

## § 80.1105

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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 INMARSAT 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]

### § 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 du-

plication 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 on-board 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

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the ship or at an approved testing or servicing station.

[51 FR 31213, Sept. 2, 1986, 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 re-

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sponsible 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.

[51 FR 31213, Sept. 2, 1986, 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.493–10, “Digital Selective-calling system for use in the Maritime Mobile Service,” with Annexes 1 and 2, 2000, as specified in § 80.1101. ITU-R Recommendation M.493–10 with Annexes 1 and 2 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/](http://www.archives.gov/federal_register/code_of_federal_regulations/)