



6712-01

## **FEDERAL COMMUNICATIONS COMMISSION**

### **47 CFR Parts 1, 25, 80 and 95**

**[WTB Docket No. 14-36; FCC 16-119]**

#### **Maritime Radio Equipment and Related Matters**

**AGENCY:** Federal Communications Commission.

**ACTION:** Final rule.

**SUMMARY:** In this document, the Federal Communications Commission (Commission or FCC) addresses a number of important issues regarding updating rules and requirements for technologies used to locate and rescue distressed ships and individuals in distress at sea or on land to provide better and more accurate data to rescue personnel. The Commission also addresses issues regarding radar equipment, the use of portable marine Very High Frequency (VHF) transmitters by persons on shore; permitting VHF digital small message service (VDSMS); and allowing assignment or transfer of control of ship station licenses. The Commission is amending its rules to permit the maritime community to make use of the most advanced and reliable communications technologies available for the alerting of search and rescue authorities when a vessel or individual is in distress, and to further the Commission's goal of ensuring that the spectrum allocated for emergency communications is used effectively and efficiently.

**DATES:** Effective **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]** except for the amendments to §§ 80.233, 80.1061, 95.1402 and 95.1403 which contain information collection requirements that are not effective until approved by the Office of Management and Budget. The FCC will publish

a document in the Federal Register announcing the effective date for those amendments. The incorporation by reference of certain publications listed in the rule is approved by the Director of the Federal Register as of **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, except for the publications in §§ 80.7 (amendatory instruction #7), 80.233, 80.1061, 95.1402 and 95.1403 which are in sections that contain information collection requirements that are not effective until approved by the Office of Management and Budget. The FCC will publish a document in the Federal Register announcing the approval date for the incorporation by reference of publications into those sections.

**ADDRESSES:** Federal Communications Commission, 445 12th Street, SW, Washington, DC 20554. In addition to filing comments with the Office of the Secretary, a copy of any comments on the Paperwork Reduction Act information collection requirements contained herein should be submitted to Cathy Williams, Federal Communications Commission, 1-C823, 445 12th Street, SW, Washington, DC 20554, or send an email to PRA@fcc.gov. The Commission will send a copy of this Report & Order, in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. 801(a)(1)(A).

**FOR FURTHER INFORMATION CONTACT:** James Shaffer, James.Shaffer@FCC.gov, Wireless Telecommunications Bureau, (202) 418-0687, or TTY (202) 418-7233. For additional information concerning the Paperwork Reduction Act information collection requirements contained in this document, contact Cathy Williams, Cathy.Williams@fcc.gov, (202) 418-2918, or send an email to PRA@fcc.gov.

**SUPPLEMENTARY INFORMATION:** This is a summary of the Federal Communications Commission's Report and Order (R&O), in WT Docket No. 14-36, FCC 16-119, adopted on August 31, 2016, and released on September 1, 2016. The full text of this document is available for inspection and copying during normal business hours in the FCC Reference Center, 445 12<sup>th</sup> Street, S.W., Washington, DC 20554. The full text may also be downloaded at: [www.fcc.gov](http://www.fcc.gov). Alternative formats are available to persons with disabilities by sending an e-mail to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or by calling the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

1. The Report and Order will permit the maritime community to make use of the most advanced and reliable communications technologies available for the alerting of search and rescue authorities when a vessel is in distress. Our decisions herein also further the Commission's goal of ensuring that the spectrum allocated for maritime communications is used effectively and efficiently.

2. The Report and Order incorporates by reference standards for certain marine and personal radio safety devices and a standard to provide VHF Digital Small Message Service (VDSMS) on certain marine VHF channels. For 406 MHz Emergency Position Indicating Radiobeacons (EPIRBs) the Radio Technical Commission for Maritime Services (RTCM) Standard 11000.3 provides the latest technical and testing procedures for EPIRBs and requires them to have an internal navigation device designed to provide position data upon activation. For 406 MHz Personal Locator Beacons (PLBs) the RTCM Standard 11010.2 provides updated technical requirements and adds test procedures for PLBs with integral GNSS receivers or internal navigation devices. For Satellite Emergency Notification Devices (SENDs) RTCM Standard 12800.0 provides

minimum requirements for the functional and technical performance of SENDs to ensure reliability in emergency situations. For Maritime Survivor Locating Devices (MSLDs) RTCM Standard 11901.1 provides minimum functional and technical performance of MSLDs. For Automatic Identification System Search and Rescue Transmitters (AIS-SARTs) the International Maritime Organization (IMO) Resolution MSC.246(83) and the International Electrotechnical Commission (IEC) 61097-14 provide the minimum performance requirements and technical specifications for AIS-SARTs. Finally, for VHF digital small message services (VDSMS) RTCM Standard 12301.1 provides technical standard that enables transmission of short digital messages without interfering with other communications on the same channel. Copies of the RTCM documents are available and may be obtained from the Radio Technical Commission for Maritime Services, 1611 N. Kent Street, Suite 605, Arlington, Virginia 22209. Copies of the IMO documents are available and may be obtained from the International Maritime Organization (IMO), 4 Albert Embankment, London SE1 7SR, United Kingdom; <http://www.imo.org>; Tel. + 44 (0)20 7735 7611; Fax + 44 (0)20 7587 3210; email: [info@imo.org](mailto:info@imo.org). Copies of the IEC documents are available and may be obtained from International Electrotechnical Commission (IEC), 3 Rue de Varembe, CH-1211, Geneva 20, Switzerland; [www.iec.ch](http://www.iec.ch); phone: + 41 22 919 02 11; fax: + 41 22 919 03 00; email: [info@iec.ch](mailto:info@iec.ch). (IEC publications can also be purchased from the American National Standards Institute (ANSI) through its NSSN operation ([www.nssn.org](http://www.nssn.org)), at Customer Service, American National Standards Institute, 25 West 43rd Street, New York NY 10036, telephone (212) 642-4900.) The documents are

available for inspection at Commission headquarters at 445 12th Street SW.,  
Washington, DC 20554.

Emergency Position Indicating Radio Beacons (EPIRBs)

3. EPIRBs are carried on board ships to alert others of a distress situation, and to assist search and rescue (SAR) personnel in locating those in distress. Specifically, an EPIRB transmits a digital signal on 406.0-406.1 MHz (406 MHz) that is detected by the search and rescue satellite-aided tracking (SARSAT) system operated by the National Oceanic and Atmospheric Administration (NOAA). The digital signal provides distress alerting, homing assistance, country and identification code of the station in distress, and other pertinent information. Traditional EPIRBs rely on satellite Doppler shift to identify the distress location. Some EPIRBs, however, transmit their Global Navigation Satellite System (GNSS) coordinates, which enables SAR authorities to determine an accurate location significantly faster than satellite Doppler shift.

4. EPIRBs must comply with the Radio Technical Commission for Maritime Services (RTCM) EPIRB standard incorporated by reference in our rules. RTCM updated its EPIRB standard to require, among other conditions, an internal navigation device designed to provide position data upon activation. The Commission asked if the new RTCM EPIRB standard should be incorporated by reference in our rules, and sought comment on the appropriate timetable for phasing out certification, manufacture, sale and use of EPIRBs that do not comply with the new standard.

5. All commenters addressing the issue support revising Part 80 to incorporate by reference the revised RTCM EPIRB standard. We agree that such an action is in the public interest because better location availability reduces search time and therefore

contributes to the success of emergency rescues. Moreover, most commenters state that the price difference between EPIRBs that broadcast position data and those that do not has diminished or even disappeared, so adopting this requirement will impose little or no additional cost on end-users who purchase EPIRBs that comply with the new standard. We amend our rules to incorporate by reference the revised RTCM EPIRB standard<sup>1</sup> as proposed.<sup>2</sup>

6. With respect to the appropriate timeline for phasing out EPIRBs that do not comply with the new standard, commenters generally agree that the Commission should cease accepting applications for certification of non-compliant EPIRBs beginning one year after the effective date of the rules adopted herein. With minor variations,

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<sup>1</sup> After the Notice of Proposed Rulemaking (Notice) was released, RTCM revised the standard. See RTCM Standard 11000.4 for 406 MHz Satellite Emergency Position Indicating Radio Beacons (EPIRBs), dated June 1, 2015. The amended standard adds an option for the use of AIS position locating in addition to or in lieu of 121.5 MHz homing. NTIA requests that we incorporate the amended standard, but we decline to add the AIS option without notice and comment. Until such time as the amended standard is incorporated into part 80, manufacturers may request waivers to permit the equipment authorization and use of AIS EPIRBs.

<sup>2</sup> We also, as proposed, remove references in part 80 to COSPAS-SARSAT C/S T.001, Specification for COSPAS-SARSAT 406 MHz Distress Beacons, and COSPAS-SARSAT C/S T.007 distress beacons specifications because they are included in the RTCM EPIRB standard, and EPIRBs must be tested for compliance with these specifications before being submitted for equipment authorization. We decline RTCM's suggestion to incorporate by reference the revised version of 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," 2004 (ITU-R M.633-3), as beyond the scope of the Notice, because the Commission did not propose to amend the rules to revise the version of ITU-R M.633 that is incorporated by reference.

commenters support prohibiting the continued manufacture, importation, and sale of non-compliant EPIRBs three years after the effective date. We conclude that these time frames are reasonable, and amend our rules to set forth these deadlines. With respect to continued use of non-compliant EPIRBs, most commenters argue that there is no need to establish a date after which use of such EPIRBs will be prohibited because most boat owners replace their EPIRBs at the battery replacement date, which is typically five years after the EPIRB is sold, and one commenter proposes that use of non-compliant EPIRBs be prohibited six years after the rules become effective to allow owners to obtain the full five-year battery life of their current devices. We agree with the commenters that no deadline is required for vessels that voluntarily carry EPIRBs. We note that use by voluntary vessels of EPIRBs that do not comply with the new standard will continue to provide SAR personnel with the same quality of location information as they do currently. However, we adopt a six-year deadline for vessels that are required under our rules to carry EPIRBs, in order to ensure that these vessels provide better location availability during distress situations. We conclude that these transition periods fairly balance the interest in minimizing the compliance burden against the benefits of deploying new maritime safety features expeditiously.

7. Finally, we adopt our proposal to amend our rules to make plain that the use of prior-generation EPIRBs that operate only on 121.5/243 MHz and do not operate on 406 MHz is prohibited. Commenters support this proposal, which simply clarifies a prohibition that was adopted in 2002.

#### Personal Locator Beacons (PLBs)

8. Like EPIRBs, PLBs send distress signals on 406 MHz that are detected by the COSPAS-SARSAT satellite system and relayed to SAR authorities, but PLBs can be used on land and are intended to meet the distress alerting needs of the general public. PLB use is licensed by rule under part 95 of the Commission's rules, which governs the Personal Radio Services (PRS).

9. PLBs must comply with the RTCM PLB standard incorporated by reference in our rules. RTCM revised its PLB standard to update various technical requirements and to add test procedures for PLBs with integral GNSS receivers or internal navigation devices. The Commission asked if the new RTCM PLB standard should be incorporated by reference in our rules and, if so, sought comment on the appropriate timetable for phasing out the certification, manufacture, sale and use of PLBs that do not comply with the new standard.

10. All commenters who address the question support revising part 95 to incorporate by reference the revised RTCM PLB standard. We agree that such an action is in the public interest because better location availability minimizes search time and therefore contributes to the success of emergency rescues. Moreover, commenters do not believe that compliance with the new testing protocol will materially affect PLB prices, so adopting this requirement will impose little or no additional cost on purchasers of PLBs that comply with the new standard. We amend our rules to incorporate by reference the revised RTCM PLB standard.<sup>3</sup>

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<sup>3</sup> As suggested by commenters, we also remove the technical requirements set forth in section 95.1402(b) of the Commission's rules because those requirements are included in the revised RTCM PLB standard. We also, as above with respect to EPIRBs, remove the references in part 95 to COSPAS-SARSAT T.007 because it is included in the RTCM PLB standard.

11. With respect to the appropriate timeline for phasing out PLBs that do not comply with the new standard, commenters agree that the Commission should cease accepting applications for certification of non-compliant PLBs beginning one year after the effective date of the rules adopted herein. With some minor variations, commenters support prohibiting the continued manufacture, importation, and sale of non-compliant PLBs three years after the effective date. We conclude that these time frames are reasonable, and amend our rules to set forth these deadlines. We agree with the majority of commenters that there is no need to establish a date after which use of non-compliant PLBs will be prohibited, because PLB use is voluntary and the continued use of PLBs that do not comply with the new standard will deliver the current quality of service to SAR personnel for distress alerting and locating capabilities. We conclude that these transition periods fairly balance the interest in minimizing the compliance burden against the benefits of deploying new safety features expeditiously.

12. The Commission also sought comment on whether, as recommended by the Secretariat of the International COSPAS-SARSAT Programme (COSPAS-SARSAT), to amend part 95 to limit the use of 406 MHz band by PLBs to “distress and safety of life communications,” instead of “distress and safety communications.” This clarification would make clear that PLB use should be under emergency conditions and for survival purposes. While non-life threatening emergencies or safety communications are important functions, use of PLBs to alert rescuers should be limited to situations of grave and imminent danger. This excludes some situations that might be broadly considered as safety communications. We agree with RTCM, the only commenter addressing this issue, that this clarification of the intended use of PLBs would be beneficial, and we

amend the rule accordingly. As recommended by COSPAS-SARSAT, we also amend the rules to clarify that, rather than “issu[ing]” unique identification codes, NOAA recognizes codes that manufacturers create based on COSPAS-SARSAT guidance.

13. PLB owners must register their beacons with NOAA.<sup>4</sup> Part 95 requires manufacturers to include a postage pre-paid registration card with each PLB, and to set forth NOAA’s mailing address on the PLB label.<sup>5</sup> Commenters state that NOAA’s current preferred method of beacon registration is online. We will therefore add the NOAA website information to our rules, but decline ACR’s suggestion that we require manufacturers to add the website address to the PLB label as beyond the scope of the Notice, which did not propose to change the labeling requirements.<sup>6</sup> Manufacturers may of course include such information with each PLB if they choose.

#### Satellite Emergency Notification Devices (SENDS)

14. Although there is no established definition for the term “SENDS,” it is often used to refer to small transmitters that provide a means for individuals in remote areas to alert others of an emergency situation and to aid SAR personnel to locate those in distress. These devices differ from PLBs in that they operate on satellite networks other than the 406 MHz COSPAS-SARSAT system. The service provided is typically a subscription

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<sup>4</sup> No commenter supported COSPAS-SARSAT’s request that the Commission amend part 95 to emphasize that PLB owners are required to register their beacons. We conclude that the proposal is unnecessary because the rule already makes this clear.

<sup>5</sup> We note in response to commenters’ concern that the mailing address set forth in the rule is obsolete that the rule was updated after those comments were filed.

<sup>6</sup> We note that ACR’s suggestion that we prohibit the marketing as a “Personal Locator Beacon” or “PLB” of any device that does not meet the RTCM standard is under consideration in another proceeding.

service that sends data to a satellite, and is then used to create a Web-based report that enables the tracking of persons.

15. RTCM, with participation from the mobile satellite industry, has developed minimum requirements for the functional and technical performance of SENDs to ensure that these devices will work with a high degree of reliability in emergency situations. The Commission sought comment on RTCM's proposal that the part 95 rules be amended to incorporate by reference its SEND standard, and to prohibit devices that do not meet that standard from being marketed as SENDs. The Commission noted, however, that such devices do not require authorization under part 95 because they already can operate pursuant to the part 25 mobile satellite service (MSS) rules, and tentatively concluded that incorporating what is effectively a voluntary standard is unnecessary and would not further the public interest.

16. Commenters are split regarding whether we should incorporate by reference RTCM's SEND standard into our rules. Most argue that it should be incorporated because users rely on satellite emergency notification services in emergency situations and expect devices to perform in a manner similar to PLBs (which, as discussed above, are required to meet the relevant RTCM standard), but the part 25 MSS rules do not include any specific provisions to ensure that devices will perform with the degree of reliability specified in the RTCM standard. ACR Electronics Inc. (ACR), a manufacturer of survival products, argues further that compliance with the RTCM SEND standard should be mandatory for all satellite communications devices outside the 406 MHz band that provide emergency distress notification functions, except for devices that offer real-time two-way switched voice service. Iridium Satellite LLC (Iridium), an MSS provider,

argues that incorporation by reference of the standard is unnecessary because voluntary compliance with the SEND standard by manufacturers and MSS providers is sufficient.

17. We are adopting RTCM's proposal to the extent that we incorporate the RTCM SEND standard by reference under the part 25 MSS rules for devices that are marketed as SENDs. We address commenters' concerns about consumer expectations by amending part 25 to specify that the terms "SEND" and "Satellite Emergency Notification Device" may be used in marketing and sales only for devices that meet the requirements set forth in the RTCM SEND standard. We agree with Iridium that requiring all devices that are capable of transmitting an emergency distress alert to meet the RTCM SEND standard is overbroad.<sup>7</sup>

#### Maritime Survivor Locating Devices (MSLDs)

18. MSLDs are intended for use by persons at risk of falling into the water such as mariners and workers on marine installations or docks, or by divers returning to the surface out of sight of their dive boats. They can be worn on or as part of a garment or life jacket, and are intended to facilitate the rescue of personnel in the vicinity of their vessel or structure so that immediate assistance can be rendered without a time-consuming and expensive SAR operation. In light of this narrower focus, MSLDs do not operate on a frequency monitored by COSPAS-SARSAT, and do not transmit with as much power or for as long as EPIRBs or PLBs. Instead, MSLDs transmit on frequencies that are received on a device monitored by personnel at the MSLD-wearer's vessel or facility.

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<sup>7</sup> Implementation of such a requirement could require a more precise definition of what devices are covered, which is beyond the scope of the record in this proceeding.

19. RTCM has developed minimum requirements for the functional and technical performance of MSLDs. The Commission proposed to incorporate by reference RTCM's MSLD standard into the part 95 rules to allow certification and use of devices meeting the standard, and asked whether manufacturers should be required to coordinate their applications for equipment certification of MSLDs with the United States Coast Guard (Coast Guard). The Commission also sought comment on the appropriate timetable for phasing out manufacture, sale and use of devices intended to aid in the location of persons in the water that were approved by waiver but do not comply with RTCM's MSLD standard.

20. Commenters agree that RTCM's MSLD standard should be incorporated by reference in our rules. We agree that allowing for certification and use of MSLDs will enhance safety for individuals on or near the water by providing for earlier alerting and rescues that are both more rapid and effective and less costly, and we therefore incorporate the standard into part 95 as proposed.<sup>8</sup> We also agree with commenters who support coordination with the Coast Guard for equipment authorization to assure that MSLDs meet the RTCM MSLD standard, and will therefore also require such coordination. As suggested by RTCM, certification of MSLDs that include a function

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<sup>8</sup> After the Notice was released, RTCM revised the standard. The amended standard adds an option permitting "open loop" operation allowing alerting of all vessels in the vicinity with Digital Selective Calling (DSC) radios of the alert situation. DSC is a digital signaling system that automatically allows ship and shore stations to call one another directly, similar to the use of a telephone, and establish contact. RTCM requests that we incorporate its amended MSLD standard but we decline to authorize the "open loop" option without notice and comment. Instead, we incorporate by reference the 2012 version of RTCM's MSLD standard.

intended to send a distress message directly to the Coast Guard or any other SAR organization will not be permitted unless that function is endorsed by the Coast Guard in its pre-certification review. With respect to the appropriate timeline for phasing out devices that were approved by waiver but do not comply with the standard, we will prohibit the continued manufacture, importation, and sale of non-compliant devices as of one year after the effective date of the rules adopted herein, but will permit the continued use of those devices.

#### Automatic Identification System Search and Rescue Transmitters (AIS-SARTs)

21. Like EPIRBs, SARTs are carried on board ships and survival craft to alert others of a distress situation, and to assist SAR personnel in locating those in distress.

Currently, the part 80 rules authorize only traditional SARTs, which act as active reflectors of 9.2-9.5 GHz (9 GHz) radar signals. Each time a 9 GHz SART detects a pulse from the radar of a searching vessel that is within approximately five nautical miles, the SART transmits a signal that is displayed on the screen of the radar that activated it.

22. An AIS-SART, as part of the AIS maritime navigation safety communications system, is used to locate a survival craft or distressed vessel by transmitting a unique identification code and GPS coordinates to all AIS-enabled devices within VHF radio range. The International Maritime Organization (IMO) has amended the GMDSS regulations to permit AIS-SARTs as an alternative to 9 GHz SARTs. In addition, the International Electrotechnical Commission (IEC) approved performance and technical specifications for AIS-SARTs. In the *Notice*, the Commission proposed to incorporate by reference the IMO and IEC standards for AIS-SARTs into our rules, which would allow

certification and use of AIS-SARTs meeting those standards, and to require manufacturers to coordinate AIS-SART equipment certification applications with the Coast Guard.

23. We agree with the commenters that AIS-SARTs represent an important tool for improving maritime safety and have gained international acceptance, and therefore revise Part 80 to incorporate by reference the IMO and IEC standards for AIS-SARTs. We will require that AIS-SART equipment certification applications be coordinated with the Coast Guard, as is required for other AIS equipment. We agree with RTCM's suggestion to use the term "search and rescue locating devices" when referring to both traditional SARTs and AIS-SARTs, but we decline, as beyond the scope of this proceeding, its request that we amend the rules regarding the stowage of these devices on ships equipped with free-fall lifeboats.

#### Ship Radar

24. Section 80.273 of the Commission's Rules contains the technical requirements for radar equipment installed on ships, and incorporates by reference relevant international standards for such equipment, including IEC 62388 for compulsory vessels and IEC 62252 for voluntary vessels. As proposed in the Notice, we amend part 80 to remove the incorporation by reference of IEC 62252 because manufacturers have not designed or built radar sets to this standard, and IEC has withdrawn the standard. We understand that RTCM is in the process of drafting new ship radar standards for voluntary vessels and anticipates publishing these standards in the near future. Voluntary vessels are permitted to carry radar equipment intended for use solely on voluntary vessels, without reference to any particular standard, until appropriate standards are developed and adopted. As

proposed, we also correct a cross-reference to clarify that radar installations on compulsory vessels must meet IEC 62388.<sup>9</sup>

#### Portable Marine VHF Radios on Shore

25. Section 80.115(a)(2) of the Commission’s Rules prohibits the use on shore of a portable marine VHF radio associated with a vessel. The GMDSS Task Force proposed that the rule be amended to allow persons on shore within three miles of the water to use portable marine VHF radios to communicate with the vessel that is subject to the ship station authorization. The Commission, however, noted that limitations on the use of maritime frequencies are intended to minimize interference to maritime communications (particularly distress and safety messages), and tentatively concluded that permitting the use of portable marine VHF radio transmitters on shore would not further the public interest. We questioned the practical enforceability of a three-mile rule, and asked whether shore parties’ communications needs could be met by commercial mobile radio service (CMRS) or PRS options. The Commission also asked commenters supporting the proposal to discuss what limitations would be appropriate to minimize the impact on maritime communications.

26. The GMDSS Task Force acknowledges that CMRS options likely will be preferred in areas with reliable coverage, and asserts that this makes it unlikely that use of low-powered portable marine VHF radio radios on land will interfere with maritime communications. It also argues that permitting such use will further the public interest by

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<sup>9</sup> In addition, as suggested by commenters, we revise section 80.273(b) to agree with the latest IEC 62388 standard and require “effective diameter of not less than 320 millimeters (12.6 inches)” for the radar display, rather than 340 millimeters (13.4 inches).

encouraging more boaters to carry a VHF radio, which has safety benefits not available from CMRS or PRS options because marine VHF channels can be used to contact the Coast Guard and other nearby vessels in a distress situation, for bridge-to-bridge communications, and to receive maritime safety information broadcasts.

27. We agree with commenters that the public interest will be served by allowing the use of portable VHF radios ashore, so long as it is limited to enhancing the usefulness of marine VHF radios without negatively affecting maritime communications. Such limited onshore use will promote flexibility in the use of marine radio equipment in a manner that furthers maritime safety by encouraging more boaters to carry a VHF radio. Specifically, as suggested by ACR, we will permit use of portable marine VHF radios only in areas adjacent to the water, such as docks and beaches. In addition, as suggested by RTCM, and consistent with our requirements for offshore use, onshore communications using such radios must relate to the operational and business needs of the associated vessel, and must be limited to the minimum practicable transmission time.<sup>10</sup> We amend section 80.115 accordingly.<sup>11</sup> We caution operators that the Commission's Enforcement Bureau will continue to investigate complaints against operators who improperly use marine VHF radios, particularly any violation that concerns unauthorized transmissions on 156.800 MHz (VHF Channel 16).

#### VHF Digital Small Message Services (VDSMS)

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<sup>10</sup> We remind all operators that superfluous radiocommunication is considered an unauthorized transmission in the Maritime Services. *See* 47 CFR 80.89(a).

<sup>11</sup> We amend the rule to clarify that portable VHF DSC radios should operate on frequency 156.525 MHz (Channel 70), which is the DSC Distress, Safety and Calling channel but was not specifically listed in section 80.115.

28. VDSMS is intended to provide short-distance digital messaging ship-to-ship, shore-to-ship and ship-to-shore. The International Telecommunication Union (ITU) has recognized the future need for worldwide systems to exchange data and email on maritime VHF channels and the availability of new digital data systems that provide this service efficiently and without harmful interference. In the United States, however, maritime communications generally are limited to particular emission designators in order to avoid interference between users; a full range of data transmissions is permitted only on VHF Public Coast frequencies and one channel in Alaska.

29. RTCM developed a technical standard for VDSMS that enables transmission of short digital messages without interfering with other communications on the same channel. The Commission proposed to amend part 80 to incorporate by reference the RTCM VDSMS standard in order to permit transmission of short data messages on VHF maritime private communications frequencies. It tentatively concluded that accommodating VDSMS in the Commission's rules would advance the Commission's goal of promoting flexibility and efficiency in the use of marine radio equipment in a manner that would further maritime safety.

30. RTCM, the only commenter addressing this issue, agrees that part 80 should be revised to incorporate by reference its VDSMS standard. It argues that adopting a single VDSMS standard will avoid use of a variety of different and potentially incompatible data protocols, and ensure VDSMS communications are not disrupted. We agree, and amend part 80 to incorporate by reference the RTCM VDSMS standard. We note that VDSMS will not be permitted on or adjacent to marine safety and security channels and

other channels excluded under Appendix 18 of the ITU Radio Regulations.<sup>12</sup> Further, VDSMS operation on the non-excluded VHF frequencies is subject to existing eligibility requirements.

#### Prohibition of Applications to Assign or Transfer Control of Ship Licenses

31. Under section 1.948 of the Commission’s rules, ship station licenses may not be assigned or transferred. Instead of efficiently assigning or transferring the license to another entity, ship station licensees must submit the ship station license to the Commission for cancellation; and the entity acquiring the vessel must instead apply for new ship licenses in its own name. In the Notice, the Commission noted that most other types of wireless radio licenses may be assigned or transferred, and proposed to remove the prohibition on the assignment or transfer of ship station licenses. The Commission reasoned that “[t]he prohibition on assigning or transferring ship licenses . . . requires applicants and Commission licensing personnel to undertake a relatively cumbersome process when control of ship radio station assets are to change hands, and there appears to be little public interest benefit, if any, for continuing the prohibition.”

32. We believe that it would serve the public interest to permit the assignment and transfer of control of ship station licenses. Permitting the assignment and transfer of control of ship station licenses would be more administratively efficient than maintaining the current prohibition on applications to assign or transfer such licenses, and would

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<sup>12</sup> We include port operations channels among the marine safety channels on which VDSMS will not be permitted. Port operations communications are “[c]ommunications in or near a port, in locks or in waterways between coast stations and ship stations or between ship stations, which relate to the operational handling, movement and safety of ships and in emergency to the safety of persons.”

reduce transactional costs for ship station licensees.<sup>13</sup> RTCM, the only commenter addressing this issue, agrees that it would be beneficial to permit the assignment and transfer of ship station licenses. We will therefore amend section 1.948(b)(5) to remove the prohibition of applications to assign or transfer control of ship station licenses. Ship station licensees and potential licensees are cautioned that failure to obtain Commission approval for an assignment or transfer of control of a ship station license may result in enforcement action being taken against the entities involved.

#### Editorial Corrections

33. As proposed, we correct certain part 80 rules to change erroneous references to Title II of the Communications Act to refer to Title III, restore subparagraphs that were inadvertently deleted, and correct typographical errors. No commenter addressed these corrections.

### **PROCEDURAL MATTERS**

#### **A. Paperwork Reduction Act Analysis**

34. This document contains new information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. It will be submitted to the Office of Management and Budget (OMB) for review under section 3507(d) of the PRA. OMB, the general public, and other Federal agencies are invited to comment on the new or modified information collection requirements contained in this proceeding. In addition, we note that pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4), we previously sought specific comment

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<sup>13</sup> In addition, we discern no basis to treat ship station licenses differently in this regard from the other types of wireless licenses for which assignment and transfer of control applications are accepted.

on how the Commission might “further reduce the information collection burden for small business concerns with fewer than 25 employees.”

35. In this present document, we have we establish requirements for the certification of MSLDs, and AIS-SARTs devices. The rule would require, *inter alia*, that applicants for certification submit specified information, including copies of test reports and test data, to the United States Coast Guard prior to filing their applications with the Commission, and that they include with their applications to the Commission copies of letters from the United States Coast Guard stating that the device in question satisfies all of the requirements of all the pertinent standard. We find that the certification requirements adopted herein would not impose an undue burden or excessive cost on such manufacturers, including those that have fewer than 25 employees.

#### **B. Report to Congress**

The Commission will send a copy of this R&O in a report to be sent to Congress and the General Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. 801(a)(1)(A).

#### **C. Final Regulatory Flexibility Analysis**

36. As required by the Regulatory Flexibility Act (RFA), the Commission has prepared a Final Regulatory Flexibility Analysis (FRFA) of the rules adopted in this Report and Order.

37. Summary. The rules adopted in the Report and Order are intended update the rules and requirements for technologies used to locate and rescue distressed ships and individuals in distress at sea or on land to provide better and more accurate data to rescue personnel. The Commission amends its rules to (a) require emergency position

indicating radio beacons (EPIRBs) to be capable of broadcasting position data when activated; (b) update the equipment standards for Personal Locator Beacons (PLBs); (c) provide that only devices that meet the RTCM standard for Satellite Emergency Notification Devices (SENDs) may be marketed for use in the United States as SENDs; (d) permit equipment certification and use of Maritime Survivor Locating Devices (MSLDs) that comply with RTCM standards; (e) provide for equipment certification and use of Automatic Identification System Search and Rescue Transmitters (AIS-SARTs) that comply with international standards; (f) clarify the rules regarding ship radar equipment; (g) permit the use of portable marine VHF radio transmitters by persons on shore that are on or adjacent to the dockside of the associated vessel; (h) permit VHF digital small message services (VDSMS) on certain maritime VHF channels; (i) allow assignment or transfer of control of ship station licenses; and (j) correct certain typographical errors.

38. Description and Estimate of the Number of Small Entities to Which Rules Will Apply. The closest estimate of the number of small businesses that may potentially be affected by our rule changes is the SBA's "Wireless Telecommunications Carriers (except Satellite)" category. This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular phone services, paging services, wireless Internet access, and wireless video services. The appropriate size standard under SBA rules for the category Wireless Telecommunications Carriers (except satellite) is that a business is small if it has 1,500 or fewer employees. Census data for

2007 show that there were 1,383 firms that operated for the entire year. Of this total, 1,368 firms had employment of fewer than 1000 employees. Thus under this category and the associated small business size standard, the Commission estimates that the majority of wireless telecommunications carriers (except satellite) are small.

39. Marine Radio Services. Small businesses in the aviation and marine radio services use a marine very high frequency (VHF), medium frequency (MF), or high frequency (HF) radio, any type of emergency position indicating radio beacon (EPIRB) and/or radar, an aircraft radio, and/or any type of emergency locator transmitter (ELT). The Commission has not developed a definition of small entities specifically applicable to these small businesses. For purposes of this analysis, the Commission uses the SBA small business size standard for the category Wireless Telecommunications Carriers (except satellite),” which is 1,500 or fewer employees. Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year. Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Most applicants for recreational licenses are individuals. Approximately 581,000 ship station licensees and 131,000 aircraft station licensees operate domestically and are not subject to the radio carriage requirements of any statute or treaty. For purposes of our evaluations in this analysis, we estimate that there are up to approximately 712,000 licensees that are small businesses (or individuals) under the SBA standard. In addition, between December 3, 1998 and December 14, 1998, the Commission held an auction of 42 VHF Public Coast licenses in the 157.1875-157.4500 MHz (ship transmit) and 161.775-162.0125 MHz (coast transmit) bands. For purposes of the auction, the Commission defined a “small” business as an entity that, together with

controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$15 million dollars. In addition, a “very small” business is one that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$3 million dollars. There are approximately 10,672 licensees in the Marine Coast Service, and the Commission estimates that almost all of them qualify as “small” businesses under the above special small business size standards and may be affected by rules adopted pursuant to the Report and Order.

40. Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing. The U.S. Census defines this industry as comprising “establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by the establishments are transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment. The SBA has established a size standard for this industry which classifies any businesses in this industry as small if it has 750 or fewer employees. Census data for 2007 indicate that 939 such businesses operated in that year. Of that number, 912 businesses operated with fewer than 500 employees. Based on this data, we conclude that a majority of businesses in this industry are small by the SBA standard.

41. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities. In the Report and Order we adopt six rule amendments that may affect reporting, recordkeeping or other compliance requirements for small entities. First, we amend section 80.1061 of the rules to require that EPIRBs comply with the RTCM Standard 11000.3, and to mandate that vessels that are required to carry EPIRBs

replace their existing radiobeacons with EPIRBs that meet the new standard within six years of the effective date of the rule amendment. Second, we amend section 95.1402 of the rules to require that PLBs comply with the RTCM Standard 11010.2. Third, we adopt section 25.301 of the rules to specify that the term SEND refers only to a device that meets the requirements set forth in the RTCM SEND Standard 12800.0 and make it unlawful to market for use in the United States a non-compliant device as a SEND. Fourth, we amend section 95.1043 of the rules to require that MSLDs comply with the RTCM Standard 11901.1 Fifth, we amend section 80.233 of the rules to require that AIS-SARTs comply with the IEC Standard 61097-14 Ed. 1.0 (2010-02) and IMO Resolution MSC.246(83). Sixth, we amend section 80.364 of the rules to require that VDSMS equipment comply with the RTCM Standard 12301.1 We conclude that none of these matters will have a direct, significant economic impact on a substantial number of small entities. The equipment standards are in use internationally, so it imposes no additional burden on manufacturers to meet those standards for equipment to be used in the United States. Moreover, most boat owners replace their EPIRBs at the battery replacement date, which is typically five years after the EPIRB is sold, so a six-year deadline for certain vessels will not have a significant impact.

42. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration. The Chief Counsel did not file any comments in response to the proposed rules in this proceeding.

43. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered. With respect to all of the rules adopted in the Report and Order that may affect reporting, recordkeeping and other compliance requirements for

small entities, as identified in this FRFA we have considered how we might minimize the economic impact on small entities, and we have considered alternative measures that might minimize that impact. As a general matter, the alternatives considered, and in many cases adopted, include exempting small entities from the requirement; providing “grandfathering” protection from the requirement; providing a transition period to give either small entities or all affected entities additional time to come into compliance; and imposing a less burdensome requirement, either for small entities or for all affected entities. In addition, to the extent we establish here new standards for authorization of marine radio equipment, we have generally required compliance with performance standards, rather than prescribing a particular equipment design.

#### **ORDERING CLAUSES**

44. Accordingly, IT IS ORDERED, pursuant to sections 4(i), 303(r), and 332(a)(2) of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 303(r), 332(a)(2), that parts 1, 25, 80, and 95 of the Commission’s rules ARE AMENDED as set forth in the attached Appendix B, and such rule amendments SHALL BE EFFECTIVE thirty (30) days after publication of the rules amendments in the Federal Register, except for 47 CFR 80.233, 80.1061, 95.1402, 95.1043, which contain new information collection requirements that require approval by the OMB under the PRA and which WILL BECOME EFFECTIVE after such approval, on the effective date specified in a document that the Commission publishes in the Federal Register announcing such approval and effective date.

List of Subjects

47 CFR Part 1

Communications equipment, Radio.

47 CFR Parts 25, 80 and 95

Communications equipment, Incorporation by reference, Radio.

FEDERAL COMMUNICATIONS COMMISSION

**Gloria J. Miles,**  
**Federal Register Liaison Officer.**  
Office of the Secretary

Final rules

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR parts 1, 25, 80 and 95, as follows:

**PART 1 – PRACTICE AND PROCEDURE**

1. The authority citation for Part 1 continues to read as follows:

AUTHORITY: 47 U.S.C. 151, 154(i), 155, 157, 225, 303(r), 309, 1403, 1404, 1451, and 1452.

2. Section 1.948 is amended by revising paragraph (b)(5) to read as follows:

**§ 1.948 Assignment of authorization or transfer of control, notification of consummation.**

\* \* \* \* \*

(b) \* \* \*

(5) Licenses, permits, and authorizations for stations in the Amateur, Commercial Operator and Personal Radio Services (except 218–219 MHz Service) may not be assigned or transferred, unless otherwise stated.

\* \* \* \* \*

**PART 25 - SATELLITE COMMUNICATIONS**

3. The authority citation for Part 25 continues to read as follows:

AUTHORITY: Interprets or applies 47 U.S.C. 154, 301, 302, 303, 307, 309, 310, 319, 332, 605, and 721, unless otherwise noted.

4. Subpart E, consisting of § 25.301, is added to read as follows:

**Subpart E-Miscellaneous**

**§ 25.301 Satellite Emergency Notification Devices (SENDs).**

No device described by the marketer or seller using the terms “SEND” or “Satellite Emergency Notification Device” may be marketed or sold in the United States unless it complies with the requirements of RTCM 12800.0. RTCM 12800.0, “Satellite Emergency Notification Devices (SENDs),” dated August 1, 2011 is incorporated by reference in accordance with 5 U.S.C. 552(a), and 1 CFR part 51. Copies of the document are available and may be obtained from the Radio Technical Commission for Maritime Services, 1611 N. Kent Street, Suite 605, Arlington, Virginia 22209. The document is available for inspection at Commission headquarters at 445 12th Street SW., Washington, DC 20554. Copies may also be inspected 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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).*

**PART 80 – STATIONS IN THE MARITIME SERVICES**

5. The authority citation for Part 80 continues to read as follows:

AUTHORITY: Secs. 4, 303, 307(e), 309, and 332, 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303, 307(e), 309, and 332, unless otherwise noted. Interpret or apply 48 Stat. 1064-1068, 1081-1105, as amended; 47 U.S.C. 151-155, 301-609; 3 UST 3450, 3 UST 4726, 12 UST 2377.

6. Section 80.7 is amended by:

a. In paragraph (d)(5), removing “IEC 1097-3:1994” and adding in its place “IEC 61097-3:1994”; in paragraph (d)(8), removing “IEC 1097-7:1996” and adding in its place “IEC 61097-7:1996”; in paragraph (d)(12), removing “IEC 1097-12:1996(E) and adding in its place “IEC 61097-12:1996(E).

b. Removing paragraph (d)(17), redesignating paragraphs (d)(14) through (16) as (d)(15) through (17), and adding and reserving new paragraph (d)(14); and

c. Revising paragraph (f)(3) and adding paragraph (f)(4).

The additions and revisions read as follows:

**§ 80.7 Incorporation by reference.**

\* \* \* \* \*

(f) \* \* \*

(3) RTCM Standard 11020.1 (“RTCM 11020”), “RTCM Standard 11020.1, Ship Security Alert Systems (SSAS) Using the Cospas-Sarsat Satellite System,” October 9, 2009, IBR approved for § 80.277.

(4) RTCM Standard 12301.1 (“RTCM 12301”), “VHF-FM Digital Small Message Services,” July 10, 2009, IBR approved for § 80.364(a).

7. Section 80.7 is amended by:

- a. Adding paragraphs (b)(28);
- b. Redesignating paragraphs (d)(14) through (19) as (d)(15) through (20);
- c. Adding a new paragraph (d)(14);
- d. Revising paragraph (f)(2); and
- e. Removing paragraph (g).

The additions and revisions read as follows:

**§ 80.7 Incorporation by reference.**

\* \* \* \* \*

(b) \* \* \*

(28) IMO Resolution MSC.246(83), (“IMO Resolution MSC.246(83)”) “Adoption of Performance Standards for Survival Craft AIS Search and Rescue Transmitters (AIS-SART) for Use in Search and Rescue Operations,” IBR approved for § 80.233(a).

\* \* \* \* \*

(d) \* \* \*

(14) IEC 61097-14 (“IEC 61097-14”), Edition 1.0, 2010-02, “Global maritime distress and safety system (GMDSS) – Part 14: AIS search and rescue transmitter (AIS-SART) – Operational and performance requirements, methods of testing and required test results,” IBR approved for § 80.233(a).

\* \* \* \* \*

(f) \* \* \*

(2) RTCM Standard 11000.3 (“RTCM 11000”), “406 MHz Satellite Emergency Position Radiobeacons (EPIRBs),” June 12, 2012, IBR approved for § 80.1061(a) and (c).

\* \* \* \* \*

8. Section 80.59 is amended by revising the note in paragraph (a)(1) to read as follows:

**§ 80.59 Compulsory ship inspections.**

(a) \* \* \*

(1) \* \* \*

Note to paragraph (a)(1): Nothing in this section prohibits Commission inspectors from inspecting ships. The mandatory inspection of U.S. vessels

must be conducted by an FCC-licensed technician holding an FCC General Radiotelephone Operator License, GMDSS Radio Maintainer's License, Second Class Radiotelegraph Operator's Certificate, First Class Radiotelegraph Operator's Certificate, or Radiotelegraph Operator License in accordance with the following table:

\* \* \* \* \*

9. Section 80.115 is amended by revising paragraphs (a)(1) through (4) to read as follows:

**§ 80.115 Operational conditions for use of associated ship units.**

(a) \* \* \*

(1) It must only be operated on the safety and calling frequency 156.800 MHz or 156.525 MHz or on commercial or noncommercial VHF intership frequencies appropriate to the class of ship station with which it is associated.

(2) Except for safety purposes, it must only be used to communicate with the ship station with which it is associated or with associated ship units of the same ship station. Such associated ship units may be used from shore only adjacent to the waterway (such as on a dock or beach) where the ship is located. Communications from shore must relate to the operational and business needs of the ship including the transmission of safety information, and must be limited to the minimum practicable transmission time.

(3) It must be equipped to transmit on the frequency 156.800 MHz or 156.525 MHz and at least one appropriate intership frequency.

(4) Calling must occur on the frequency 156.800 MHz or 156.525 MHz unless calling and working on an intership frequency has been prearranged.

\* \* \* \* \*

10. Section 80.157 is revised to read as follows:

**§ 80.157 Radio officer defined.**

A *radio officer* means a person holding a First Class Radiotelegraph Operator's Certificate, Second Class Radiotelegraph Operator's Certificate, or Radiotelegraph Operator License issued by the Commission, who is employed to operate a ship radio station in compliance with Part II of Title III of the Communications Act. Such a person is also required to be licensed as a *radio officer* by the U.S. Coast Guard when employed to operate a ship radiotelegraph station.

11. Section 80.159 is amended by revising paragraph (b) to read as follows:

**§ 80.159 Operator requirements of Title III of the Communications Act and the Safety Convention.**

\* \* \* \* \*

(b) Each cargo ship equipped with a radiotelegraph station in accordance with Part II of Title III of the Communications Act and which has a radiotelegraph auto alarm must carry a radio officer holding a First Class Radiotelegraph Operator's Certificate, Second Class Radiotelegraph Operator's Certificate, or Radiotelegraph Operator License who has had at least six months service as a radio officer on board U.S. ships. If the radiotelegraph station does not have an auto alarm, a second radio officer who holds a First Class Radiotelegraph Operator's Certificate, Second Class Radiotelegraph Operator's Certificate, or Radiotelegraph Operator License must be carried.

\* \* \* \* \*

12. Section 80.203 is amended by adding paragraphs (b)(3)(i) through (iv) to read as follows:

**§ 80.203 Authorization of transmitters for licensing.**

\* \* \* \* \*

(b) \* \* \*

(3) \* \* \*

(i) Internal adjustments of the transmitter;

(ii) Use of controls normally inaccessible to the station operator;

(iii) Use of external devices or equipment modules made available only to service and maintenance personnel through a service company; and

(iv) Copying of a channel selection program directly from another transmitter (cloning) using devices and procedures made available only to service and maintenance personnel through a service company.

\* \* \* \* \*

13. Section 80.231 is amended by revising paragraph (c) introductory text and paragraph (e) to read as follows:

**§ 80.231 Technical requirements for Class B Automatic Identification System**

**equipment.**

\* \* \* \* \*

(c) Prior to submitting a certification application for a Class B AIS device, the following information must be submitted in duplicate to typeapproval@uscg.mil or the Commandant (CG-ENG-4), U.S. Coast Guard Stop 7509, 2703 Martin Luther King Jr. Ave. SE, Washington, DC 20593-7509:

\* \* \* \* \*

(e) A certification application for an AIS device must contain a copy of the U.S. Coast Guard letter stating that the device satisfies all of the requirements specified in IEC 62287-1, a copy of the technical test data, and the instruction manual(s).

14. Section 80.233 is added to subpart E to read as follows:

**§ 80.233 Technical requirements for Automatic Identification System Search and Rescue Transmitters (AIS-SART) equipment.**

(a) Automatic Identification System Search and Rescue Transmitter (AIS-SART) equipment must meet the technical requirements of IEC 61097-14 and IMO Resolution MSC.246(83) (incorporated by reference, *see* § 80.7(b)).

(b) Prior to submitting a certification application for an AIS-SART device, the following information must be submitted in duplicate to the U.S. Coast Guard, 2703 Martin Luther King Jr. Ave. SE, Stop 7126, Washington, DC 20593-7126:

(1) The name of the manufacturer or grantee and the model number of the AIS-SART device; and

(2) Copies of the test report and test data obtained from the test facility showing that the device complies with the environmental and operational requirements identified in IEC 61097-14.

(c) After reviewing the information described in paragraph (b) of this section, the U.S. Coast Guard will issue a letter stating whether the AIS-SART device satisfies all of the requirements specified in IEC 61097-14.

(d) A certification application for an AIS-SART device must contain a copy of the U.S. Coast Guard letter stating that the device satisfies all of the requirements specified in

IEC 61097-14, a copy of the technical test data, and the instruction manual(s).

15. Section 80.273 is amended by removing paragraph (b), redesignating paragraphs (c) and (d) as paragraphs (b) and (c), and revising newly redesignated paragraph (b) to read as follows:

**§ 80.273 Radar standards.**

\* \* \* \* \*

(b) For any ship of 10,000 tons gross tonnage and upwards or that is otherwise required to be equipped with two radar systems, each of the two radar systems must be capable of operating independently and must comply with the specifications, standards and general requirements set forth on paragraph (a) of this section. One of the systems must provide a display with an effective diameter of not less than 320 millimeters (12.6 inches), (16-inch cathode ray tube). The other system must provide a display with an effective diameter of not less than 250 millimeters (9.8 inches), (12-inch cathode ray tube).

\* \* \* \* \*

16. Section 80.277 is amended by revising paragraph (a)(1) to read as follows:

**§ 80.277 Ship Security Alert System (SSAS).**

(a) \* \* \*

(1) Equipment that complies with RTCM 11020 (incorporated by reference, § 80.7); or

\* \* \* \* \*

17. The first undesignated center heading under subpart H is revised to read as follows:

## RADIOTELEGRAPHY AND DATA

18. Section 80.351 is revised to read as follows:

### **§ 80.351 Scope.**

The following sections describe the carrier frequencies and general uses of radiotelegraphy and data transmission with respect to the following:

- (a) Distress, urgency, safety, call and reply.
- (b) Working.
- (c) Digital selective calling (DSC).
- (d) Narrow-band direct-printing (NB-DP).
- (e) Facsimile.
- (f) VHF-FM digital small message services (VDSMS).

19. Section 80.364 is added under the undesignated center heading for Radiotelegraphy and Data to read as follows:

### **§ 80.364 Frequencies for VHF digital small message services (VDSMS).**

Frequencies in the 156-162 MHz band may be used for VHF digital small message services (VDSMS) complying with RTCM 12301 (incorporated by reference, *see* § 80.7), except as follows

#### VHF-FM CHANNELS NOT AVAILABLE FOR DIGITAL SMALL MESSAGE SERVICE

Channel	Frequency (MHz)
01A	156.050
63A	156.175
05A	156.250

65A	156.275
06	156.300
66A	156.325
67	156.375
70	156.525
12	156.600
13	156.650
73	156.675
14	156.700
74	156.725
15	156.750
75	156.775
16	156.800
76	156.825
17	156.850
77	156.875
20A	157.000
22A	157.100
AIS 1/2	161.975/162.025

20. Section 80.1005 is revised to read as follows:

**§ 80.1005 Inspection of station.**

The bridge-to-bridge radiotelephone station will be inspected on vessels subject to

regular inspections pursuant to the requirements of Parts II and III of Title III of the Communications Act, the Safety Convention or the Great Lakes Agreement at the time of the regular inspection. If after such inspection, the Commission determines that the Bridge-to-Bridge Act, the rules of the Commission and the station license are met, an endorsement will be made on the appropriate document. The validity of the endorsement will run concurrently with the period of the regular inspection. Each vessel must carry a certificate with a valid endorsement while subject to the Bridge-to-Bridge Act. All other bridge-to-bridge stations will be inspected from time to time. An inspection of the bridge-to-bridge station on a Great Lakes Agreement vessel must normally be made at the same time as the Great Lakes Agreement inspection is conducted by a technician holding one of the following: a General Radiotelephone Operator License, a GMDSS Radio Maintainer's License, a Radiotelegraph Operator License, a Second Class Radiotelegraph Operator's Certificate, or a First Class Radiotelegraph Operator's Certificate. Additionally, the technician must not be the vessel's owner, operator, master, or an employee of any of them. Ships subject to the Bridge-to-Bridge Act may, in lieu of an endorsed certificate, certify compliance in the station log required by section 80.409(f).

21. Section 80.1053 is revised to read as follows:

**§ 80.1053 Prohibition on certification, manufacture, importation, sale or use of Class A, Class B, Class S, and INMARSAT-E EPIRBs.**

The manufacture, importation, sale or use of Class A, Class B, Class S, or INMARSAT-E EPIRBs is prohibited. New Class A, Class B, Class S, or INMARSAT-E EPIRBs will no longer be certified by the Commission.

22. Section 80.1061 is amended by:

- a. Revising paragraph (a);
- b. Revising paragraph (c) introductory text and (c)(1); and
- c. Revising paragraphs (d) and (e).

The additions and revisions read as follows:

**§ 80.1061 Special requirements for 406.0-406.1 MHz EPIRB stations.**

(a) Notwithstanding the provisions in paragraph (b) of this section, 406.0-406.1 MHz EPIRBs must meet all the technical and performance standards contained in RTCM 11000 (incorporated by reference, *see* § 80.7), and must also comply with the standards specified in § 80.1101(c)(5). Beginning January 17, 2018, all new applications for certification of 406.0-406.1 MHz EPIRBs must demonstrate compliance with the requirements of RTCM 11000. 406.0-406.1 MHz EPIRBs that do not meet the requirements of RTCM 11000 shall not be manufactured, imported, or sold in the United States beginning January 17, 2020. Operation of 406.0-406.1 MHz EPIRBs that do not meet the requirements of RTCM 11000 shall be prohibited on vessels subject to 47 CFR subparts R, S, or W beginning January 17, 2023. Existing 406.0-406.1 MHz EPIRBs that do not meet the requirements of RTCM 11000 must be operated as certified.

\* \* \* \* \*

(c) Prior to submitting a certification application for a 406.0-406.1 MHz radiobeacon, the radiobeacon must be certified by a test facility recognized by one of the COSPAS-SARSAT Partners that the equipment satisfies the design characteristics associated with the measurement methods incorporated in RTCM Standard 11000 (incorporated by reference, *see* § 80.7). Additionally, the radiobeacon must be subjected

to the environmental and operational tests associated with the test procedures described in Appendix A of RTCM Standard 11000, by a test facility accepted by the U.S. Coast Guard for this purpose. Information regarding accepted test facilities may be obtained from Commandant (CG-ENG-4), U.S. Coast Guard Stop 7509, 2703 Martin Luther King Jr. Ave. SE, Washington, DC 20593-7126, <http://cgmix.uscg.mil/EQLabs/EQLabsSearch.aspx>.

(1) After a 406.0-406.1 MHz EPIRB has been certified by the recognized test facilities the following information must be submitted in duplicate to [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil) or the Commandant (CG-ENF-4), U.S. Coast Guard Stop 7509, 2703 Martin Luther King Jr. Ave. SE, Washington, DC 20593-7509:

(i) The name of the manufacturer or grantee and model number of the EPIRB;

(ii) Copies of the certificate and test data obtained from the test facility recognized by a COSPAS/SARSAT Partner showing that the radiobeacon complies with the COSPAS-SARSAT design characteristics associated with the measurement methods incorporated in RTCM 11000;

(iii) Copies of the test report and test data obtained from the test facility recognized by the U.S. Coast Guard showing that the radiobeacon complies with the U.S. Coast Guard environmental and operational characteristics associated with the measurement methods described in Appendix A of the RTCM Recommended Standards; 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.

\* \* \* \* \*

(d) A certification application for a 406.0-406.1 MHz EPIRB must also contain a copy of the U.S. Coast Guard letter that states the radiobeacon satisfies all RTCM Recommended Standards, a copy of the technical test data, and the instruction manual(s).

(e) An identification code, recognized by the National Oceanic and Atmospheric Administration (NOAA), the United States Program Manager for the 406.0-406.1 MHz COSPAS/SARSAT satellite system, must be programmed in each EPIRB unit to establish a unique identification for each EPIRB station. With each marketable EPIRB unit, the manufacturer or grantee must include a postage pre-paid registration card printed with the EPIRB identification code addressed to: NOAA/SARSAT Beacon Registration, NSOF, E/SPO53, 1315 East West Hwy, Silver Spring, MD 20910-9684. The registration card must request the owner's name, address, telephone number, type of ship, alternate emergency contact and other information as required by NOAA. The registration card must also contain information regarding the availability to register the EPIRB at NOAA's online web-based registration database at:<http://www/beaconregistration.noaa.gov>. In addition, the following statement must be included: "WARNING—failure to register this EPIRB with NOAA before installation could result in a monetary forfeiture being issued to the owner."

\* \* \* \* \*

23. Section 80.1085 is amended by revising paragraph (a)(3) to read as follows:

**§ 80.1085 Ship radio equipment—General.**

\* \* \* \* \*

(a) \* \* \*

(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);

\* \* \* \* \*

24. Section 80.1095 is amended by revising paragraph (b) to read as follows:

**§ 80.1095 Survival craft equipment.**

\* \* \* \* \*

(b) At least one radar transponder or AIS-SART (collectively, “search and rescue locating devices”) must be carried on each side of every passenger ship and every cargo ship of 500 tons gross tonnage and upwards. At least one search and rescue locating device must be carried on every cargo ship of 300 tons gross tonnage and upwards but less than 500 tons gross tonnage. Such search and rescue locating devices must conform to performance standards as specified in § 80.233 for AIS-SARTs or § 80.1101 for radar transponders. The search and rescue locating devices 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 search and rescue locating device must be stowed in each survival craft other than those required by Regulation III/26.1.4 of the SOLAS Convention. One of these search and rescue locating devices may be the search and rescue locating device required by § 80.1085(a)(3).

\* \* \* \* \*

## **PART 95 – PERSONAL RADIO SERVICES**

25. The authority citation for part 95 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 301, 302(a), 303, and 307(e).

26. The heading of subpart K is revised to read as follows:

Subpart K — Personal Locator Beacons (PLBs) and Maritime Survivor Locating Devices (MSLDs)

27. Section 95.1400 is revised to read as follows:

### **§ 95.1400 Basis and purpose.**

The rules in this subpart are intended to provide individuals in the water or in remote areas a means to alert others of an emergency situation and to aid search and rescue personnel in locating those in distress.

28. Section 95.1401 is revised to read as follows:

### **§ 95.1401 Frequency.**

The frequency band 406.0-406.1 MHz is an emergency and distress frequency band available for use by Personal Locator Beacons (PLBs). Personal Locator Beacons that transmit on the frequency band 406.0-406.1 MHz must use G1D emission. Use of these frequencies must be limited to transmission of distress and safety of life communications.

29. Section 95.1402 is amended by revising paragraphs (a) through (f) to read as follows:

### **§ 95.1402 Special requirements for 406 MHz PLBs.**

(a) All 406 MHz PLBs must meet all the technical and performance standards contained in RTCM 11010.2. RTMC 11010.2, “406 MHz Satellite Personal Locator

Beacons (PLBs),” including Amendments 1 and 2, dated June 8, 2012 is incorporated by reference in accordance with 5 U.S.C. 552(a), and 1 CFR part 51. Copies of the document are available and may be obtained from the Radio Technical Commission for Maritime Services, 1611 N. Kent Street, Suite 605, Arlington, Virginia 22209. The document is available for inspection at Commission headquarters at 445 12th Street SW., Washington, DC 20554. Copies may also be inspected 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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html)*

(b) Beginning January 17, 2018, all new applications for certification of 406 MHz PLBs must demonstrate compliance with the requirements of RTCM 11010. 406 MHz PLBs that do not meet the requirements of RTCM 11010 shall not be manufactured, imported, or sold in the United States beginning January 17, 2020.

(c) Before a 406 MHz PLB certification application is submitted to the Commission, the applicant must have obtained certification from a test facility recognized by one of the COSPAS/SARSAT Partners that the PLB satisfies the standards incorporated in RTCM 11010. Additionally, an independent test must certify that the PLB complies with the electrical and environmental standards associated with the RTCM Recommended Standards.

(d) The procedures of Notification by the equipment manufacturer and Certification from the designated Telecommunications Certification Body are contained in subpart J of part 2 of this chapter.

(e) An identification code, recognized by the National Oceanic and Atmospheric Administration (NOAA), the United States Program Manager for the 406 MHz COSPAS/SARSAT satellite system, must be programmed in each PLB unit to establish a unique identification for each PLB station. With each marketable PLB unit, the manufacturer or grantee must include a postage pre-paid registration card printed with the PLB identification code addressed to: NOAA/SARSAT Beacon Registration, NSOF, E/SPO53, 1315 East West Hwy, Silver Spring, MD 20910-9684. The registration card must request the owner's name, address, telephone number, alternate emergency contact and include the following statement: “WARNING” failure to register this PLB with NOAA could result in a monetary forfeiture order being issued to the owner.”

(f) To enhance protection of life and property, it is mandatory that each 406 MHz PLB be registered with NOAA and that information be kept up-to-date. In addition to the identification plate or label requirements contained in §§ 2.925 and 2.926 of this chapter, each 406 MHz PLB must be provided on the outside with a clearly discernable permanent plate or label containing the following statement: “The owner of this 406 MHz PLB must register the NOAA identification code contained on this label with the National Oceanographic and Atmospheric Administration (NOAA) whose address is: NOAA/SARSAT Beacon Registration, NSOF, E/SPO53, 1315 East West Hwy, Silver Spring, MD 20910-9684.” Owners shall advise NOAA in writing upon change of PLB ownership, or any other change in registration information. NOAA will provide registrants with proof of registration and change of registration postcards. In the alternative to registration by postcard, users may register 406 MHz PLBs online at [www.beaconregistration.noaa.gov](http://www.beaconregistration.noaa.gov).

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30. Section 95.1403 is added to subpart K to read as follows:

**§ 95.1403 Special requirements for Maritime Survivor Locating Devices.**

(a) Maritime Survivor Locating Devices (MSLDs) are devices intended to aid in the location of persons in the water. Use on land is not authorized.

(b) MSLDs must meet all the technical and performance standards contained in RTCM 11901.1. RTCM 11901.1, “Maritime Survivor Locating Devices (MSLD),” dated June 4, 2012 is incorporated by reference in accordance with 5 U.S.C. 552(a), and 1 CFR part 51. Copies of the document are available and may be obtained from the Radio Technical Commission for Maritime Services, 1611 N. Kent Street, Suite 605, Arlington, Virginia 22209. The document is available for inspection at Commission headquarters at 445 12th Street SW., Washington, DC 20554. Copies may also be inspected 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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html)*

(c) No device may be marketed or sold in the United States as a “MSLD” or “Maritime Survivor Locating Device” unless it complies with the requirements of RTCM 11901. Previously approved devices intended to aid in the location of persons in the water that do not meet the requirements of this section shall not be manufactured, imported, or sold in the United States January 17, 2018.

(d) All MSLDs must:

(1) Transmit on at least one of the following frequencies: 121.5 MHz, 156.525

MHz, 156.750 MHz, 156.800 MHz, 156.850 MHz, 161.975 MHz, 162.025 MHz; or

(2) Include a function intended to send a distress message directly to the U.S. Coast Guard or any other search and rescue organization.

(e) Before an MSLD certification application is submitted, the applicant must obtain a test report from a test laboratory which shows that the MSLD complies with the electrical and environmental standards associated with RTCM 11901. The test laboratory must be accredited to ISO/IEC 17025 with a scope covering the applicable requirements and test procedures.

(1) After the MSLD has been certified by a test laboratory, the following information must be submitted in duplicate to the U.S. Coast Guard, 2703 Martin Luther King Jr. Ave. SE, Stop 7126, Washington, DC 20593-7126:

(i) The name of the manufacturer or grantee and model number of the MSLD;

(ii) Copies of the test report and test data showing that the MSLD complies with the electrical and environmental standards associated with RTCM 11901; and

(iii) Instruction manuals associated with the MSLD, description of the test characteristics of the MSLD 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 (e)(1) of this section, the U.S. Coast Guard will issue a letter stating whether the MSLD satisfies all RTCM Recommended Standards. In the case of an MSLD that includes a function intended to send a distress message directly to the U.S. Coast Guard or any other search and rescue organization, the letter will also state whether the U.S. Coast Guard endorses that

function.

(f) A certification application for an MSLD must contain a copy of the U.S. Coast Guard letter stating that the device satisfies all RTCM Recommended Standards, a copy of the technical test data, and the instruction manual(s).

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