 FR 64680, Nov. 8, 2004; 73 FR 4490, Jan. 25, 2008]

§ 80.1091 Ship radio equipment—Sea areas A1, A2, and A3.

This section contains the additional equipment requirements for ships that remain within sea areas A1, A2, or A3 at all times. Ships fitting in accordance with this section satisfy the requirements denoted in § 80.1087 or § 80.1089 for sea-areas A1 and A2. Ships fitting in accordance to this section have the option to comply with either the requirements of paragraph (a) or (b) of this section.

(a) In addition to meeting the requirements of § 80.1085, ships subject to this section must be provided with:

(1) An INMARSAT ship earth station capable of:

(i) Transmitting and receiving distress and safety data communications;

(ii) Initiating and receiving distress priority calls;

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

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

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

(i) 2187.5 kHz using DSC; and

(ii) 2182 kHz using radiotelephony; and

(3) A radio installation capable of maintaining a continuous DSC watch on the frequency 2187.5 kHz which may be separate from or combined with that required by paragraph (a)(2)(i) of this section; and

(4) 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 406.0–406.1 MHz or the INMARSAT–E service in the 1.6 GHz band (this requirement may be fulfilled by the EPIRB required by §80.1085(a)(6), either by installing the EPIRB close to, or by allowing remote activation from, the position from which the ship is normally navigated).

NOTE TO PARAGRAPH (a)(4)(i): Service to INMARSAT–E EPIRB stations terminated on December 1, 2006, so distress signals from INMARSAT–E EPIRB stations will not be received by any Rescue Coordination Center; or

(ii) On HF using DSC: or

(iii) Through the INMARSAT geostationary satellite service, by an additional ship earth station.

NOTE TO PARAGRAPH (a)(4)(iii) For ships subject to this subpart, sailing only in domestic waters, alternative satellite system fitting may be considered. However, the satellite system fitted must comply with all features of the INMARSAT system for its intended function. These are shown in IMO Assembly Resolution A.801(19) Appendix 13, Annex 5, ''Criteria for Use When Providing Inmarsat Shore-Based Facilities for Use in the GMDSS,'' adopted 23 November 1995, and in IMO Assembly Resolution A.888(21), ''Criteria for the Provision of Mobile Satellite Communication Systems in the Global Maritime Distress and Safety System (GMDSS),'' with Annex, adopted 25 November 1999. In any case, the alternative satellite system must provide continuous coverage for all sea areas in which the ship intends to sail. IMO Assembly Resolution A.801(19) Appendix 13, Annex 5, and IMO Assembly Resolution A.888(21) with Annex are incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of these standards can be inspected at the Federal Communications Commission, 445 12th Street, SW, Washington, DC (Reference Information Center) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal__register/code__of__federal__regulations/ibr__locations.html*. The IMO standards can be purchased from Publications, International Maritime Organization, 4 Albert Embankment, London SE1 7SR, United Kingdom.

(b) In addition to meeting the requirements of §80.1085, ships subject to this section must be provided with:

(1) An MF/HF radio installation capable of transmitting and receiving on all distress and safety frequencies in the bands between 1605–27500 kHz using DSC, radiotelephony, and narrow-band direct-printing telegraphy; and

(2) Equipment capable of maintaining DSC watch on 2187.5 kHz, 8414.5 kHz and on at least one of the distress and safety DSC frequencies 4207.5 kHz, 6312 kHz, 12577 kHz, or 16804.5 kHz although it must be possible to select any of these DSC distress and safety frequencies at any time (this equipment may be separate from, or combined with, the equipment required by paragraph (b)(1) of this section); and

(3) 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 406.0–406.1 MHz (this requirement may be fulfilled by the 406.0–406.1 MHz EPIRB required by §80.1085(a)(6), either by installing the 406.0–406.1 MHz EPIRB close to, or by allowing remote activation from, the position from which the ship is normally navigated); or

(ii) Through the INMARSAT–E service in the 1.6 GHz band (this requirement may be fulfilled by the EPIRB required by §80.1085(a)(6), either by installing the EPIRB close to, or by allowing remote activation from, the position from which the ship is normally navigated).

NOTE TO PARAGRAPH (b)(3)(ii): Service to INMARSAT–E EPIRB stations terminated on December 1, 2006, so distress signals from INMARSAT–E EPIRB stations will not be received by any Rescue Coordination Center; or

(iii) Through the INMARSAT geostationary satellite service (this requirement may be fulfilled by an INMARSAT ship earth station).

(4) In addition, ships must 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 1605–4000 kHz and between 4000–27500 kHz (this requirement may be fulfilled by the addition of this capability to the equipment required by paragraph (b)(1) of this section).

(c) It must be possible to initiate transmission of distress alerts by the radio installations specified in paragraphs (a)(1), (a)(2), (a)(4), (b)(1), and (b)(3) of this section from the position from which the ship is normally navigated.

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46977, Aug. 7, 2003; 69 FR 64680, Nov. 8, 2004; 73 FR 4490, Jan. 25, 2008]

§80.1093 Ship radio equipment—Sea areas A1, A2, A3, and A4.

This section contains the additional equipment requirements for ships that sail in all sea areas, *i.e.*, sea areas A1, A2, A3, and A4. Ships fitting in accordance with this section satisfy the requirements denoted in §§80.1087, 80.1089, and 80.1091 for sea areas A1, A2, and A3.

(a) In addition to meeting the requirements of §80.1085 of this part, ships engaged on voyages in all sea areas must be provided with the radio installations and equipment required by §80.1091(b), except that the equipment required by §80.1091(b)(3)(ii) and §80.1091(b)(3)(iii) cannot be accepted as an alternative to that required by §80.1091(b)(3)(i), which must always be provided.

(b) Ships engaged on voyages in all sea areas also must comply with the requirements of §80.1091(c).

[57 FR 9065, Mar. 16, 1992, as amended at 69 FR 64680, Nov. 8, 2004]

§80.1095 Survival craft equipment.

(a) At least three two-way VHF radiotelephone apparatus must be provided on every passenger ship and on every cargo ship of 500 tons gross tonnage and upwards. At least two two-way VHF radiotelephone apparatus must be provided on every cargo ship of between 300–500 tons gross tonnage. Portable two-way VHF radiotelephones must be stowed in such locations that they can be rapidly placed in any survival craft other than life rafts required by Regulation III/26.1.4 of the SOLAS Convention. (The SOLAS Convention can be purchased from International Maritime Organization (IMO), Publications, International Maritime Organization, 4 Albert Embankment, London SE1 7SR, United Kingdom; telephone 011 44 71 735 7611, *www.imo.org*.) Alternatively, survival craft may be fitted with a fixed two-way VHF radiotelephone installation. Two-way VHF radiotelephone apparatus, portable or fixed, must conform to performance standards as specified in §80.1101.

(b) At least one radar transponder must be carried on each side of every passenger ship and every cargo ship of 500 tons gross tonnage and upwards. At least one radar transponder must be carried on every cargo ship of 300 tons gross tonnage and upwards but less than 500 tons gross tonnage. Such radar transponders must conform to performance standards as specified in §80.1101. The radar transponders must be stowed in such locations that they can be rapidly placed in any survival craft other than liferafts required on cargo ships in forward and aft areas (see Regulation III/26.1.4 of the SOLAS Convention). Alternatively, one radar transponder must be stowed in each survival craft other than those required by Regulation III/26.1.4 of the SOLAS Convention. One of these radar transponders may be radar transponder required by §80.1085(a)(3).

(c) Survival craft equipment must be tested at intervals not to exceed twelve months. For batteries used for survival craft equipment, the month and year of its manufacture must be permanently marked on the battery. Also, the month and year upon which 50 percent of its useful life will expire must be permanently marked on both the battery and the outside of the transmitter. Batteries must be replaced if 50 percent of their useful life has expired or if the transmitter has been used in an emergency situation.

[57 FR 9065, Mar. 16, 1992, as amended at 73 FR 4490, Jan. 25, 2008]

§ 80.1099 Ship sources of energy.

(a) There must 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 of energy for the radio installations.

(b) A reserve source of energy to supply radio installations must be provided on every ship for the purpose of conducting distress and safety radiocommunications, in the event of failure of the ship's main and emergency sources of electrical power. The reserve sources of energy must be capable of simultaneously operating the VHF radio installation required by § 80.1085(a)(1) and, as appropriate for the sea area or sea areas for which the ship is equipped, either the MF radio installation required by § 80.1089(a)(1), the MF/HF radio installation required by § 80.1091(a)(2)(i) or § 80.1093(a), or the INMARSAT ship earth station required by § 80.1091(a)(1) and any of the additional loads mentioned in paragraphs (d), (e) and (h) of this section for a period of at least:

(1) One hour, on ships constructed on or after February 1, 1995;

(2) One hour, on ships constructed before February 1, 1995, if the emergency source of electrical power complies fully with all relevant requirements of SOLAS, Chapter II–1, Regulation 42 or 43 (as amended); or

(3) Six hours, on ships constructed before February 1, 1995, and on cargo ships of less than 500 tons gross tonnage, if the emergency source of electrical power is not provided or does not comply fully with all relevant requirements of SOLAS, Chapter II–1, Regulation 42 or 43 (as amended).

(c) The reserve sources of energy need not supply independent HF and MF radio installations at the same time. The reserve sources of energy must be independent of the propelling power of the ship and the ship's electrical system.

(d) Where, in addition to the VHF radio installation, two or more of the other radio installations, referred to in paragraph (b) of this section, can be connected to the reserve sources of energy, they must be capable of simultaneously supplying, for one hour, as specified in paragraph (b) of this section, the VHF radio installation and;

(1) All other radio installations which can be connected to the reserve sources of energy at the same time; or

(2) 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 sources of energy at the same time as the VHF radio installation.

(e) The reserve sources of energy may be used to supply the electrical lighting required by § 80.1083(b)(4).

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

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

(2) Battery charge levels should be checked at intervals of 30 days or less with equipment turned ON and the battery charger turned OFF. Portable equipment with primary batteries such as EPIRBs and SARTs should be checked at the same intervals using methods recommended by the manufacturer. The results of battery checks should be recorded in the radio log.

(g) The accumulator batteries which provide a reserve source of energy must be installed to ensure: The highest degree of service, a reasonable lifetime, reasonable safety; that the battery temperatures remain within the manufacturer's specifications whether under charge or idle; and that when fully charged, the batteries will provide at

least the minimum required hours of operation under all weather conditions.

(h) If an uninterrupted input of information from the ship's navigational or other equipment to a radio installation required by this subpart (including the navigational receiver referred to in SOLAS Chapter IV, Regulation 18) is needed to ensure its proper performance, means must be provided to ensure the continuous supply of such information in the event of failure of the ship's main or emergency source of electrical power.

(i) An uninterruptible power supply or other means of ensuring a continuous supply of electrical power, within equipment tolerances, shall be provided to all GMDSS equipment that could be affected by normal variations and interruptions of ship's power.

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46977, Aug. 7, 2003]

§ 80.1101 Performance standards.

(a) The abbreviations used in this section are as follows:

(1) International Maritime Organization (IMO).

(2) International Telecommunication Union—Telecommunication Standardization Bureau (ITU-T) (Standards formerly designated as CCITT are now designated as ITU-T.)

(3) International Electrotechnical Commission (IEC).

(4) International Organization for Standardization (ISO).

(5) International Telecommunication Union—Radiocommunication Bureau (ITU-R) (Standards formerly designated as CCIR are now designated as ITU-R.)

(b) All equipment specified in this subpart must meet the general requirements for shipboard equipment in conformity with performance specifications listed in this paragraph, which are incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(1) IMO Resolution A.694(17), ''General Requirements for Shipborne Radio Equipment Forming Part of the Global Maritime Distress and Safety System (GMDSS) and for Electronic Navigational Aids,'' adopted 6 November 1991.

(2) ITU-T Recommendation E.161, ''Arrangement of Digits, Letters and Symbols on Telephones and Other Devices that Can Be Used for Gaining Access to a Telephone Network,'' 1993.

(3) ITU-T Recommendation E.164.1, ''Series E: Overall Network Operation, Telephone Service, Service Operation and Human Factors; Operation, Numbering, Routing and Mobile Services—International Operation—Numbering Plan of the International Telephone Service: Criteria and Procedures for the Reservation, Assignment, and Reclamation of E.164 Country Codes and Associated Identification Codes (ICs),'' March 1998.

(4) IEC 60092–101, Edition 4.1, ''Electrical installations in ships—part 101: Definitions and general requirements,'' August 2002.

(5) IEC 60533, ''Electrical and electronic installations in ships—Electromagnetic compatibility,'' November 1999.

(6) IEC Publication 60945, ''Maritime navigation and radiocommunication equipment and systems—General requirements—Methods of testing and required test results,'' Edition 4.0, with Annexes, August 2002.

(7) ISO Standard 3791, ''Office Machines and Data Processing Equipment—Keyboard Layouts for Numeric Applications,'' First Edition 1976(E).

(c) The equipment specified in this subpart must also conform to the appropriate performance standards listed in paragraphs (c)(1) through (10) of this section, which are incorporated by reference, and must be tested in accordance with the applicable IEC testing standards listed in paragraph (c)(11) of this section, and are also incorporated by reference.

(1) *NAVTEX receivers:* (i) IMO Resolution A.525(13), ''Performance Standards for Narrow-band Direct Printing Telegraph Equipment for the Reception of Navigational and Meteorological Warnings and Urgent Information to Ships,'' including Annex, adopted 17 November 1983.

(ii) ITU-R Recommendation M.540–2, ''Operational and Technical Characteristics for an Automated Direct-printing Telegraph System for Promulgation of

Navigational and Meteorological Warnings and Urgent Information to Ships,'' including Annexes, 1990.

(2) *VHF radio equipment:* (i) IMO Resolution A.803(19), ''Performance Standards for Shipborne VHF Radio Installations Capable of Voice Communication and Digital Selective Calling,'' with Annex, adopted 23 November 1995, as amended by IMO Resolution MSC.68(68), ''Adoption of Amendments to Performance Standards for Shipborne Radiocommunication Equipment,'' GMDSS terrestrial communications—1.1(c), adopted 6 June 1997.

(ii) ITU–R Recommendation M.493–11, ''Digital Selective-calling System for Use in the Maritime Mobile Service,'' with Annexes 1 and 2, 2004.

(iii) ITU–R Recommendation M.541–9, ''Operational Procedures for the Use of Digital Selective-Calling Equipment in the Maritime Mobile Service,'' with Annexes 1 through 5, 2004.

(3) *MF radio equipment:* (i) IMO Resolution 804(19), ''Performance Standards for Shipborne MF Radio Installations Capable of Voice Communication and Digital Selective Calling,'' with Annex, adopted 23 November 1995, as amended by IMO Resolution MSC.68(68), ''Adoption of Amendments to Performance Standards for Shipborne Radiocommunication Equipment,'' GMDSS terrestrial communications—1.2(c), adopted 6 June 1997.

(ii) ITU–R Recommendation M.493–11, ''Digital Selective-calling System for Use in the Maritime Mobile Service,'' with Annexes 1 and 2, 2004.

(iii) ITU–R Recommendation M.541–9, ''Operational Procedures for the Use of Digital Selective-Calling Equipment in the Maritime Mobile Service,'' with Annexes 1 through 5, 2004.

(4) *MF/HF radio equipment:* (i) IMO Resolution A.806(19), ''Performance Standards for Shipborne MF/HF Radio Installations Capable of Voice Communication, Narrow-Band Direct Printing and Digital Selective Calling,'' with Annex, adopted 23 November 1995, as amended by IMO Resolution MSC.68(68), ''Adoption of Amendments to Performance Standards for Shipborne Radiocommunication Equipment,'' GMDSS terrestrial communications—1.3(c), adopted 6 June 1997.

(ii) ITU–R Recommendation M.493–11, ''Digital Selective-calling System for Use in the Maritime Mobile Service,'' with Annexes 1 and 2, 2004.

(iii) ITU–R Recommendation M.541–9, ''Operational Procedures for the Use of Digital Selective-Calling Equipment in the Maritime Mobile Service,'' with Annexes 1 through 5, 2004.

(iv) IMO Resolution A.700(17), ''Performance Standards for Narrow-band Direct-printing Telegraph Equipment for the Reception of Navigational and Meteorological Warnings and Urgent Information to Ships (MSI) by HF,'' adopted 6 November 1991.

(5) *406.0–406.1 MHz EPIRBs:* (i) IMO Resolution A.810(19), ''Performance Standards for Float-free Satellite Emergency Position-indicating Radio Beacons (EPIRBs) Operating on 406 MHz,'' with Annex, adopted 23 November 1995, and IMO Resolution A.812(19), ''Performance Standards for Float-free Satellite Emergency Position-indicating Radio Beacons Operating Through the Geostationary INMARSAT Satellite System on 1.6 GHz,'' with Annex, adopted 23 November 1995.

(ii) IMO Resolution A.662(16), ''Performance Standards for Float-free Release and Activation Arrangements for Emergency Radio Equipment,'' adopted 19 October 1989.

(iii) ITU–R Recommendation M.633–3, ''Transmission characteristics of a satellite emergency position-indicating radiobeacon (satellite EPIRB) system operating through a low polar-orbiting satellite system in the 406 MHz band,'' 2000.

(iv) The 406.0–406.1 MHz EPIRBs must also comply with § 80.1061.

(6) *9 GHz radar transponders:* (i) IMO Resolution A.802(19), ''Performance Standards for Survival Craft Radar Transponders for Use in Search and Rescue Operations,'' with Annex, adopted 23 November 1995.

(ii) ITU-R Recommendation M.628–3, ''Technical Characteristics for Search and Rescue Radar Transponders,'' with Annexes, 1994.

(7) *Two-Way VHF radiotelephone:* (i) IMO Resolution A.809(19), ''Performance Standards for Survival Craft Two-Way VHF Radiotelephone Apparatus,''

including Annexes 1 and 2, adopted 23 November 1995.

(ii) IMO Resolution MSC.80(70), ''Adoption of New Performance Standards for Radiocommunication Equipment,'' with Annexes, adopted 8 December 1998.

(8) *INMARSAT Ship Earth Station Capable of Two-Way Communications:* IMO Resolution A.808(19), ''Performance Standards for Ship Earth Stations Capable of Two-Way Communications,'' with Annex, adopted 23 November 1995.

(9) *INMARSAT-C SES:* IMO Resolution A.807(19), ''Performance Standards for INMARSAT-C Ship Earth Stations Capable of Transmitting and Receiving Direct-Printing Communications,'' with Annex, adopted 23 November 1995, as amended by IMO Resolution MSC.68(68), ''Adoption of Amendments to Performance Standards for Shipborne Radiocommunication Equipment,'' Satellite communications—2.3(c), adopted 6 June 1997.

(10) *INMARSAT EGC:* IMO Resolution A.664(16), ''Performance Standards for Enhanced Group Call Equipment,'' adopted 19 October 1989.

(11) *INMARSAT–E EPIRBs:* Note: Service to INMARSAT–E EPIRB stations terminated on December 1, 2006, so distress signals from INMARSAT–E EPIRB stations will not be received by any Rescue Coordination Center.

(i) IMO Resolution A.812(19), ''Performance Standards for Float-Free Satellite EPIRBs Operating Through the Geostationary INMARSAT Satellite System on 1.6 GHz,'' adopted 23 November 1995, and Annex, ''Recommendation on Performance.''

(ii) IMO Resolution A.662(16), ''Performance Standards for Float-Free Release and Activation Arrangements for Emergency Radio Equipment,'' with Annex, adopted 19 October 1989.

(iii) Recommendation ITU–R M.632–3, ''Transmission Characteristics of a Satellite Emergency Position-Indicating Radio Beacon (Satellite EPIRB) System Operating Through Geostationary Satellites in the 1.6 GHz Band,'' 1997.

(iv) IEC 61097–5, First Edition ''Global maritime distress and safety system (GMDSS)—part 5: Inmarsat-E Emergency position indicating radio beacon (EPIRB) operating through the Inmarsat system—operational and performance requirements, methods of testing and required test results,'' including Annexes A, B, and C, 1997.

(v) The INMARSAT E–EPIRBs must also comply with § 80.1063.

(12) *Automatic Identification Systems (AIS):* (i) ITU–R M.1371–1, ''Technical characteristics for a universal shipborne automatic identification system using time division multiple access in the VHF maritime mobile band,'' with Annexes, August 2001.

(ii) IMO Resolution MSC.74(69), ''Adoption of New and Amended Performance Standards, Annex 3 Recommendation on Performance Standards for a Universal Shipborne Automatic Identification Systems (AIS),'' adopted 12 May 1998.

(iii) IEC 61162–1, Second Edition, ''Maritime navigation and radiocommunication equipment and systems—Digital interfaces—Part 1: Single talker and multiple listeners,'' July 2000.

(iv) IEC 61162–100, Edition 1.0, ''Maritime navigation and radiocommunication equipment and systems—Digital interfaces—Part 100: Single talker and multiple listeners—Extra requirements to IEC 61162–1 for the UAIS,'' April 2002.

(v) IEC 61993–2, First Edition, ''Maritime navigation and radiocommunication equipment and systems—Automatic identification systems (AIS)—Part 2: Class A shipborne equipment of the universal automatic identification system (AIS)—Operational and performance requirements, methods of test and required test results,'' December 2001, with Annexes.

(vi) With respect to Class B AIS devices only, IEC 62287–1 International Standard, ''Maritime navigation and radio communication equipment and systems—Class B shipborne equipment of the Automatic Identification System—part 1: Carrier—sense time division multiple access (CSTDMA) techniques,'' First Edition 2006–03 (incorporated by reference at § 80.231).

(13) *Standards for testing GMDSS equipment:*

(i) IEC 1097–1 Ed 1.0, ''Global Maritime Distress and Safety System (GMDSS)—Part 1: Radar transponder—Marine Search and Rescue (SART)—

Operational and Performance Requirements, Methods of Testing and Required Test Results,'' with Annexes, July 1992.

(ii) IEC 61097–3 Ed 1.0, ''Global maritime distress and safety system (GMDSS)—part 3: Digital selective calling (DSC) equipment—Operational and performance requirements, methods of testing and required testing results,'' with Annexes, June 1994.

(iii) IEC 61097–4 Ed 1.0, ''Global maritime distress and safety system (GMDSS)—part 4: INMARSAT–C Ship Earth Station and INMARSAT enhanced group call (EGC) equipment—Operational and performance requirements, methods of testing and required test results,'' November 1994.

(iv) IEC 61097–6, ''Global maritime distress and safety system (GMDSS)—part 6: Narrowband direct-printing telegraph equipment for the reception of navigational and meteorological warnings and urgent information to ships (NAVTEX)—Operational and performance requirements, methods of testing and required test results,'' February 1995.

(v) IEC 61097–7, ''Global maritime distress and safety system (GMDSS)—part 7: Shipborne VHF radiotelephone transmitter and receiver—Operational and performance requirements, methods of testing and required test results,'' October 1996.

(vi) IEC 61097–8 Ed 1.0, ''Global Maritime Distress and Safety System (GMDSS)—Part 8: Shipborne watchkeeping receivers for the reception of digital selective calling (DSC) in the maritime MF, MF/HF, and VHF bands—Operational and Performance Requirements, Methods of Testing and Required Test Results,'' with Annexes, September 1998.

(vii) IEC 61097–9 Ed 1.0, ''Global Maritime Distress and Safety System (GMDSS)—Part 9: Shipborne Transmitters and Receivers for Use in the MF and HF Bands Suitable for Telephony, Digital Selective Calling (DSC) and Narrow Band Direct Printing (NBDP)—Operational and Performance Requirements, Methods of Testing and Required Test Results,'' with Annexes, December 1997.

(viii) IEC 61097–10 Ed 1.0, ''Global Maritime Distress and Safety System (GMDSS)—Part 10: INMARSAT-B Ship Earth Station Equipment—Operational and Performance Requirements, Methods of Testing and Required Test Results,'' with Annexes, June 1999.

(ix) IEC 61097–12 Ed 1.0, ''Global maritime distress and safety system (GMDSS)—part 12: Survival craft portable two-way VHF radiotelephone apparatus—Operational and performance requirements, methods of testing and required test results,'' December 1996.

(x) IEC 61097–13, First edition, ''Global maritime distress and safety system (GMDSS)—part 13: INMARSAT F77 ship earth station equipment—Operational and performance requirements, methods of testing and required test results,'' May 2003.

(d) The documents referenced in paragraphs (a) through (c) of this section have been approved for incorporation by reference by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Identification data and place to purchase for each of the referenced documents are listed as follows:

(1) Copies of IMO Resolutions, the 1974 SOLAS Convention, and the 1983 and 1988 amendments to the 1974 SOLAS Convention can be purchased from Publications, International Maritime Organization, 4 Albert Embankment, London SE1 7SR, United Kingdom.

(i) IMO Resolution A.525(13) is contained in the Resolutions and Other Decisions of the Assembly of the International Maritime Organization, 13th Session, 1983, (IMO, London, 1984), Sales Number 073 84.07.E.

(ii) IMO Resolutions A.802(19), A.803(19), A.804(19), A.806(19), A.807(19), A.808(19), A.810(19), A.811(19) and A.812(19) are contained in the Resolutions and Other Decisions of the Assembly of the International Maritime Organization, 19th Session, 1995, (IMO, London, 1988), Sales Number IMO–194E ISBN No. 91–801–1416–6.

(iii) IMO Resolutions A.662(16) and A.664(16) are contained in the Resolutions and Other Decisions of the Assembly of the International Maritime Organization, 16th Session, 1989, (IMO, London, 1990), Sales Number 136 90.04.E

(iv) IMO Resolutions A.694(17), and A.700(17) are contained in the Resolutions and Other Decisions of the Assembly of the International Maritime Organization, 17th Session, 1991, (IMO, London, 1991), Sales Number IMO–142E ISBN No. 91–801–1281–3.

(2) ITU-R Recommendations, ITU Radio Regulations, and ITU-T publications can be purchased from the International Telecommunication Union (ITU), Place des Nations, CH–1211 Geneva 20, Switzerland.

(i) All ITU-R Recommendations referenced in this section are contained in Recommendations of the ITU-R, Volume M series parts 3, 4, and 5.

(ii) ITU-T Recommendation E.161 is contained in Facicle II.2 Volume II—Telephone Network and ISDN Operation, Numbering, Routing and Mobile Service, (ITU, Geneva, 1989, revised in 1993 and 1995).

(iii) ITU-T Recommendation E.164.1 is contained in Facicle VI.1 Volume II Numbering Plan for the International Telephone Service, (ITU, Geneva, 1989, revised in 1997).

(3) IEC publications can be purchased from the International Electrotechnical Commission, 3 Rue de Varembe, CH–1211 Geneva 20, Switzerland, or from the American National Standards Institute (ANSI) through its NSSN operation (*www.nssn.org*), at Customer Service, American National Standards Institute, 25 West 43rd Street, New York, NY 10036, telephone (212) 642–4900.

(4) ISO Standards can be purchased from the International Organization for Standardization, 1 Rue de Varembe, CH–1211 Geneva 20, Switzerland, or from the American National Standards Institute (ANSI) through its NSSN operation (*www.nssn.org*), at Customer Service, American National Standards Institute, 25 West 43rd Street, New York, NY 10036, telephone (212) 642–4900.

(5) Copies of the publications listed in this section that are incorporated by reference can be inspected at the Federal Communications Commission, 445 12th Street, SW., (room CY-A257), Washington, DC, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html*.

[68 FR 46977, Aug. 7, 2003, as amended at 69 FR 64680, Nov. 8, 2004; 73 FR 4490, Jan. 25, 2008; 74 FR 5125, Jan. 29, 2009]

§ 80.1103 Equipment authorization.

(a) All equipment specified in § 80.1101 must be certificated in accordance with 47 CFR part 2 specifically for GMDSS use, except for equipment used in the INMARSAT space segment which must be type-approved by INMARSAT and verified in accordance with 47 CFR part 2 specifically for GMDSS use. The technical parameters of the equipment must conform to the performance standards as specified in § 80.1101. For emergency position-indicating radiobeacons operating on 406.0–406.1 MHz (406.0–406.1 MHz EPIRBs) that were authorized prior to April 15, 1992, and meet the requirements of § 80.1101, the manufacturer may attest by letter that the equipment (indicate FCC ID#) meets the requirements of § 80.1101 and request that it be denoted as approved for GMDSS use.

(b) Applicants for certification must submit with their applications measurement data sufficiently complete to ensure compliance with the technical parameters. The application must include the items listed in 47 CFR 2.1033. Additional measurement data or information may be requested depending upon the equipment. For items not listed in § 2.1033 of this chapter, the applicant must attest that the equipment complies with performance standards as specified in § 80.1101 and, where applicable, that measurements have been made that demonstrate the necessary compliance. Submission of representative data demonstrating compliance is not required unless requested by the Commission.

(c) Applicants for verification must attest that the equipment complies with performance standards as specified in § 80.1101 and, where applicable, that measurements have been made that demonstrate the necessary compliance. Submission of representative data demonstrating compliance is not required unless requested by the Commission. An application must include the items listed in §§ 2.953 and 2.955 of

this chapter and a copy of the type-approval certification indicating that equipment meets GMDSS standards and includes all peripheral equipment associated with the specific unit under review.

(d) Submission of a sample unit is not required unless specifically requested by the Commission.

(e) In addition to the requirements in part 2 of this chapter, equipment specified in §80.1101 shall be labeled as follows: ''This device complies with the GMDSS provisions of part 80 of the FCC rules.'' Such a label is not required for emergency position-indicating radiobeacons operating on 406.0–406.1 MHz (406.0–406.1 MHz EPIRBs) that were authorized prior to April 15, 1992.

[57 FR 9065, Mar. 16, 1992, as amended at 57 FR 44702, Sept. 29, 1992; 63 FR 36607, July 7, 1998; 68 FR 46980, Aug. 7, 2003; 69 FR 64680, Nov. 8, 2004; 73 FR 4491, Jan. 25, 2008]

§80.1105 Maintenance requirements.

(a) Equipment must be so designed that the main units can be replaced readily, without elaborate recalibration or readjustment. Where applicable, equipment must be constructed and installed so that it is readily accessible for inspection and on-board maintenance purposes. Adequate information must be provided to enable the equipment to be properly operated and maintained (see IMO Resolution A.569(14)).

(b) Radio equipment required by this subpart must be maintained to provide the availability of the functional requirements specified in §80.1081 and to meet the performance standards specified in §80.1101.

(c) On ships engaged on voyages in sea areas A1 and A2, the availability must be ensured by duplication of equipment, shore-based maintenance, or at-sea electronic maintenance capability, or a combination of these.

(d) On ships engaged on voyages in sea areas A3 and A4, the availability must be ensured by using a combination of at least two of the following methods: duplication of equipment, shore-based maintenance, or at-sea electronic maintenance capability.

(e) Irrespective of the maintenance methods used, a ship must not depart from any port unless and until the ship is capable of performing all distress and safety functions as specified in §80.1081.

(f) Irrespective of the maintenance methods used, all manufacturers' instruction manuals and maintenance manuals for each piece of equipment required and installed must be available on-board ship. Adequate tools, spare parts, and test equipment appropriate to the methods used by the ship as recommended by the manufacturer should be provided. The manuals, tools, spare parts, and test equipment, as applicable, should be readily accessible.

(g) If the duplication of equipment maintenance method is used, the following radio installations, in addition to other equipment requirements specified in this subpart, must be available on-board ships for their sea areas as applicable. Equipment carried in accordance with this paragraph must comply with §§80.1101 and 80.1103. Additionally, each radio installation must be connected to a separate antenna and be installed and be ready for immediate operation.

(1) Ships, equipped in accordance with §80.1087 for sea area A1, must carry a VHF radio installation complying with the requirements of §80.1085(a)(1).

(2) Ships, equipped in accordance with §80.1089 for sea areas A1 and A2, must carry a VHF radio installation complying with the requirements of §80.1085(a)(1) and an MF radio installation complying with the requirements of §80.1089(a)(1) and being able to fully comply with watch requirements as specified in §80.1123(a)(2). The MF radio installation installed for duplication must also comply with the requirements §80.1089(c).

(3) Ships, equipped in accordance with §80.1091 for sea areas A1, A2, and A3, must carry a VHF radio installation complying with the requirements of §80.1085(a)(1) and either an MF/HF radio installation complying with the requirements of §80.1091(b)(1) and being able to fully comply with watch requirements as specified in §80.1123(a)(2) or an INMARSAT ship earth station complying with the requirements of §80.1091(a)(1). The MF/HF radio installation or the INMARSAT ship earth

station installed for duplication must also comply with the requirements § 80.1091(c).

(4) Ships, equipped in accordance with § 80.1093 for sea areas A1, A2, A3, and A4, must carry a VHF radio installation complying with the requirement of § 80.1085(a)(1) and an MF/HF radio installation complying with the requirements of § 80.1091(b)(1) and being able to fully comply with watch requirements as specified in § 80.1123(a)(2). The MF/HF radio installation installed for duplication must also comply with the requirements § 80.1091(c).

(h) The radio installations specified in paragraph (g) of this section (referred as ''duplicated equipment''), in addition to the appropriate radio equipment specified in § 80.1099 (referred as ''basic equipment''), must be connected to the reserve sources of energy required by § 80.1099. The capacity of the reserve sources of energy should be sufficient to operate the particular installation (*i.e.*, the basic equipment or the duplicated equipment) with the highest power consumption, for the appropriate period specified in § 80.1099. However, the arrangement for the reserve sources of energy must be such that a single fault in this arrangement cannot affect both the basic and the duplicated equipment.

(i) If the shore-based maintenance method is used, the following requirements apply.

(1) Maintenance services must be completed and performance verified and noted in the ship's record before departure from the first port of call entered after any failure occurs.

(2) Each GMDSS equipment must be tested and performance verified and the results noted in the ship's record before departure from every port. To accomplish this, each ship shall carry a performance checkoff sheet listing each GMDSS equipment carried on a mandatory basis.

(j) If the at-sea maintenance method is used, the following requirements apply.

(1) Adequate additional technical documentation, tools, test equipment, and spare parts must be carried onboard ship to enable a qualified maintainer as specified in § 80.1074 to perform tests and localize and repair faults in the radio equipment.

(2) Only persons that comply with the requirements of § 80.1074 may perform at-sea maintenance on radio installations required by this subpart.

(k) Satellite EPIRBs shall be tested at intervals not exceeding 12 months for all aspects of operational efficiency with particular emphasis on frequency stability, signal strength and coding. The test may be conducted on board the ship or at an approved testing or servicing station.

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46980, Aug. 7, 2003]

Operating Procedures for Distress and Safety Communications

§ 80.1109 Distress, urgency, and safety communications.

(a) Distress traffic consists of all messages relating to the immediate assistance required by the ship in distress, including search and rescue communications and on-scene communications. Distress traffic must as far as possible be on the frequencies contained in § 80.1077.

(b) Urgency and safety communications include: navigational and meteorological warnings and urgent information; ship-to-ship safety navigation communications; ship reporting communications; support communications for search and rescue operations; other urgency and safety messages and communications relating to the navigation, movements and needs of ships and weather observation messages destined for an official meteorological service.

(c) Intership navigation safety communications are those VHF radiotelephone communications conducted between ships for the purpose of contributing to the safe movement of ships. The frequency 156.650 MHz is used for intership navigation safety communications (see § 80.1077).

§ 80.1111 Distress alerting.

(a) The transmission of a distress alert indicates that a mobile unit or person is in distress and requires immediate assistance. The distress alert

is a digital selective call using a distress call format in bands used for terrestrial radiocommunication or a distress message format, which is relayed through space stations.

(b) The distress alert must be sent through a satellite either with absolute priority in general communication channels or on exclusive distress and safety frequencies or, alternatively, on the distress and safety frequencies in the MF, HF, and VHF bands using digital selective calling.

(c) The distress alert must be sent only on the authority of the person responsible for the ship, aircraft or other vehicle carrying the mobile station or the mobile earth station.

(d) All stations which receive a distress alert transmitted by digital selective calling must immediately cease any transmission capable of interfering with distress traffic and must continue watch on the digital selective call distress calling channel until the call has been acknowledged to determine if a coast station acknowledges the call using digital selective calling. Additionally, the station receiving the distress alert must set watch on the associated distress traffic frequency for five minutes to determine if distress traffic takes place. The ship can acknowledge the call using voice or narrowband direct printing as appropriate on this channel to the ship or to the rescue authority.

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46980, Aug. 7, 2003]

§ 80.1113 Transmission of a distress alert.

(a) The distress alert must identify the station in distress and its position. The distress alert may also contain information regarding the nature of the distress, the type of assistance required, the course and speed of the mobile unit, the time that this information was recorded and any other information which might facilitate rescue.

(b) The format of distress calls and distress messages must be in accordance with ITU–R Recommendation M.493–11, ''Digital Selective-calling system for use in the Maritime Mobile Service,'' with Annexes 1 and 2, 2004, and ITU–R Recommendation M.541–9, ''Operational Procedures for the Use of Digital Selective-Calling Equipment in the Maritime Mobile Service,'' with Annexes 1 through 5, 2004, as specified in § 80.1101. ITU–R Recommendation M.493–11, with Annexes 1 and 2, and ITU–R Recommendation M.541–9, with Annexes 1 through 5, 2004, are incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of these standards can be inspected at the Federal Communications Commission, 445 12th Street, SW., Washington, DC (Reference Information Center) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html*. The ITU–R Recommendation can be purchased from the International Telecommunication Union (ITU), Place des Nations, CH–1211 Geneva 20, Switzerland.

(c) Ship-to-shore distress alerts are used to alert Rescue Coordination Centers via coast stations or coast earth stations that a ship is in distress. These alerts are based on the use of transmissions via satellites (from a ship earth station or a satellite EPIRB) and terrestrial services (from ship stations and EPIRBs).

(d) Ship-to-ship distress alerts are used to alert other ships in the vicinity of the ship in distress and are based on the use of digital selective calling in the VHF and MF bands. The HF bands should not be used to notify ships in the vicinity unless no response is received within five minutes on VHF or MF.

(e) Shore-to-ship distress alert relays are used by a station or Rescue Coordination Center to relay information about a ship in distress to, as appropriate, all ships, a selected group of ships, or a specific ship by satellite and/or terrestrial means. The distress alert relay must contain the identification of the mobile unit in distress, its position and all other information which might facilitate rescue.

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46980, Aug. 7, 2003; 73 FR 4491, Jan. 25, 2008]

§ 80.1114 False distress alerts.

The provisions of §§ 80.334 and 80.335 apply to false distress alerts.

[68 FR 46980, Aug. 7, 2003]

§ 80.1115 Transmission of a distress alert by a station not itself in distress.

(a) A station in the mobile or mobile-satellite service which learns that a mobile unit is in distress must initiate and transmit a distress alert relay in any of the following cases:

(1) When the mobile unit in distress is not itself in a position to transmit the distress alert; or

(2) When the master or person responsible for the mobile unit not in distress or the person responsible for the land station determines that further help is necessary.

(b) A station transmitting a distress alert relay in accordance with paragraph (a) of this section or § 80.1121(c) must indicate that it is not itself in distress.

§ 80.1117 Procedure for receipt and acknowledgement of distress alerts.

(a) Normally, distress calls received using digital selective calling are only acknowledged using a DSC acknowledgement by a coast station. Ships should delay any acknowledgement in order to give sufficient time for a coast station to acknowledge the call. In cases where no acknowledgement has been heard and no distress traffic has been heard, the ship should transmit a distress alert relay to the coast station. Upon advice from the Rescue Coordination Center, the ship may transmit a DSC acknowledgement call to stop it from being repeated. Acknowledgement by digital selective calling of receipt of a distress alert in the terrestrial services must comply with ITU–R Recommendation M.541–9, ''Operational Procedures for the Use of Digital Selective-Calling Equipment in the Maritime Mobile Service,'' with Annexes 1 through 5, 2004. ITU–R Recommendation M.541–9 with Annexes is incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of this standard can be inspected at the Federal Communications Commission, 445 12th Street, SW., Washington, DC (Reference Information Center) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html*. The ITU–R Recommendation can be purchased from the International Telecommunication Union (ITU), Place des Nations, CH–1211 Geneva 20, Switzerland.

(b) Acknowledgement through a satellite of receipt of a distress alert from a ship earth station must be sent immediately (see § 80.1119).

(c) Acknowledgement by radiotelephony of receipt of a distress alert from a ship station or a ship earth station must be given in the following form:

(1) The distress signal MAYDAY;

(2) The call sign or other identification of the station sending the distress message, spoken three times;

(3) The words THIS IS (or DE spoken as DELTA ECHO in case of language difficulties);

(4) The call sign or other identification of the station acknowledging receipt, spoken three times;

(5) The word RECEIVED (or RRR spoken as ROMEO ROMEO ROMEO in case of language difficulties);

(6) The distress signal MAYDAY.

(d) The acknowledgement by direct-printing telegraphy of receipt of a distress alert from a ship station must be given in the following form:

(1) The distress signal MAYDAY;

(2) The call sign or other identification of the station sending the distress alert;

(3) The word DE;

(4) The call sign or other identification of the station acknowledging receipt of the distress alert;

(5) The signal RRR;

(6) The distress signal MAYDAY.

(e) The acknowledgement by direct-printing telegraphy of receipt of a distress alert from a ship earth station must be given by the coast earth station receiving the distress alert by retransmitting the ship station identity

of the ship transmitting the distress alert.

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46980, Aug. 7, 2003; 73 FR 4491, Jan. 25, 2008]

§ 80.1119 Receipt and acknowledgement of distress alerts by coast stations and coast earth stations.

(a) Coast stations that receive a distress alert should defer acknowledgement for a short interval so that receipt may be acknowledged by a Rescue Coordination Center. Where an acknowledgement is not forthcoming within 3 minutes, the coast station in receipt of distress alerts must ensure that they are routed to a Rescue Coordination Center as soon as possible. Coast stations must provide assistance for distress communications when requested to do so by the U.S. Coast Guard. (This subpart does not specify any radio watches for coast stations.)

(b) Coast earth stations in receipt of distress alerts must ensure that they are routed as soon as possible to a Rescue Coordination Center. Coast earth stations must relay, as soon as possible, an acknowledgement of a distress alert from a Rescue Coordination Center.

(c) Certain messages must be carried without charge, regardless of the means by which they are transmitted:

(1) Distress alert messages;

(2) Search and rescue coordination messages;

(3) Medical assistance messages where an imminent danger to life is present, or

(4) Urgent meteorological or navigational danger messages passed in the ship-to-shore direction.

§ 80.1121 Receipt and acknowledgement of distress alerts by ship stations and ship earth stations.

(a) Ship or ship earth stations that receive a distress alert must, as soon as possible, inform the master or person responsible for the ship of the contents of the distress alert.

(b) For VHF and MF, ships in receipt of a distress alert shall not transmit a distress alert relay, but should listen on the distress traffic channel for 5 minutes and, if appropriate, acknowledge the alert by radiotelephony to the ship in distress and inform the coast station and/or Rescue Coordination Center. Distress alert relays to ''all ships'' on these bands may only be sent by a ship who has knowledge that another ship in distress is not itself able to transmit the distress alert, and the Master of the ship considers that further help is necessary.

(c) For HF, ships in receipt of a distress alert shall listen on the distress traffic channel for 5 minutes. If no distress communications are heard and if the call is not acknowledged by a coast station, the ship shall transmit a distress relay on HF to the coast radio station and inform the Rescue Coordination Center. Distress alert relays to ''all Ships'' on HF may only be sent by a ship who has knowledge that another ship in distress is not itself able to transmit the distress alert, and the Master of the ship considers that further help is necessary.

(d) In cases where distress alert continues to be received from the same source, the ship may, after consultation with the Rescue Coordination Center, transmit a DSC acknowledgment to terminate the call.

(e) A ship station in receipt of a shore-to-ship distress alert relay (see § 80.1113(e)) should establish communication as directed and render such assistance as required and appropriate.

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46980, Aug. 7, 2003]

§ 80.1123 Watch requirements for ship stations.

(a) While at sea, all ships must maintain a continuous watch:

(1) On VHF DSC channel 70, if the ship is fitted with a VHF radio installation in accordance with § 80.1085(a)(2);

(2) On the distress and safety DSC frequency 2187.5 kHz, if the ship is fitted with an MF radio installation in accordance with § 80.1089(a)(2) or § 80.1091(a)(3);

(3) On the distress and safety DSC frequencies 2187.5 kHz and 8414.5 kHz also on at least one of the distress and safety DSC frequencies 4207.5 kHz, 6312 kHz, 12577 kHz, or 16804.5 kHz appropriate to the time of day and the geographical position of the ship, if the ship is fitted with an MF/HF radio installation in accordance with

§ 80.1091(a)(2)(ii) or § 80.1093(a) of this part (this watch may be kept by means of a scanning receiver limited to six distress and safety DSC frequencies); and

(4) For satellite shore-to-ship distress alert, if the ship is fitted with an INMARSAT ship earth station in accordance with § 80.1091(a)(1).

(b) While at sea, all ships must maintain radio watches 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.

(c) Every ship while at sea must maintain, when practicable, a continuous listening watch on VHF Channel 16. This watch must be kept at the position from which the ship is normally navigated or at a position which is continuously manned.

(d) On receipt of a distress alert transmitted by use of digital selective calling techniques, ship stations must set watch on the radiotelephone distress and safety traffic frequency associated with the distress and safety calling frequency on which the distress alert was received.

(e) Ship stations with narrow-band direct printing equipment must set watch on the narrow-band direct-printing frequency associated with the distress alert signal if it indicates that narrow-band direct-printing is to be used for subsequent distress communications. If practicable, they should additionally set watch on the radiotelephone frequency associated with the distress alert frequency.

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46981, Aug. 7, 2003; 73 FR 4492, Jan. 25, 2008]

§ 80.1125 Search and rescue coordinating communications.

(a) The distress signal consists of the word MAYDAY, pronounced in radiotelephony as the French expression ''M'aider''. For distress traffic by radiotelephony, when establishing communications, calls must be prefixed by the distress signal MAYDAY.

(b) Error correction techniques, in accordance with ITU-R Recommendation M.625–3, ''Direct-printing Telegraph Equipment Employing Automatic Identification in the Maritime Mobile Service,'' with Annex, 1995, as specified in § 80.1101, must be used for distress traffic by direct-printing telegraphy. All messages must be preceded by at least one carriage return, a line feed signal, a letter shift signal and the distress signal MAYDAY. ITU-R Recommendation M.625–3 with Annex is incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of this standard can be inspected at the Federal Communications Commission, 445 12th Street, SW., Washington, DC (Reference Information Center) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html*. The ITU-R Recommendation can be purchased from the International Telecommunication Union (ITU), Place des Nations, CH–1211 Geneva 20, Switzerland.

(c) Distress communications by direct-printing telegraphy should be in the ARQ mode when ships are communicating directly to the Coast Guard or other coast stations on channels which they normally guard. Other distress communications, including those on simplex channels provided for that purpose, should be in the broadcast forward error correction mode. The ARQ mode may subsequently be used when it is advantageous to do so.

(d) The Rescue Coordination Center responsible for controlling a search and rescue operation will also coordinate the distress traffic relating to the incident or may appoint another station to do so.

(e) The Rescue Coordination Center coordinating distress traffic, the unit coordinating search and rescue operations, or the coast station involved may impose silence on stations which interfere with that traffic. This instruction may be addressed to all stations or to one station only, according to circumstances. In either case, the following will be used:

(1) In radiotelephony, the signal SEELONCE MAYDAY, pronounced as the French expression ''silence, m'aider'';

(2) In narrow-band direct-printing telegraphy normally using forward-error correcting mode, the signal SILENCE MAYDAY. However, the ARQ mode may be used when it is advantageous to do so.

(f) Until they receive the message indicating that normal working may be resumed (see paragraph (h) of this section), all stations which are aware of the distress traffic, and which are not taking part in it, and which are not in distress, are forbidden to transmit on the frequencies in which the distress traffic is taking place.

(g) Stations following distress traffic that are able to continue normal service may do so when the distress traffic is well established and on condition that it observes the provisions of paragraph (f) of this section and that it does not interfere with distress traffic.

(h) When distress traffic has ceased on frequencies which have been used for distress traffic, the Rescue Coordination Center controlling a search and rescue operation must initiate a message for transmission on these frequencies indicating that distress traffic has finished.

(i) In radiotelephony, the message referred to in paragraph (h) of this section consists of:

(1) The distress signal MAYDAY;

(2) The call ''Hello all stations'' or CQ (spoken as CHARLIE QUEBEC) spoken three times;

(3) The words THIS IS (or DE spoken as DELTA ECHO in the case of language difficulties);

(4) The call sign or other identification of the station sending the message;

(5) The time when the distress situation has ceased;

(6) The name and call sign of the mobile station which was in distress;

(7) The words SEELONCE FEENEE pronounced as the French words ''silence fini''

(j) In direct-printing telegraphy, the message referred to in paragraph (h) of this section consists of:

(1) The distress signal MAYDAY;

(2) The call CQ;

(3) The word DE;

(4) The call sign or other identification of the station sending the message;

(5) The time when distress situation has ceased;

(6) The name and call sign of the mobile station which was in distress; and

(7) The words SILENCE FINI.

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46981, Aug. 7, 2003; 73 FR 4492, Jan. 25, 2008]

§ 80.1127 On-scene communications.

(a) On-scene communications are those between mobile unit in distress and assisting mobile units, and between the mobile units and unit coordinating search and rescue operations.

(b) Control of on-scene communications is the responsibility of the unit coordinating search and rescue operations. Simplex communications must be used so that all on-scene mobile stations may share relevant information concerning the distress incident. If direct-printing telegraphy is used, it must be in the forward error-correcting mode in accordance with ITU-R Recommendation M.625–3, with Annex, as specified in § 80.1101.

(c) The preferred frequencies in radiotelephony for on-scene communications are 156.8 MHz and 2182 kHz. The frequency 2174.5 kHz may also be used for ship-to-ship on-scene communications using narrow-band direct-printing telegraphy in the forward error correcting mode in accordance with ITU-R Recommendation M.625–3, ''Direct-printing Telegraph Equipment Employing Automatic Identification in the Maritime Mobile Service,'' with Annex, 1995, as specified in § 80.1101. ITU-R Recommendation M.625–3 with Annex is incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of this standard can be inspected at the Federal Communications Commission, 445 12th Street, SW., Washington, DC (Reference Information Center) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal__register/*

code__of__federal__regulations/ibr__locations.html. The ITU-R Recommendation can be purchased from the International Telecommunication Union (ITU), Place des Nations, CH–1211 Geneva 20, Switzerland.

(d) In addition to 156.8 MHz and 2182 kHz, the frequencies 3023 kHz, 4125 kHz, 5680 kHz, 123.1 MHz and 156.3 MHz may be used for ship-to-aircraft on-scene communications.

(e) The selection or designation of on-scene frequencies is the responsibility of the unit coordinating search and rescue operations. Normally, once an on-scene frequency is established, a continuous aural or teleprinter watch is maintained by all participating on-scene mobile units on the selected frequency.

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46981, Aug. 7, 2003]

§ 80.1129 Locating and homing signals.

(a) Locating signals are radio transmissions intended to facilitate the finding of a mobile unit in distress or the location of survivors. These signals include those transmitted by searching units and those transmitted by the mobile unit in distress, by survival craft, by float-free EPIRBS, by satellite EPRIBs, and by search and rescue radar transponders to assist the searching units.

(b) Homing singnals are those locating signals which are transmitted by mobile units in distress, or by survival craft, for the purpose of providing searching units with a signal that can be used to determine the bearing to the transmitting stations.

(c) Locating signals may be transmitted in the following frequency bands: 117.975–136 MHz, 121.5 MHz, 156–174 MHz, 406–406.1 MHz, and 9200–9500 MHz.

(d) The 9 GHz locating signals must be in accordance with ITU-R Recommendation M.628–3, ''Technical Characteristics for Search and Rescue Radar Transponders,'' with Annexes, 1994, as specified in § 80.1101. ITU-R Recommendation M.628–3 with Annexes is incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of this standard can be inspected at the Federal Communications Commission, 445 12th Street, SW., Washington, DC (Reference Information Center) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal__register/code__of__federal__regulations/ibr__locations.html.* The ITU-R Recommendation can be purchased from the International Telecommunication Union (ITU), Place des Nations, CH–1211 Geneva 20, Switzerland.

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46981, Aug. 7, 2003]

§ 80.1131 Transmissions of urgency communications.

(a) In a terrestrial system the announcement of the urgency message must be made on one or more of the distress and safety calling frequencies specified in § 80.1077 using digital selective calling and the urgency call format. A separate announcement need not be made if the urgency message is to be transmitted through the maritime mobile-satellite service.

(b) The urgency signal and message must be transmitted on one or more of the distress and safety traffic frequencies specified in § 80.1077, or via the maritime mobile-satellite service or on other frequencies used for this purpose.

(c) The urgency signal consists of the words PAN PAN. In radiotelephony each word of the group must be pronounced as the French word ''panne''.

(d) The urgency call format and the urgency signal indicate that the calling station has a very urgent message to transmit concerning the safety of a mobile unit or a person.

(e) In radiotelephony, the urgency message must be preceded by the urgency signal, repeated three times, and the identification of the transmitting station.

(f) In narrow-band direct-printing, the urgency message must be preceded by the urgency signal and the identification of the transmitting station.

(g) The urgency call format or urgency signal must be sent only on the authority of the master or the person

responsible for the mobile unit carrying the mobile station or mobile earth station.

(h) The urgency call format or the urgency signal may be transmitted by a land station or a coast earth station with the approval of the responsible authority.

(i) When an urgency message which calls for action by the stations receiving the message has been transmitted, the station responsible for its transmission must cancel it as soon as it knows that action is no longer necessary.

(j) Error correction techniques, in accordance with ITU-R Recommendation M.625–3, ''Direct-printing Telegraph Equipment Employing Automatic Identification in the Maritime Mobile Service,'' with Annex, 1995, as specified in § 80.1101, must be used for urgency messages by direct-printing telegraphy. All messages must be preceded by at least one carriage return, a line feed signal, a letter shift signal and the urgency signal PAN PAN. ITU-R Recommendation M.625–3 with Annex is incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of this standard can be inspected at the Federal Communications Commission, 445 12th Street, SW., Washington, DC (Reference Information Center) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html*. The ITU-R Recommendation can be purchased from the International Telecommunication Union (ITU), Place des Nations, CH–1211 Geneva 20, Switzerland.

(k) Urgency communications by direct-printing telegraphy should be in the ARQ mode when communicating directly to the Coast Guard or other coast stations on channels which they normally guard. Other distress communications, including those on simplex channels provided for that purpose, should be in the broadcast forward error correction mode. The ARQ mode may subsequently be used when it is advantageous to do so.

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46981, Aug. 7, 2003]

§ 80.1133 Transmission of safety communications.

(a) In a terrestrial system the announcement of the safety message must be made on one or more of the distress and safety calling frequencies specified in § 80.1077 using digital selective calling techniques. A separate announcement need not be made if the message is to be transmitted through the maritime mobile-satellite service.

(b) The safety signal and message must normally be transmitted on one or more of the distress and safety traffic frequencies specified in § 80.1077, or via the maritime mobile satellite service or on other frequencies used for this purpose.

(c) The safety signal consists of the word SECURITE. In radiotelephony, it is pronounced as in French.

(d) The safety call format or the safety signal indicates that the calling station has an important navigational or meteorological warning to transmit.

(e) In radiotelephony, the safety message must be preceded by the safety signal, repeated three times, and the identification of the transmitting station.

(f) In narrow-band direct-printing, the safety message must be preceded by the safety signal and the identification of the transmitting station.

(g) Error correction techniques, in accordance with ITU-R Recommendation M.625–3, ''Direct-printing Telegraph Equipment Employing Automatic Identification in the Maritime Mobile Service,'' with Annex, 1995, as specified in § 80.1101, must be used for safety messages by direct-printing telegraphy. All messages must be preceded by at least one carriage return, a line feed signal, a letter shift signal and the safety signal SECURITE. ITU-R Recommendation M.625–3 with Annex is incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of this standard can be inspected at the Federal Communications Commission, 445 12th Street, SW.,

Washington, DC (Reference Information Center) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html*. The ITU-R Recommendation can be purchased from the International Telecommunication Union (ITU), Place des Nations, CH–1211 Geneva 20, Switzerland.

(h) Safety communications by direct-printing telegraphy should be in the ARQ mode when communicating directly to the Coast Guard or other coast stations on channels which they normally guard. Other distress communications, including those on simplex channels provided for that purpose, should be in the broadcast forward error correction mode. The ARQ mode may subsequently be used when it is advantageous to do so.

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46981, Aug. 7, 2003]

§ 80.1135 Transmission of maritime safety information.

(a) The operational details of the stations transmitting maritime safety information in accordance with this section are indicated in the ITU List of Radiodetermination and Special Service Stations and the IMO Master Plan of Shore-Based Facilities.

(b) The mode and format of the transmissions mentioned in this section is in accordance with the ITU-R Recommendation M.540 as specified in § 80.1101.

(c) Maritime safety information is transmitted by means of narrow-band direct-printing telegraphy with forward error correction using the frequency 518 kHz in accordance with the international NAVTEX system (see § 80.1077).

(d) The frequency 490 kHz may be used, after full implementation of the GMDSS, for the transmission of maritime safety information by means of narrow-band direct-printing telegraphy with forward error correction (see § 80.1077).

(e) Internationally, the frequency 4209.5 kHz is used for NAVTEX-type transmissions by means of narrow-band direct-printing telegraphy with forward error correction (see § 80.1077).

(f) Maritime safety information is transmitted by means of narrow-band direct-printing telegraphy with forward error correction using the frequencies 4210 kHz, 6314 kHz, 8416.5 kHz, 12579 kHz, 16806.5 kHz, 19680.5, 22376 kHz, and 26100.5 kHz (see § 80.1077).

(g) Maritime safety information is transmitted via satellite in the maritime mobile-satellite service using the band 1530–1545 MHz (see § 80.1077).

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46982, Aug. 7, 2003]

Subpart X—Voluntary Radio Installations

GENERAL

§ 80.1151 Voluntary radio operations.

Voluntary ships must meet the rules applicable to the particular mode of operation as contained in the following subparts of this part and as modified by § 80.1153:

Operating Requirements and Procedures—Subpart C
Equipment Technical Requirements—Subpart E
Frequencies—Subpart H

§ 80.1153 Station log and radio watches.

(a) Licensees of voluntary ships are not required to maintain radio station logs.

(b) When a ship radio station of a voluntary ship is being operated, the appropriate general purpose watches must be maintained in accordance with §§ 80.147 and 80.310.

[73 FR 4492, Jan. 25, 2008]

VOLUNTARY TELEGRAPHY

§ 80.1155 Radioprinter.

Radioprinter operations provide record communications between authorized maritime mobile stations.

(a) *Supplementary eligibility requirements.* Ships must be less than 1600 gross tons.

(b) *Scope of communication.* (1) Ship radioprinter communications may be conducted with an associated private coast station.