

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 systems 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 Resolution A.811(19) (incorporated by reference, *see* § 80.7).

(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; 76 FR 67616, Nov. 2, 2011]

§ 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 or an AIS-SART, which must be stowed so that it is easily utilized (this device 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); 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, IMO Circular MSC/Circ.1040 (incorporated by reference, *see* § 80.7). *See* § 80.1105(k).

(b) Ships must carry either the most recent edition of the IMO publication entitled GMDSS Master Plan of Shore-Based Facilities, the U.S. NGA 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