Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Parts 13 and 80 of the Commission's Rules Concerning Maritime Communications	)	WT Docket No. 00-48
	)	
Petition for Rule Making Filed by Globe Wireless, Inc.	)	RM-9499
	)	
Amendment of the Commission's Rules Concerning Maritime Communications	)	PR Docket No. 92-257

SECOND REPORT AND ORDER, SIXTH REPORT AND ORDER, AND SECOND FURTHER NOTICE OF PROPOSED RULE MAKING

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I. INTRODUCTION AND EXECUTIVE SUMMARY

1. In this *Second Report and Order, Sixth Report and Order, and Second Further Notice of Proposed Rule Making,* we address the issues raised in both the *Further Notice of Proposed Rule Making* in WT Docket No. 00-48[1] and the *Fourth Further Notice of Proposed Rule Making* in PR Docket No. 92-

[1] Amendment of Parts 13 and 80 of the Commission's Rules Concerning Maritime Communications, *Report and Order and Further Notice of Proposed Rule Making*, WT Docket No. 00-48, 17 FCC Rcd 6741 (2002) (*GMDSS R&O*, and *GMDSS FNPRM* or *FNPRM*).

257.[2] The rule amendments adopted herein represent an important further step in the Commission's ongoing efforts to update and streamline Part 80 of its rules,[3] governing the Maritime Radio Services. The paramount goals of this consolidated proceeding[4] are to enhance maritime safety, promote the efficient use of the maritime radio spectrum, and, to the extent it is consistent with these first two objectives, remove unnecessary regulatory burdens on the users and manufacturers of maritime radio equipment. We also conform Part 80 of the Commission's rules with international standards where doing so will not undermine domestic regulatory objectives.

2. In the *Second Report and Order* in WT Docket No. 00-48, we

- decline to create a voluntary restricted Global Maritime Distress and Safety System (GMDSS) license for recreational boaters;
- clarify the responsibilities of VHF public coast stations that receive calls on the digital selective calling (DSC) distress frequency, Channel 70;
- clarify that VHF public coast stations that are not exempt from the VHF Channel 16 watch requirement must have a radio operator on duty;
- prohibit ship operation of any device capable of transmitting on a distress frequency without regulatory authorization;
- redesignate Channels 75 and 76 for communications related to port operations, and establish requirements for equipment to operate on the channels with reduced carrier power;
- authorize domestic use of INMARSAT-E emergency position indicating radiobeacons (EPIRBs) and establish standards for such devices;
- require that small passenger vessels have digital selective calling capability one year after the U.S. Coast Guard (Coast Guard or USCG) declares Sea Areas A1 and A2 to be operational, and establish additional equipment requirements for such vessels;
- decline to specify that the qualified GMDSS operator required to be on vessels under our rules must be assigned exclusively to radio communications duties during an emergency;
- update the requirements for ship radio installations to incorporate new international regulations;
- incorporate into the rules the international requirement that all passenger ships have the ability to communicate with search and rescue personnel on two specified aeronautical frequencies;
- determine to continue listing the carrier frequency, rather than the assigned frequency, in Part 80 Tables of Frequencies; and

[2] Amendment of the Commission's Rules Concerning Maritime Communications, *Fourth Further Notice of Proposed Rule Making*, PR Docket No. 92-257, 17 FCC Rcd 227 (2001) (*VPC 4th FNPRM* or *4th FNPRM*).

[3] 47 C.F.R. §§ 80.1 *et seq.*

[4] We hereby consolidate WT Docket No. 00-48 and PR Docket No. 92-257 for the limited purpose of addressing together in this item the issues raised in the *GMDSS FNPRM* and the *VPC 4th FNPRM*. We will address separately petitions for reconsideration of the *GMDSS R&O*.

- specify the number of questions to include in the GMDSS radio operator license examinations.

3. In the *Sixth Report and Order* in PR Docket No. 92-257, we

- clarify the responsibilities of VHF coast stations as to when they must maintain a watch on the Channel 16 distress frequency and as to their obligation to notify the Coast Guard of a station relocation;
- generally decline to impose additional technical requirements for VHF public coast stations operating on offset channels;
- deny a request to reallocate nine channel pairs from public safety and other private land mobile radio operations to use by VHF public coast stations;
- adopt new rules requested by the Coast Guard to govern the implementation of Automatic Identification Systems;
- establish a new emission mask in Part 80 to accommodate a wide range of data services;
- eliminate the station identification requirement for VHF public coast stations licensed on a geographic area basis;
- authorize VHF public coast stations to maintain required station records in electronic form;
- relax the posting requirement for VHF public coast stations; and
- clarify that VHF public coast stations, like other providers of commercial mobile radio services (CMRS), have been relieved of certain filing requirements as a matter of forbearance.

4. There remain a few issues for which we seek further comment in a *Second Further Notice of Proposed Rule Making* in WT Docket No. 00-48 (*GMDSS 2nd FNPRM*).[5] In the *GMDSS 2nd FNPRM*, we first invite comment on whether to revise the requirements for DSC equipment to comport with international standards that were adopted after we last requested comment on this issue. Second, we ask interested parties to consider whether the INMARSAT F-77 ship earth station should be added to the list of ship earth stations that are authorized to be used in lieu of a single sideband radio by vessels traveling more than 100 nautical miles from shore. We also request comment on a recommendation by the National Transportation Safety Board (NTSB) to require all small passenger vessels to have a reserve power source. Next, we ask interested parties to consider possible changes to the rules governing commercial radio operator licenses. Specifically, we ask whether we should make certain commercial radio operator licenses and permits valid for the lifetime of the holder, obviating the need for such licensees to file periodic renewal applications. We also ask for comment on whether we should introduce greater flexibility into the examination process by removing rule provisions that codify the number of questions for each examination element and that require the exclusive use of new question pools immediately upon their public availability. In addition, we solicit comment on technical standards for equipment to be used in the Ship Security Alert System. We also invite recommendations for further updating of Part 80 of the Commission's rules in response to recent changes in international standards, and specifically request comment on whether we should authorize certain on-board frequencies for

[5] *See* paras. 79-88, *infra*.

narrowband use domestically. Finally, interested parties are asked to address several proposals to revise or eliminate part 80 rules that were made by Globe Wireless in *ex parte* comments submitted in the 2002 Biennial Review proceeding.

II. BACKGROUND

A. GMDSS – WT Docket No. 00-48

5. In 1974, the International Maritime Organization (IMO)[6] adopted the International Convention for the Safety of Life at Sea (SOLAS Convention).[7] The primary objective of the SOLAS Convention is to specify minimum standards for the construction, equipment, and operation of ships, compatible with their safety. In 1988, the IMO amended SOLAS to provide for the worldwide implementation of the GMDSS, a ship-to-shore distress communications system with ship-to-ship capabilities.[8] GMDSS utilizes automated (or semi-automated) communications via satellite, and advanced terrestrial systems using digital selective calling (DSC). Ships that are subject to the requirements of SOLAS, known as "compulsory ships,"[9] must carry certain GMDSS radio equipment for safety purposes. In contrast, SOLAS does not require "voluntary ships" to carry GMDSS equipment.[10] The SOLAS amendments provided for the gradual worldwide implementation of GMDSS from February 1, 1992 until February 1, 1999.

6. On January 16, 1992, the Commission adopted rules to implement GMDSS in the United States, requiring the installation of GMDSS equipment by February 1, 1999.[11] Additionally, the Commission incorporated into its rules international equipment standards promulgated by the IMO, the International Telecommunication Union (ITU), the International Electro-technical Commission (IEC), and the International Standards Organization (ISO). Since 1992, however, many of these international standards have been revised to clarify, improve, and update the GMDSS requirements. In light of these revisions, on March 17, 2000, the Commission issued a *Notice of Proposed Rule Making* in WT Docket No. 00-48, in which it proposed to revise Part 80 of its rules to reflect changes in international standards and regulations; delete or modify rules affected by full implementation of GMDSS; and delete or modify any other regulations deemed unnecessary or in need of clarification.[12] The Commission also invited commenters to propose other changes to Part 80.[13]

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[6] The IMO is an agency of the United Nations that specifies regulations for the maritime service, such as equipment carriage requirements for certain classes of ships.

[7] Earlier versions of the SOLAS Convention were adopted in 1914, 1929, 1948, and 1960.

[8] Consolidated Text of the International Convention for the Safety of Life at Sea, 1974, and its Protocol of 1977: Articles, Annexes and Certificates, Incorporating All Amendments in Effect from 1 July 1997, International Maritime Organization, London, 1997.

[9] Compulsory ships include all passenger ships that carry more than twelve passengers and all cargo ships of 300 gross tons and over conducting international voyages.

[10] *See* 47 C.F.R. § 80.5, *Categories of ships* (defining a voluntary ship as "[a]ny ship which is not required by treaty or statute to be equipped with radiotelecommunication equipment").

[11] Amendment of Parts 13 and 80 of the Commission's Rules to Implement the Global Maritime Distress and Safety System (GMDSS) to Improve the Safety of Life at Sea, *Report and Order*, PR Docket No. 90-480, 7 FCC Rcd 951 (1992).

[12] Amendment of Parts 13 and 80 of the Commission's Rules Concerning Maritime Communications, *Notice of Proposed Rule Making and Memorandum Opinion and Order*, WT Docket No. 00-48, 15 FCC Rcd 5942 (2000) (*GMDSS NPRM*).

[13] *Id.* at 5944, ¶ 2, 5951 ¶ 17.

7. In the *GMDSS R&O*, the Commission addressed the issues raised in the *GMDSS NPRM*, adopting or revising a number of rules to govern the further implementation of GMDSS requirements domestically.[14] At the same time, in the *GMDSS FNPRM*, the Commission solicited comment on additional issues. Specifically, the Commission asked whether it should establish a voluntary restricted GMDSS license or take other measures to address the needs of recreational vessel operators; clarify or change the safety watch obligations of public coast stations; permit unattended operation of non-DSC equipment; prohibit ship stations from including any device capable of transmitting on a distress frequency without regulatory authorization; delete any existing emission classes; permit the use of Channels 75 and 76 for navigation-related port operations, subject to specified power limits, and also limit transmitters operating on such channels to the specified power limits, with no manual override capability; codify in the rules the Radio Technical Commission for Maritime Services (RTCM) Recommended Practices for DSC equipment; revise the Part 80 radiotelephone and radiotelegraph distress call and message transmission procedures to incorporate DSC and GMDSS procedures; authorize the use of INMARSAT-E EPIRBs by U.S. vessels operating solely within the INMARSAT coverage footprint; require that small passenger vessels be outfitted with DSC equipment; mandate, on passenger ships, the assignment of at least one qualified person to perform only radio communications duties during distress situations; and incorporate additional SOLAS requirements for equipment in Subpart W.[15] The Commission also requested comment on issues pertaining to e-mail requests, Part 80 tables of frequencies, GMDSS radio operator examination requirements, and Part 80 cross-references to Part 2 of the Commission's rules.[16] We resolve these issues in the *Second Report and Order* in WT Docket 00-48 herein.

B. VHF Public Coast Stations – PR Docket No. 92-257

8. Very high frequency (VHF) public coast (VPC) stations are CMRS providers that serve port or coastal areas, permitting ships at sea to send and receive messages and to interconnect with the public switched telephone network (PSTN).[17] In addition to providing public correspondence service, however, VPC stations are part of an international safety system intended to provide assistance to vessels in distress.[18] Vessel operators use marine VHF Channel 16 (156.8 MHz) in the same manner that landline telephone subscribers dial "911" in an emergency.[19] VPC stations, as well as other nearby vessels, respond to vessel operators' distress messages and relay the messages to local search and rescue authorities.[20] The Coast Guard is responsible for such search and rescue operations at sea and on inland waterways in the United States.[21]

9. In July 1998, the Commission released a *Third Report and Order and Memorandum Opinion and Order* in PR Docket No. 92-257, in which it, *inter alia*, adopted a geographic area licensing approach

[14] *See GMDSS R&O*, 17 FCC Rcd at 6744, ¶ 2, for an overview of the actions taken therein.

[15] *GMDSS FNPRM*, 17 FCC Rcd at 6781, ¶ 108.

[16] *Id.*

[17] *See* Implementation of Sections 3(n) and 332 of the Communications Act – Regulatory Treatment of Mobile Services, *Second Report and Order*, GN Docket No. 93-252, 9 FCC Rcd 1411, 1448, ¶ 83 (1994), *recon. dismissed in part and denied in part*, 15 FCC Rcd 5231 (2000); *see also* 47 C.F.R. § 20.9(a)(5).

[18] *VPC 4th FNPRM*, 17 FCC Rcd at 230, ¶ 5.

[19] *Id.*

[20] *Id.*

[21] *Id.*

for VPC stations,[22] clarified the safety watch requirements of VPC licensees,[23] and authorized VPC licensees to operate on 12.5 kHz offset frequencies where they are authorized to operate on both 25 kHz frequencies adjacent to the offset frequency.[24] In December 2001, in response to recommendations from both the USCG and Maritel, Inc. (Maritel)[25] received in response to the *GMDSS FNPRM*, the Commission released the *VPC 4th FNPRM*.

10. In the *VPC 4th FNPRM*, the Commission sought comment on its tentative conclusions not to include the 12.5 kHz offset channels in the Part 80 table of frequencies, and not to propose occupied bandwidth, emission mask, and related regulations that would govern the operation of VPC stations that employ 12.5 kHz narrowband channels; and to reject Maritel's recommendation to require that geographic area VPC licensees retain a watch only after expiration of the licensee's construction period or construction of the licensee's facilities, and the licensee receives written notification from the USCG to maintain a watch.[26] The Commission also sought comment on whether Part 90 public safety entities would be adversely affected by the reallocation of nine VHF channels pairs to VPC licensing, as proposed by Maritel; and whether to eliminate the station identification requirement for geographic area VPC licensees. Finally, the Commission sought comment on its proposals to allow the USCG and VPC licensees flexibility to choose non-offset, as well as offset, channel pairs when negotiating an agreement regarding designation of two narrowband channel pairs to be used by the USCG for its Ports and Waterways Safety System (PAWSS);[27] to expand the types of emission masks and designators permissible under Part 80 of its rules in order to allow VPC licensees to provide a full range of data services; and to allow public coast stations to maintain station documents via electronic means, and to limit the posting requirement for VPC geographic area licensees to a document identifying the licensee and a representative that may be contacted to answer any questions regarding the operation of a particular station transmitter.[28] We resolve these issues in the *Sixth Report and Order* in PR Docket 92-257 herein.

III. GMDSS SECOND REPORT AND ORDER

A. Voluntary Restricted GMDSS License

11. *Background.* In the *FNPRM*, the Commission observed that both the National GMDSS

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[22] Amendment of the Commission's Rules Concerning Maritime Communications, *Third Report and Order and Memorandum Opinion and Order*, PR Docket No. 92-257, 13 FCC Rcd 19853, 19859-60 ¶¶ 10-11 (1998) (*VPC Third R&O*). The Commission also determined that it would use competitive bidding procedures to resolve mutually exclusive applications for VPC geographic area licenses. *Id.* at 19882-83, ¶ 61.

[23] *Id.* at 19880-81, ¶¶ 57-58. Specifically, the Commission determined that, subject to certain provisos, it would exempt VPC stations from the Channel 16 watch requirement where federal, state, or local governments maintain a continuous watch over ninety-five percent of the station's service area. *Id.* This exemption is codified at 47 C.F.R. § 80.303(b).

[24] *Id.* at 19875, ¶ 46.

[25] Maritel is the largest provider of VPC services in the United States, with stations throughout most of the coastal United States and U.S. inland waterways interconnected to Maritel's control switching office in Biloxi, Mississippi. Maritel Comments (WT 00-48) at 1. It is the licensee of, *inter alia*, VHF Public Coast Service Areas 1-9 as well as inland VPC licenses. *Id.*; *see also* FCC Announces the Conditional Grant of 26 VHF Public Coast Service Licenses, *Public Notice*, DA 99-195, at 1 (rel. May 21, 1999); VHF Public Coast and Location and Monitoring Service Spectrum Auction Closes: Winning Bidders Announced, *Public Notice*, 16 FCC Rcd 12509 (2001).

[26] *VPC 4th FNPRM*, 17 FCC Rcd at 228, ¶ 1.

[27] PAWSS will provide Vessel Traffic Services to facilitate the safe and efficient transit of vessel traffic. *See VPC Third R&O*, 13 FCC Rcd at 19875, ¶ 46.

[28] *VPC 4th FNPRM*, 17 FCC Rcd at 228, ¶ 1.

Implementation Task Force (Task Force)[29] and Recreational Boating Association of Washington (RBAW) were recommending that the Commission establish a voluntary restricted GMDSS radio operator's license to satisfy a need for voluntary training by recreational vessel operators who will soon begin using VHF-DSC, but who are not now required to hold any license or receive any training.[30] The commenters were concerned that, absent a licensing framework, these anticipated new users of DSC equipment would pose a serious false alarm threat to the safety system.[31] However, the Commission tentatively determined that it should not create a new license for recreational vessel operators who voluntarily complete training in VHF-DSC because of the enormous burden on Commission resources that such a licensing framework would entail and because of the lack of any precedent for such a "voluntary" license.[32] The Commission nonetheless invited further comment on this issue, based in part on a recognition that there may be some need for recreational vessel operators chartering recreational vessels in other countries to demonstrate competency in the use of DSC equipment.[33]

12. *Discussion.* We share the concerns of commenters regarding the potential problem of widespread false alerts that could stem from the growing use of DSC equipment by recreational boaters, [34] and we attach great weight in particular to the USCG's espousal of a licensing scheme to address this potential problem[35] because the USCG has primary responsibility for maritime search and rescue operations. However, we continue to believe that it would be premature at this time to adopt any new licensing framework or other regulatory requirement to address this matter. As RBAW notes, we cannot predict the scope of the false alert concern.[36] Further, as the Commission indicated in the *FNPRM*,[37] a licensing framework of this sort would represent a significant departure from our licensing precedent inasmuch as we do not require recreational vessel operators to carry DSC equipment, but they would be subject to licensing if they voluntarily chose to do so.[38] We note, moreover, that while the USCG believes a licensing framework is essential to address the expected increase in false alerts, the other commenters, including the Task Force and RBAW, now appear to believe other measures may suffice just as well.[39] We are therefore reluctant to adopt a licensing framework that would be administratively

[29] *See* Appendix A, *infra*, for a list of the commenters and the abbreviations by which they are referred. The deadline for comments in WT Docket No. 00-48 was August 15, 2002. *See* 67 FR 35086 (May 17, 2002). The Comments of the Task Force and Dr. Schenk of America LLC were filed late, on September 3, 2002, and August 22, 2002, respectively, and the Task Force filed a Motion to Accept Late Filing. We accept the late-filed comments of the Task Force and Dr. Schenk of America LLC in the interest of developing as complete a record as possible in this proceeding.

[30] *GMDSS FNPRM*, 17 FCC Rcd at 6781, ¶ 109.

[31] *Id.*

[32] *Id.* at 6781, ¶ 110.

[33] *Id.*

[34] *See, e.g.*, USCG Comments (WT 00-48) at 3; Kurt Anderson Comments at 8; Owen Anderson Comments at 6; Neuman Comments at 2.

[35] USCG Comments (WT 00-48) at 3 ("The only known mechanism [to address this concern] is a licensing scheme that would have as a component completion of an appropriate short training course.").

[36] RBAW Comments at 1.

[37] *GMDSS FNPRM*, 17 FCC Rcd at 6781, ¶ 110.

[38] The risks of providing for such "voluntary licensing" include creating a new paperwork burden for the recreational boating community, the possibility of creating a disincentive for recreational boaters to upgrade to DSC, and engendering confusion with the Restricted GMDSS Radio Operator's License that is mandatory on compulsory ships.

[39] *See* Task Force Comments at 5; RBAW Comments at 1; RBAW Reply Comments at 1. *See also* Owen Anderson Comments at 6.

burdensome for the Commission, and that could also be viewed as burdensome by the recreational boating community, to address what is still largely a theoretical problem, especially since it is uncertain that a licensing framework would prove significantly better than alternative means of encouraging recreational boaters to be trained in DSC operation. Further, while the Commission, in the *GMDSS FNPRM*, specifically contemplated the need for a voluntary restricted GMDSS radio operator's license by persons chartering recreational vessels in other countries,[40] no commenter suggested that we establish a license on the basis of the particular needs of such persons. We thus agree with the majority of commenters that we should not establish a voluntary restricted GMDSS radio operator's license for recreational boaters that install DSC equipment.

13. Most commenters also stated that training of recreational boaters in the use of DSC equipment should, at a minimum, be encouraged, and that the Commission should consider making such training and/or the completion of a test mandatory, with compliance therewith evidenced by a certificate of completion.[41] The Task Force notes that the United Kingdom and several other countries use a mandatory training requirement of this sort.[42] In the United States, providing such training and testing would most logically fall to the U.S. Coast Guard Auxiliary, U.S. Power Squadrons (USPS),[43] state regulators and/or private sector entities.[44] We decline to impose a mandatory training/certification requirement at this time for a number of reasons. First, as noted earlier, it is difficult to predict the scope of the false alert concern. Second, although the USCG indicates that there are some VHF-DSC training courses in place, the record is devoid of any information on the availability of such training courses. We are unwilling to mandate training without certainty that it will be reasonably available to all recreational boaters that wish to use VHF-DSC. Third, there remain a number of unanswered questions regarding implementation and enforcement of a training requirement. For example, what amount and type of training is sufficient?[45] Is it necessary for the person seeking certification simply to take a course, or should the person also be required to pass an examination? Should such a requirement apply to recreational boaters who already own and use VHF-DSC radios? Will the USCG be responsible for enforcement of the certification requirement? If so, what sanctions can the USCG impose for the violation of what is an FCC requirement? On this record, then, we believe imposition of a mandatory certification requirement for recreational boaters using VHF-DSC is premature. We emphasize, however, that we recognize the potential seriousness of the false alert concern identified by the commenters, and that we intend to monitor the situation carefully so that we may take appropriate action, if necessary,

[40] *GMDSS FNPRM*, 17 FCC Rcd at 6781, ¶ 110.

[41] *See, e.g.*, USCG Comments (WT 00-48) at 3; Task Force Comments at 5; RBAW Comments at 1; RBAW Reply Comments at 1; Owen Anderson Comments at 6.

[42] The Task Force observes that, in the United Kingdom, the course in DSC use is offered by the Royal Yachting Association, which also issues a Certificate of Completion. Task Force Comments at 5.

[43] USPS is a non-profit, educational organization dedicated to making boating safer and more enjoyable by teaching classes in seamanship, navigation and related subjects. *See* http://www.usps.org/newpublic1/guesthome.htm.

[44] *See* USCG Comments (WT 00-48) at 3 (noting that the Coast Guard Auxiliary and USPS currently offer such courses); Task Force Comments at 5 (noting that the Task Force has encouraged the Coast Guard Auxiliary and the USPS to offer a voluntary one-day course in VHF-DSC and has encouraged development of an interactive online course); RBAW Comments at 1 (recommending that the only action the Commission should take now is to delegate authority to the Wireless Telecommunications Bureau, Public Safety and Private Wireless Division, to enter into memoranda of agreement with the Coast Guard Auxiliary, USPS, and other organizations to issue Certificates of Completion of examinations covering VHF and VHF-DSC procedures); Owen Anderson Comments at 6 (suggesting that certification could be given by any person or organization approved by the USCG and/or the Commission); RBAW Reply Comments at 1 (VHF-DSC training of recreational boaters should be "administered by representatives of those that will be affected by the process and results").

[45] RBAW states that the choice of classroom training or self-study should be left to the discretion of the person seeking certification. RBAW Reply Comments at 1.

before any such problem gets out of hand. For now, we will endeavor to coordinate with and assist the USCG in educating the recreational boating community about this issue, encouraging voluntary training in VHF-DSC, and developing appropriate standards for training and certification. We reserve discretion to revisit the possibility of imposing a mandatory certification requirement for recreational boaters using VHF-DSC, upon request of the USCG or another interested party, if future circumstances suggest a need for such requirement.[46] We emphasize, moreover, that it is not the Commission's intent to preempt any state requirements for training or certification of recreational boaters in VHF-DSC.

B. Coast Station Watches

14. *Background.* Section 80.103(c) of the Commission's rules specifies that acknowledgment of DSC distress and safety calls must be made by "designated coast stations" in accordance with procedures contained in ITU-R Recommendation 541.[47] In its comments to the *GMDSS NPRM*, Maritel stated that this rule presumes the establishment of Sea Area A1,[48] and observed that no coast station will have this ability until the establishment of that Sea Area.[49] Maritel further asserted that the definition of the term "designated coast station," as used in section 80.103(c), is unclear, and asked that the Commission clarify that the term is intended to refer to the USCG or its designee following the establishment of Sea Area A1.[50] In response to Maritel's comments, the USCG stated that it supports a mandate that any coast station operating on Channel 70, the DSC distress channel, have the ability and obligation to answer a distress call on that channel if a USCG station does not or cannot answer such a call within the required time.[51] The USCG further stated that the obligation of a VPC station answering such a call would be similar to existing VPC obligations regarding the receipt of a distress and safety call over voice channels.[52] In the *GMDSS FNPRM*, the Commission asked the parties to further explain their positions on this issue, and sought comment on the Commission's authority to require public coast stations to conduct continuous safety watches, the economic impact of such a requirement on public coast stations, and the manner in which coast stations could relay distress communications to the USCG.[53]

15. *Discussion.* We clarify that the term "designated coast stations" in section 80.103(c) is not intended to encompass all VPC stations. Accordingly, VPC stations are not under an obligation to maintain a Channel 70 watch or to routinely acknowledge Channel 70 distress calls. To read section 80.103(c) otherwise would be patently inconsistent with section 80.1119 of the Commission's rules, which states, *inter alia*, that coast stations that receive a GMDSS distress alert should wait three minutes for an acknowledgement to be made by a Rescue Coordination Center and, if no such acknowledgement occurs within the three-minute period, must ensure that the distress alert is routed to a Rescue

[46] Neuman suggests that one means of addressing the expected increase in false alerts stemming from use of VHF-DSC by recreational boaters would be to establish a voice channel for use between recreational boaters and commercial ships. Neuman Comments at 2. This proposal is beyond the scope of the *FNPRM*.

[47] 47 C.F.R. § 80.103(c).

[48] Sea Area A1 is an area within radiotelephone coverage of at least one VHF coast station in which continuous DSC alerting is available as defined by the IMO. Sea Area A2 is an area, excluding Sea Area A1, within radiotelephone coverage of at least one medium frequency (MF) coast station in which continuous DSC alerting is available as defined by the IMO. Sea Area A3 is an area, excluding Sea Areas A1 and A2, within the coverage of an INMARSAT geostationary satellite in which continuous alerting is available. Sea Area A4 is an area outside Sea Areas A1, A2, and A3. *See* 47 C.F.R. § 80.1069(a).

[49] *See GMDSS FNPRM,* 17 FCC Rcd at 6782, ¶ 111.

[50] *Id.*

[51] *Id.* at 6782, ¶ 112.

[52] *Id.*

[53] *Id.* at 6782, ¶ 113.

Coordination Center as soon as possible, and must provide assistance for distress communications when requested to do so by the USCG.[54] In addition, the Commission has specifically rejected the idea of proposing GMDSS watch requirements for VPC stations.[55] We read the USCG's comments in response to the *GMDSS FNPRM* to be in accord with this position.[56] We agree with the USCG that a mandatory Channel 70 watch requirement for VPC stations is not warranted. We believe that a Channel 70 watch requirement should not be deemed simply an extension to newer technology of VPC licensees' existing requirement to maintain a watch on VHF Channel 16.[57]

16. While we view the responsibility to monitor Channel 70, and to acknowledge and respond to Channel 70 distress calls, as ultimately that of the USCG, we understand that the USCG does not yet have the facilities in place to fully implement such monitoring.[58] We also observe that VPC stations currently receive DSC messages, even in the absence of a watch requirement. We remind VPC licensees of the need to fully comply with the procedures set forth in section 80.1119 when they receive a DSC distress call. As Maritel acknowledges, "public coast stations have a unique role in the marine communications network ... [and an] obligation to provide assistance to the Coast Guard when that assistance is required in certain circumstances."[59] With the benefit of this clarification, we encourage Maritel and other VPC licensees to engage in a dialogue with the USCG to determine how they can most expeditiously and effectively transfer DSC distress calls to the USCG,[60] and otherwise provide appropriate assistance to the USCG when requested to do so.

C. Unattended Operation of Non-DSC Equipment

17. *Background.* Section 80.179 of the Commission's rules permits unattended operation of DSC transmitters at VPC stations.[61] Maritel, which operates both DSC and non-DSC equipment, requested that we extend section 80.179 to non-DSC equipment by allowing the unattended operation of such

[54] *See* 47 C.F.R. § 80.1119(a). The rule adds parenthetically that, "This subpart [referring to Part 80, Subpart W, which contains the Commission's GMDSS rules] does not specify any radio watches for coast stations." *Id.*

[55] *See* Amendment of Parts 13 and 80 of the Commission's Rules to Implement the Global Maritime and Distress Safety System (GMDSS) to Improve the Safety of Life at Sea, *Notice of Proposed Rule Making*, PR Docket No. 90-480, 5 FCC Rcd 6212, 6216, ¶ 34 (1990) ("Also, we propose no additional GMDSS watches be required for public coast stations. As the GMDSS is defined, only certain coast stations (and coast earth stations) are designated to maintain the DSC frequency watches.").

[56] USCG Comments (WT 00-48) at 3 ("USCG does not seek to impose any additional watch requirement on coast stations but rather to require coast stations during their hours of operation to provide such assistance as the Coast Guard may require to properly receive, acknowledge, and process a DSC distress alert.").

[57] A Channel 70 watch requirement for VPCs cannot be deemed merely an extension of the Channel 16 watch requirement. First, different equipment is required. Second, a second, cumulative watch requirement adds to the licensee's compliance burden irrespective of the equipment needed to maintain the watch. Third, coast stations are exempt from the Channel 16 watch requirement in areas where federal, state, or local governments maintain a continuous watch over ninety-five percent of the station's service area. *See* note 23, *supra*. Finally, treating a Channel 70 watch requirement for VPCs as an extension of the Channel 16 watch requirement is inconsistent with the Commission's clearly expressed determination not to impose GMDSS watch requirements on VPCs. *See* note 55, *supra*.

[58] *See, e.g.*, http://www.uscg.mil/hq/g-a/ndrsmp/Implementation.htm.

[59] Maritel Comments (WT 00-48) at 7.

[60] Maritel indicates that its current practice is to transfer DSC distress calls to the USCG by facsimile transmission. See Maritel Comments (WT 00-48) at 5. The record does not indicate that this practice is unsatisfactory to the USCG, and we have no occasion here to assess whether it is sufficient under section 80.1119 of the Commission's rules.

[61] 47 C.F.R. § 80.179.

equipment so long as the licensee has the ability to remotely terminate operations of the transmitter.[62] The Commission stated in the *FNPRM* that it was not persuaded by Maritel's proposal, and expressed concern that allowing unattended operation of non-DSC equipment might encourage potential abuse and overloading of VHF distress channel 16.[63] The Commission also expressed concern about "the implications of acknowledging distress calls without any manual intervention."[64] The Commission sought comment on its tentative determination to reject Maritel's proposal to permit unattended operation of non-DSC equipment.[65]

18. *Discussion*. On further review, we conclude that our rules already permit VPC stations to engage in unattended operation of non-DSC equipment, provided that they are exempt from the Channel 16 watch requirement pursuant to section 80.303 of the Commission's rules.[66] To that extent, we agree with Maritel's proposal to permit unattended operation. However, VPC stations that are still subject to a Channel 16 watch requirement must have a licensed radio operator on duty, pursuant to section 80.153.[67]

19. We disagree with Maritel insofar as it contends that the Commission has already eliminated the requirement that even public coast stations subject to a Channel 16 watch have an operator on duty, and has instead afforded public coast station licensees discretion to determine whether or not to have an operator on duty, in accord with international regulations.[68] Maritel cites the Commission's 1997 *Second Report and Order* in PR Docket No. 92-257 for the proposition that the Commission has already eliminated the operator requirement for coast stations.[69] However, the cited decision was limited to allowing VPC stations to automatically interconnect marine radios with the public switched telephone network, and was intended to allow VPC licensees to decide for themselves whether to provide operator assistance for such calls.[70] Similarly, the *VPC Third R&O*, also cited by Maritel,[71] did not authorize VPC stations to engage in unattended operation beyond automated interconnection of public correspondence traffic to the PSTN. The Commission there responded to one commenter's argument to eliminate the Channel 16 watch requirement for VPC stations in order to put them on an equal footing with other CMRS providers by pointing out that the commenter "fail[ed] to take account that *other services are intended to be fully automated*, and that they emerged in a different context from the Maritime Services,

[62] *See GMDSS FNPRM*, 17 FCC Rcd at 6782, ¶ 114.

[63] *Id.*

[64] *Id.*

[65] *Id.*

[66] 47 C.F.R. § 80.303.

[67] *Id.* § 80.153.

[68] Maritel Reply Comments (WT 00-48) at 6-8. It is unclear from its comments whether Maritel is indeed arguing that VPC stations subject to a Channel 16 watch requirement have been given discretion to dispense with a live operator to the same extent as stations exempt from the Channel 16 watch. Although Maritel generally does not qualify its assertion that VPC stations have been given discretion as to whether or not to have an operator on duty, it elsewhere states that, "[p]lainly, a coast station that is not required to maintain a channel 16 watch should not be required to have an operator on duty." *Id.* at 7-8.

[69] *Id.* at 7, *citing* Amendment of the Commission's rules Concerning Maritime Communications, *Second Report and Order and Second Further Notice of Proposed Rule Making*, PR Docket No. 92-257, 12 FCC Rcd 16949, 16959 ¶ 14 (1997) (*VPC Second R&O*).

[70] *VPC Second R&O*, 12 FCC Rcd at 16959, ¶ 14 ("Allowing public coast stations the option to provide automatic interconnection between marine radios and the PSN [public switched network] will enhance their ability to compete effectively in coastal regions with other CMRS providers ....").

[71] Maritel Reply Comments (WT 00-48) at 7 (*citing VPC Third R&O*, 13 FCC Rcd 19881, ¶ 58).

with their public safety component."[72] Read in context, then, the holdings cited by Maritel did not intend to give VPC licensees discretion to dispense with a live operator for the receipt of distress calls to be forwarded to search and rescue authorities, but only with respect to public correspondence. We believe a contrary reading, moreover, would be inconsistent with the plain language of section 80.153 of the Commission's rules, which states that, "[e]xcept as provided in § 80.179, operation of a coast station transmitter must be performed by a person holding a commercial radio operator license of the required class, who is on duty at the control point of the station."[73]

20. In sum, we believe that the Commission's current rules retain an operator requirement for VPC stations subject to a Channel 16 watch, that the requirement is rooted in maritime safety concerns, and that Maritel has not demonstrated that it would serve the public interest to remove this requirement. We agree with the USCG that retaining the operator requirement for VPC stations that remain subject to a Channel 16 watch will promote maritime safety by better ensuring that VHF distress calls received by such stations are properly relayed to search and rescue authorities.[74] On the other hand, we agree with Maritel insofar as it contends that unattended operation of non-DSC equipment is permissible for VPC stations that are exempt from the Channel 16 watch.

D. Distress Frequency Signals

21. *Background.* In the *FNPRM*, the Commission invited comment on a USCG proposal to amend section 80.203 of the Commission's rules[75] to prohibit the inclusion in ship stations of any device capable of transmitting on a distress frequency any signal that is not specifically authorized in the rules.[76] The Commission noted, however, that the Communications Act is very permissive about distress signals, and that the effect of this proposal on the ability of manufacturers to add tone signaling equipment was unclear.[77] The Commission also stated that this proposal appeared to impede manufacturers from improving their equipment.[78]

22. *Discussion.* Based on the record evidence, we adopt the USCG's proposal, and amend section 80.203 to bar ship stations from including any device capable of transmitting on a distress frequency without regulatory authorization. We concur with the USCG and RBAW that this amendment will promote safety by better ensuring that the USCG can process any distress or safety signal it receives.[79] As the USCG observes, "[a]bsent regulation of the signal characteristics being transmitted, the high potential exists that an emission thought helpful by an individual manufacturer could unintentionally result in adverse effects to other vessels or the shore-based system."[80] The Commission's concerns about the proposed amendment were premised on the effect it might have on manufacturers' flexibility. However, no manufacturer has interposed any objection to the proposal, and there is nothing in the record to indicate that it will adversely affect manufacturers. In addition, we conclude that a prohibition on

[72] *VPC Third R&O*, 13 FCC Rcd at 19881 ¶ 57 (emphases added); *see also id.* at 19881, ¶ 58.

[73] 47 C.F.R. § 80.153(a).

[74] USCG Comments (WT 00-48) at 4.

[75] 47 C.F.R. § 80.203.

[76] *GMDSS FNPRM*, 17 FCC Rcd at 6783, ¶ 115.

[77] *Id.*

[78] *Id.*

[79] USCG Comments (WT 00-48) at 4; RBAW Comments at 1. *See also* Neuman Comments at 2.

[80] USCG Comments (WT 00-48) at 4.

devices capable of transmitting unauthorized signals is consistent with the Communications Act.[81]

E. Emission Classes

23. The Commission invited further comment in the *FNPRM* on whether to delete any of the emission classes authorized under section 80.205 or section 80.207.[82] The Commission asked any proponents of the deletion of an emission class to explain the public interest benefits of such a deletion, and said it was especially interested in receiving data or anecdotal evidence indicating whether the availability of these emission classes has caused actual interference to marine radio communications.[83] The Commission received no comments addressing this issue, and we will accordingly retain all of the existing classes of emissions authorized under sections 80.205 and 80.207 of the Commission's rules.

F. Use of Channels 75 and 76 for Port Operations

24. *Background.* Section 80.373 of the Commission's rules describes the carrier frequencies assignable for ship-to-ship and ship-to-coast private communications.[84] Based on a USCG recommendation, the Commission proposed in the *FNPRM* to amend section 80.373 by redesignating Channels 75 (156.775 MHz) and 76 (156.825 MHz), which are currently designated as guard bands for Channel 16 (156.800 MHz) and thus unavailable for use, for port operations.[85] The Commission further proposed to limit transmitter output power on Channels 75 and 76 to one watt for ship stations and ten watts for coast stations, and to require all precautions necessary to avoid harmful interference to Channel 16.[86] In addition, the Commission invited comment on amending section 80.215(g)(3) of its rules[87] to require the design of transmitters that will reduce the carrier power to one watt or less when the transmitter is tuned to Channel 75 or 76, with no manual override capability.[88] The Commission also sought comment on whether to require all new radios to have the ability to tune to Channels 75 and 76.[89] The Commission did not propose to adopt these equipment requirements, but only sought comment on whether they should be adopted, because it was concerned about the impact on manufacturers of such requirements.[90] The Commission also asked for suggestions on appropriate grandfathering clauses, should it implement these proposed new equipment requirements, and asked whether it should convert Channels 75 and 76 to narrowband channels.[91] Finally, and again based on the USCG's recommendation, the Commission proposed to amend the table heading for Channel 22A to read "Liaison and Safety Broadcasts, U.S. Coast Guard" to reflect how the frequency is being used.[92]

25. *Discussion.* We concur with the USCG and RBAW, the only commenters addressing this

[81] See 47 U.S.C. §§ 302, 361.

[82] *GMDSS FNPRM*, 17 FCC Rcd at 6783, ¶ 116.

[83] *Id.*

[84] 47 C.F.R. § 80.373.

[85] *GMDSS FNPRM*, 17 FCC Rcd at 6783, ¶ 117. As part of this proposal, the Commission would add Channels 75 and 76 to the table in Section 80.373(f) of its rules, 47 C.F.R. § 80.373(f).

[86] *GMDSS FNPRM*, 17 FCC Rcd at 6783, ¶ 117.

[87] 47 C.F.R. § 80.215(g)(3).

[88] *GMDSS FNPRM*, 17 FCC Rcd at 6784, ¶ 118.

[89] *Id.*

[90] *Id.*

[91] *Id.*

[92] *Id.*

issue, that we should designate Channels 75 and 76 for port operations and designate Channel 22A as "Liaison and Safety Broadcasts, U.S. Coast Guard."[93] There is a need for additional spectrum for port operations-related communications, and redesignating Channels 75 and 76 for that purpose will address that need. We also agree with the USCG that we should mandate that new ship radio equipment be required to have Channels 75 and 76, and be required to reduce the carrier power to one watt or less, with no manual override capability, when the transmitter is tuned to either of those channels.[94] These measures will ensure the effective use of Channels 75 and 76 for port communications without causing harmful interference to Channel 16. The Commission declined to propose these equipment requirements in the *FNPRM* out of a concern about the impact they might have on manufacturers.[95] The Commission specifically solicited comment from manufacturers as to how such requirements might affect them.[96] We did not receive responsive comments from any manufacturer, and there is nothing in the record to suggest that these requirements will be onerous or problematic. In addition, no commenter suggested a specific period of grandfathering protection.[97] We believe it would impose unnecessary costs on ship station licensees and possible burdens on manufacturers to require that they immediately replace all existing radio equipment that does not comply with the new requirements, so we will grandfather existing equipment indefinitely from these requirements. Non-compliant equipment installed prior to the effective date of these rules may continue to be used for its remaining useful life. In addition, we will allow installation of non-compliant equipment until one year after the effective date of these rules. Beginning one year after the effective date of these rules, we will require new equipment installations to comply with the new requirements pertaining to Channels 75 and 76. Given that no manufacturers commented on these equipment issues, we have no reason to believe that this approach will leave manufacturers with stranded inventory. Finally, we decline to narrowband channels 75 and 76 because, as noted by the USCG, this conversion could potentially affect the interoperability of existing equipment with new equipment.[98]

G. Digital Selective Calling Equipment

26. The Commission proposed in the *FNPRM,* based on a USCG recommendation supported by RBAW, to amend section 80.225 of its rules,[99] which sets forth the requirements for selective calling equipment, to incorporate the RTCM Special Committee 101's Recommended Practices for Digital Selective Calling Equipment Design and Implementation.[100] Commenters were asked, *inter alia*, to consider whether further amendments to section 80.225 are warranted in light of continued revisions to DSC requirements under consideration by both the ITU and the IEC.[101] The unanimous view of the commenters was that we should defer amending section 80.225 until the adoption of ITU Recommendation ITU-R M.493-11.[102] After these comments were filed, the ITU completed its revisions

[93] USCG Comments (WT 00-48) at 4; RBAW Comments at 1.

[94] USCG Comments (WT 00-48) at 4-5.

[95] *GMDSS FNPRM*, 17 FCC Rcd at 6784 ¶ 118.

[96] *Id.*

[97] The USCG did state that the Commission has traditionally grandfathered existing equipment for a considerable period of time after imposition of a new requirement, and that the USCG supports similar treatment here for existing VHF FM equipment. USCG Comments (WT 00-48) at 4-5.

[98] USCG Comments (WT 00-48) at 5.

[99] 47 C.F.R. § 80.225.

[100] *GMDSS FNPRM*, 17 FCC Rcd at 6784, ¶ 119.

[101] *Id.* at 6784-85, ¶ 119.

[102] USCG Comments (WT 00-48) at 5; RTCM Comments at 2; RBAW Reply Comments at 2. RBAW initially took the position that we should implement the proposed amendment of Section 80.225 immediately. RBAW Comments (continued....)

to both Recommendation ITU-R M.493 and Recommendation ITU-R M.541, and the IEC adopted its Class D standard 62238 for DSC equipment. In light of these developments, we are requesting comment in the *GMDSS 2nd FNPRM* on whether we should amend section 80.225 to incorporate ITU Recommendation ITU-R M.493-11, ITU Recommendation ITU-R M.541-9, and possibly IEC 62238.[103]

H. Distress Call and Message Transmission Procedures

27. *Background.* Sections 80.320 through 80.326 of the Commission's rules provide the radiotelephone and radiotelegraph distress call and message transmission procedures.[104] Sections 80.327 through 80.329 describe urgency signals and messages, and safety signals.[105] In the *FNPRM*, the Commission sought further comment on a Task Force recommendation to revise these sections to incorporate DSC and GMDSS procedures.[106] The Commission noted that its existing distress call and message transmission procedures were consistent with international procedures, and that the ITU was expected to soon address the issue of whether there is still a need to specify radiotelegraph distress call and message transmission procedures in the international *Radio Regulations*.[107] The Commission accordingly questioned whether it should await the results of the international deliberations before making any changes in sections 80.320 to 80.329.[108]

28. *Discussion.* After reviewing the scant record on this issue, we conclude that, at this time, we should amend sections 80.320 through 80.329 to eliminate the references to radiotelegraph operation, including the international radiotelegraph distress frequencies 500 kHz and 8364 kHz.[109] In the *GMDSS R&O*, the Commission concluded that it should delete all references in Part 80 to 500 kHz and 8364 kHz as distress and safety frequencies, as these frequencies are not currently in use.[110] At that time, the Commission inadvertently failed to delete the references to 500 kHz and 8364 kHz in section 80.329(d) of the rules.[111] We rectify that oversight here.[112] In all other respects, we decline to revise these sections further. We may address this matter in a future proceeding upon the completion of international

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at 2. In its Reply Comments, however, RBAW agreed with the USCG and RTCM that it is appropriate to defer any amendment of Section 80.225. RBAW Reply Comments at 2.

[103] *See* ¶ 79, *infra*.

[104] 47 C.F.R. §§ 80.320-80.326.

[105] *Id.* §§ 80.327-80.329.

[106] *GMDSS FNPRM*, 17 FCC Rcd at 6785, ¶ 120.

[107] *Id.*

[108] *Id.*

[109] *See* Owen Anderson Comments at 5 (recommending that the Commission amend sections 80.320-80.329 to eliminate the references to radiotelegraph operation, including the international radiotelegraph distress frequencies 500 kHz and 8364 kHz). The only commenter addressing this issue beside Owen Anderson is the USCG, which is not making a specific recommendation on this issue at this time. The USCG simply observes that it now appears unlikely that the ITU will address the issue of distress call and message transmission procedures at the next World Radio Conference, and thus it will be 2006 or later before the ITU radio regulations are changed regarding this matter. The USCG indicates that it believes we should delete some of these provisions from the Commission's rules, but that it "will separately propose specific language to accomplish this." USCG Comments (WT 00-48) at 6.

[110] *GMDSS R&O*, 17 FCC Rcd at 6760, ¶ 45.

[111] 47 C.F.R. § 80.329(d).

[112] In keeping with the Commission's determination in the *GMDSS R&O*, *see* note 110, *supra*, we will delete as obsolete all remaining references to the 500 kHz and 8364 kHz distress frequencies throughout Part 80, not just the references in the rules governing distress call and message transmission procedures.

deliberations.

I. INMARSAT-E EPIRBS

29. *Background.* In the *FNPRM*, the Commission invited comment on USCG and Task Force proposals to authorize INMARSAT-E EPIRBs.[113] The Commission noted that INMARSAT-E EPIRBs may offer a significant enhancement to maritime safety because, *inter alia*, the distress signal that INMARSAT-E EPIRBs transmit to INMARSAT geostationary satellites includes location data derived from a GPS navigational satellite receiver inside the EPIRB; INMARSAT-E EPIRBs may be detected anywhere in the world between 70 degrees North latitude and 70 degrees South latitude; and alerts are transmitted nearly instantly to a rescue coordination center associated with the INMARSAT coast earth station receiving the alert.[114] The Task Force recommended that the Commission amend its rules to permit the use of INMARSAT-E EPIRBs by U.S. vessels operating solely within the INMARSAT coverage footprint, provided that the INMARSAT-E EPIRB incorporates a 121.5 MHz homing capability, a strobe light, and an integral GPS receiver.[115] The USCG stated that it has no objection to permitting the use of INMARSAT-E EPIRBs, provided that the INMARSAT-E EPIRB, alone or in conjunction with the system within which it functions:

- provides for locating (homing) on 121.5 MHz;
- includes a strobe light which complies with RTCM Recommended Standards for 406 MHz EPIRBs, Version 2.1, August 22, 2000;
- requires a suitable two-step means of activation which complies with the RTCM standard;
- if intended for automatic activation, is designed to operate automatically only when the beacon is both out of its mounting bracket and submerged in water, in compliance with the RTCM standard;
- is capable of providing regular non-manual position updates after the beacon floats free;
- has an associated registration database that fully complies with the data requirements of IMO Assembly Resolution A.887(21); and
- complies with IEC 61097-5 Ed. 1.0, Global maritime distress and safety system (GMDSS) – Part 5: INMARSAT-E EPIRB operating throughout the INMARSAT system – Operational and performance requirements, methods of testing and required test results.[116]

The USCG added that, if we do authorize INMARSAT-E EPIRBs, we should amend section 80.1085(a)(6) of the rules[117] to mandate annual testing, as is required for 406.0-406.1 MHz EPIRBs.[118] The Commission invited interested parties to address whether the conditions set forth above are necessary and sufficient, and to suggest additional conditions.[119]

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[113] *GMDSS FNPRM*, 17 FCC Rcd at 6785-86, ¶ 121.

[114] *Id.*

[115] *Id.*

[116] *Id.*

[117] 47 C.F.R. § 80.1085(a)(6).

[118] *GMDSS FNPRM*, 17 FCC Rcd at 6786, ¶ 121.

[119] *Id.*

30. *Discussion.* We agree with the commenters that INMARSAT-E EPIRBs represent an important tool for improving maritime safety and have gained international acceptance, and that we should authorize their use.[120] We conclude that we should model the equipment certification process for INMARSAT-E EPIRBs on the process for 406-406.1 MHz EPIRBs, as set forth in section 80.1061 of the Commission's rules.[121] That process has worked well, and there is no reason it should not be adaptable to INMARSAT-E EPIRBs. Accordingly, as a starting point, we will incorporate by reference IEC 61097-5, and require that all INMARSAT-E EPIRBs meet the requirements of that standard.[122] We will also mandate, as we do with respect to 406-406.1 MHz EPIRBs pursuant to section 80.1061(b), that INMARSAT-E EPIRBs have a 121.5 MHz homing beacon, consistent with the recommendations of the USCG, the Task Force, and RTCM.[123] The standards for 121.5 MHz beacons are incorporated in Annex B of IEC 61097-5, and we will require all INMARSAT-E EPIRBs to comply with Annex B. We decline to adopt the remainder of the conditions proposed by the USCG – regarding a strobe light, a two-step means of activation, compliance with RTCM standards for automatic activation, and the capability of providing regular non-manual position updates after the beacon floats free – because all of these capabilities are already incorporated in the existing standard, and we see no reason to add what would be essentially redundant requirements. With regard to the registration database requirement, we note that INMARSAT-E EPIRBs must be registered with INMARSAT. We do not have authority to direct INMARSAT to make changes to its database, and we have no reason to believe that its database is deficient. Finally, we decline at this time to mandate the additional requirements[124] and testing[125] suggested by RTCM because we have no reason to believe that the testing requirements set forth in IEC 61097-5 are not sufficiently rigorous. However, we may revisit this issue if circumstances warrant.

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[120] *See* USCG Comments (WT 00-48) at 6; Task Force Comments at 5; RTCM Comments at 2; RBAW Comments at 2; Dr. Schenk of America LLC Comments at 1.

[121] 47 C.F.R. § 80.1061.

[122] *See* USCG Comments (WT 00-48) at 6; RTCM Comments at 2; RBAW Comments at 2; *contra*, Dr. Schenk of America LLC Comments at 1.

[123] USCG Comments (WT 00-48) at 6; Task Force Comments at 5; RTCM Comments at 2-7; *accord* RBAW Comments at 2. RTCM notes that mandating a 121.5 MHz homing device is important because IEC 61097-5 only provides for an optional 121.5 MHz homing device. RTCM Comments at 2.

[124] RTCM Comments at 2-7. RTCM recommends specifically that we: (1) mandate a 121.5 MHz homing device, since it is only optional under IEC 61097-5; (2) specify a light flash rate and flash duration for the strobe light; (3) not include any special requirement for a special manual switch; (4) not include any special requirement for automatic activation; (5) require that INMARSAT-E EPIRBs be equipped with a Global Navigation Satellite System (GNSS) receiver to ensure regular non-manual position updates; (6) mandate registration of the INMARSAT-E EPIRBs, as was done with 406-406.1 MHz EPIRBs; (7) mandate a USCG-approved float-free mechanism; and (8) add a number of tests to the certification process for INMARSAT-E EPIRBs, including a 1 m drop test, a more stringent immersion test, a test of the self-test function, a humidity test, and an orientation test. *Id.*

[125] RTCM recommends, for example, that the Commission require compliance with the immersion test specified in the RTCM standards (paragraph A9.0), which is more comprehensive than the IEC 61097-5 immersion tests, and requires storage for one hour at 65 degrees Celsius, immediately followed by immersion in 20 degrees Celsius water for 48 hours. RTCM Comments at 4. Similarly, it notes that, while IEC 61097-5 includes a high-temperature thermal shock test, the RTCM standards (paragraph A11.1) include both this test and a low-temperature shock test where the EPIRB has been stowed at -30 degrees Celsius, is immediately immersed in 0 degrees Celsius water and is required to operate. RTCM recommends mandating the low-temperature shock test. *Id.* Although it can reasonably be posited that requiring more stringent testing may result in EPIRBs of greater durability, RTCM does not explain why the IEC standards should not be viewed as adequate, especially given their international acceptance and endorsement by the U.S. Coast Guard, and offers no analysis of why the incremental gains in EPIRB durability outweigh the (unquantified) costs of mandating the additional testing.

31. Before submitting an application to the Commission for certification of an INMARSAT-E EPIRB, applicants must have the device certified by INMARSAT- or USCG-recognized test facilities to ensure compliance with both the Commission's technical requirements and USCG environmental and operational requirements, and secure a letter from the USCG that states that the radiobeacon satisfies all requirements. The application to the Commission must include that USCG letter, a copy of the technical test data, and the instruction manual(s), just as we require for 406-406.1 MHz EPIRBs.[126] Finally, as proposed by the USCG, we will amend section 80.1085(a)(6) to mandate annual testing of INMARSAT-E EPIRBs.[127]

J. Small Passenger Vessels

1. DSC Upgrades of VHF and MF Radios

32. *Background.* In the *FNPRM*, the Commission sought further comment on its proposal in the *GMDSS NPRM*[128] to amend section 80.905(a)(1)-(4) of its rules,[129] which sets forth the equipment requirements applicable to small passenger vessels, to require that the VHF and MF radios required in these sections be DSC-equipped.[130] The USCG and Task Force concurred in the *FNPRM* proposal, and the Task Force also recommended that we require upgrades to VHF-DSC within one year after the USCG declares Sea Area A1 operational, and to MF-DSC within one year after the USCG declares Sea Area A2 operational.[131] The Commission noted in the *FNPRM* that this rule change would in effect impose a GMDSS requirement on small passenger vessels, which are not covered by the GMDSS rules.[132]

33. *Discussion.* After reviewing the augmented record, we conclude that we should amend section 80.905(a), as proposed, to require the inclusion of DSC capability in the VHF and MF radios already mandated by the rule.[133] Requiring DSC capability in the VHF and MF radio equipment carried by small passenger vessels will promote maritime safety by including these vessels in the common GMDSS distress and safety system, benefiting not only the operators, crew and passengers of small passenger vessels, but all GMDSS participating vessels.[134]

34. The USCG and the Task Force reiterate their strong support for this proposal, noting the important safety benefits of mandating a DSC upgrade for the VHF and MF radio equipment carried on small passenger vessels.[135] We note that the only commenter opposing this proposal, PVA, does not

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[126] *See* 47 C.FR. § 80.1061(c)-(d).

[127] We note that no commenters specifically addressed the annual testing proposal. We agree with the USCG that annual testing is appropriate because we can discern no principled basis for treating INMARSAT-E EPIRBs differently from 406-406.1 MHz EPIRBs in this regard.

[128] *GMDSS NPRM*, Appendix A, 15 FCC Rcd at 5984.

[129] 47 C.F.R. § 80.905(a)(1)-(4).

[130] *See GMDSS FNPRM*, 17 FCC Rcd at 6786, ¶ 122.

[131] *See id.*

[132] *Id.*

[133] We also agree with the USCG that the class of DSC equipment needs to be specified, and we will amend the rules to require that the DSC-equipped radios required by this section meet ITU-R Rec. M.493 (series) Class A, B or D for VHF and Class A, B or E for MF.

[134] According to the USCG, "IMO organizations have recognized the value of GMDSS techniques (suitably scaled for other than mandatory equipped GMDSS vessels) in enhancing maritime safety." USCG Comments (WT 00-48) at 6-7.

[135] USCG Comments (WT 00-48) at 6; Task Force Comments at 5. *See also* Neuman Comments at 2 ("The SOLAS requirement is better served by requiring all ships that carry passengers (including the Charter Boat Industry) to have (continued....)

directly dispute the significant public safety benefits this rule change will provide.[136] PVA believes, however, that the benefits are outweighed by the costs.[137] We do not lightly impose what are GMDSS requirements on vessels not required by the SOLAS Convention to meet those requirements. PVA contends that instead of imposing what are GMDSS-derived equipment requirements on vessels exempt from GMDSS requirements under SOLAS, the Commission should broaden the exemption to cover all passenger-carrying vessels, irrespective of size, that operate in protected waterways, such as harbors, bays and waterways covered by Vessel Traffic Systems (VTS).[138] However, we do not believe the costs incurred by the small passenger industry to comply with the DSC requirement will be significant. We note in this regard that, pursuant to section 80.203(n) of the Commission's rules,[139] all VHF and MF marine radio transmitters submitted for equipment authorization on or after June 17, 1999 must have DSC capability. Further, we adopt the Task Force's proposal to defer the requirement to upgrade VHF equipment to DSC until one year after the USCG declares Sea Area A1 operational, and to defer the requirement to upgrade MF equipment to DSC until one year after the USCG declares Sea Area A2 operational.[140] We agree with the USCG that giving the small passenger vessel industry notice at this time of requirements that will not take effect until one year after Sea Area A1 and Sea Area A2 become operational "will allow for the orderly procurement and installation of equipment, if necessary."[141]

2. DSC Upgrades for Single Sideband (SSB) Radios

35. *Background.* Section 80.905 also specifies that small passenger vessels operating more than 100 nautical miles from shore must carry SSB radios.[142] In the *FNPRM*, the Commission sought comment on the USCG's recommendation that newly fitted SSB radios required by these sections be DSC-equipped in accordance with ITU-R Rec. (series) M.493 Class A, B or E.[143] The USCG reasoned that this proposed DSC requirement was warranted because ships operating on an HF transceiver may not be able to reliably contact the USCG on these radios in an emergency due to a lack of coast stations receiving such transmissions, whereas the USCG has implemented HF-DSC capability at various coast communications stations.[144]

36. *Discussion.* Based on the present record, we amend section 80.905 to require that vessels

(...continued from previous page)
DSC equipment that meets/exceeds the Sea Area A1 and/or A2 [sic]. DSC transmission will get through when voice transmission will not.").

[136] *See* PVA Comments at 1-2. We have nothing in the record to quantify the compliance costs that will be incurred by small passenger vessels, even though the Commission specifically inquired about the propriety of imposing this requirement on small passenger vessels in the *FNPRM*. *See GMDSS FNPRM*, 17 FCC Rcd at 6786, ¶ 122.

[137] PVA asserts that the vast majority of U.S. passenger vessel operating companies are small businesses, and many can be characterized as "mom and pop operations." PVA Comments at 1.

[138] To the extent that PVA's intention is to actually propose such a relaxation of the scope of the GMDSS requirements, we believe it falls outside the scope of the *FNPRM*.

[139] 47 C.F.R. § 80.203(n).

[140] Task Force Comments at 5.

[141] USCG Comments (WT 00-48) at 6.

[142] 47 C.F.R. § 80.905(a)(3)(iii)(A), (4)(iii)(A).

[143] *See GMDSS FNPRM*, 17 FCC Rcd at 6786, ¶ 123. The Commission also sought comment on the Task Force's assertion that vessels operating over 200 nautical miles from shore should not be permitted to use an SSB radio in lieu of the HF-DSC channels prescribed for GMDSS. *Id.* In the absence of any comments directly addressing this issue, we decline to take any action.

[144] *See id.*

operating more than 100 nautical miles from shore carry DSC-equipped SSB radios.[145] We believe that the same safety considerations that militate in favor of a DSC requirement for VHF and MF radio equipment apply equally, if not more, to a DSC requirement for SSB radios on vessels traveling more than 100 nautical miles from shore. The USCG, the only party directly commenting on this issue, states that, as in the case of VHF and MF radio equipment, requiring DSC capabilities in SSB equipment is warranted because the "benefits of DSC techniques and the enhanced level of distress alert processing over existing voice radios are well understood and accepted.... Utilizing DSC techniques will enable the mariner to alert nearby shipping as well as shore facilities that have already ceased guarding SSB frequencies."[146] No party has opposed the proposal or attempted to quantify the costs of compliance. On this record, then, we believe considerations of maritime safety must be given paramount weight. To give affected parties sufficient time to prepare for this new requirement, we will defer the effective date until one year after the effective date of these rules.

3. INMARSAT Ship Earth Stations

37. *Background.* Section 80.905 also permits ships operating more than 100 nautical miles from shore to carry INMARSAT ship earth stations in lieu of an SSB radio.[147] The USCG recommended that we revise section 80.905 to limit the ship earth stations authorized by that section to INMARSAT A (existing units only), B, C or M.[148] The USCG reasoned that such a requirement is necessary because the other INMARSAT units available for purchase do not have distress calling functions.[149] The Commission invited comment on this proposal.[150]

38. *Discussion.* Based on the record evidence, we limit the types of INMARSAT earth stations that may be carried in lieu of the SSB otherwise required under the rule, as proposed by the USCG.[151] Limiting the earth stations authorized by section 80.905 to INMARSAT A (existing units only), B, C or M earth stations represents a reasonable compromise between tightening the existing rule for safety reasons while according a limited measure of flexibility to small passenger vessel operators in meeting the requirement. In addition, we note that the IMO now accepts the INMARSAT F-77 earth station as meeting GMDSS requirements, and the IEC has published certification standard 61097-13 for the INMARSAT F-77. We invite comment in the *GMDSS 2nd FNPRM* on whether to add the INMARSAT F-77 to the list of earth stations that may be used in lieu of an SSB radio pursuant to section 80.905.[152]

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[145] Such vessels are not relieved of the requirement to also carry a DSC-equipped VHF or MF radio pursuant to the amendment in this order of Section 80.905(a)(1).

[146] USCG Comments (WT 00-48) at 7.

[147] 47 C.F.R. § 80.905(a)(3)(iii)(B), (4)(iii)(B).

[148] *See GMDSS FNPRM*, 17 FCC Rcd at 6787, ¶ 124.

[149] *See id.*

[150] *Id.*

[151] The Task Force recommends that we add the INMARSAT Mini-M to the list of approved ship earth stations. Task Force Comments at 5. We decline to do so because the INMARSAT Mini-M does not have the distress alert processing capabilities that we believe should be included in any ship earth station that is intended for use in lieu of an SSB radio. We note, in this regard, that the USCG continues to adhere to the view that only INMARSAT A (existing units only), B, C, or M earth stations should be permitted because of their superior ability to ensure priority processing of distress messages. USCG Comments (WT 00-48) at 7. Neuman, on the other hand, contends that INMARSAT M earth stations should be removed from the list because of the same concern to ensure priority processing of distress messages. Neuman Comments at 2.

[152] *See* ¶ 80, *infra*.

4. Reserve Power Supplies

39. Section 80.905 of the Commission's rules mandates that vessels required to carry SSB radios must also carry reserve power supplies capable of powering SSB radios.[153] In order to maintain consistency with changes to section 80.1099, which concerns the testing of battery chargers, the USCG proposed the addition of the words "including the navigation receiver referred to in § 80.905(a)(5)" at the end of these subparagraphs.[154] The Commission invited comment on this proposal. The USCG was the sole commenter addressing this issue, and it continues to urge Commission adoption of its proposal for reserve power supplies.[155] The USCG reasons that "[e]nsuring that certain equipment has a reliable source of power during an emergency can only improve the safety of all concerned."[156] We agree, and we accordingly amend the rule to extend the reserve power supply requirement to the navigation receiver.

5. Updating Position Information

40. The Commission sought comment on a USCG proposal to add a new paragraph (a)(5) to section 80.905, to state "All vessels must additionally meet the requirements of section 80.1085(e)."[157] The USCG reasoned that the same requirements for updating position information used in automated distress alerting systems, as proposed by the Commission in section 80.1085, are applicable to this section as well.[158] The Commission sought public comment on this proposal, noting that the proposed rule change would impose a GMDSS requirement on these small passenger vessels.[159] The USCG reiterates its support for this rule change, explaining that "[h]aving updated position information will enable the Coast Guard to locate distressed mariners in a more timely manner ... [and] better utilize its limited assets in a more efficient and fiscally responsible manner."[160] We adopt this requirement because it will enhance maritime safety. No party specifically opposed this proposal or introduced evidence that the costs of compliance with this requirement would outweigh its benefits.

K. GMDSS Rules

1. Dedicated Radio Operator During Distress Situations

41. *Background.* In the *FNPRM*, the Commission invited comment on a USCG proposal to add to section 80.1073 of the rules[161] a specific requirement that on passenger ships, at least one qualified person must be assigned to perform only radio communications duties during distress situations.[162] The Commission asked commenters to consider whether the proposed amendment was necessary in light of the existing rule, which mandates that a qualified GMDSS radio operator be available to act as a

[153] 47 C.F.R. § 80.905(a)(3)(iv), (4)(iv).

[154] *GMDSS FNPRM*, 17 FCC Rcd at 6787, ¶ 125.

[155] USCG Comments (WT 00-48) at 7.

[156] *Id.*

[157] *GMDSS FNPRM*, 17 FCC Rcd at 6787, ¶ 125. The correct reference is to 47 C.F.R. § 80.1085(c) (as amended by the *GMDSS R&O*), rather than 47 C.F.R. § 80.1085(e).

[158] *See id.*

[159] *Id.*

[160] USCG Comments (WT 00-48) at 7.

[161] 47 C.F.R. § 80.1073.

[162] *GMDSS FNPRM*, 17 FCC Rcd at 6787, ¶ 126.

dedicated radio operator in cases of distress on all ships subject to GMDSS requirements.[163]

42. *Discussion.* Although we appreciate the maritime safety rationale behind the USCG's proposal to mandate that at least one qualified person on a passenger ship must be assigned to perform only radio communications duties during distress situation, the record evidence does not establish that adoption of this proposal would result in significant safety benefits beyond those that are already realized by virtue of the existing section 80.1073(b)(1) requirement. Although the USCG renews it support for its proposal,[164] no other commenter supports the proposal.[165] In addition, PVA persuasively argues that adoption of the proposal could constitute a potentially significant burden for small passenger vessel operators,[166] and could also be counterproductive by usurping the authority of the Master of the vessel to allocate personnel resources as he or she thinks best in a distress situation.[167] We are not prepared to say that an emergency situation could never arise in which the Master of the vessel might reasonably redeploy a qualified radio operator to perform a non-communications-related task at some point during the emergency before directing the operator to resume his or her radio duties. Accordingly, we continue to believe that it is sufficient that the Commission's rules mandate that a qualified GMDSS radio operator be available to act as a dedicated radio operator in cases of distress, and that dictating the actual function to be performed by that operator at all times during an emergency would constitute a type of micromanagement that the Commission strives to avoid.[168]

2. Ship Radio Installations

43. *Background.* Section 80.1083 of the Commission's rules governs the requirements for ship radio installations.[169] Based on a USCG recommendation, the Commission proposed in the *FNPRM* to add the following requirements to section 80.1083 in order to incorporate new SOLAS regulations:

- 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.

- 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.

[163] *Id.* (*citing* 47 C.F.R. § 80.1073(b)(1)).

[164] USCG Comments (WT 00-48) at 7.

[165] *See* PVA Comments at 1-2; Owen Anderson Comments at 6. The Task Force did not comment on this proposal.

[166] PVA Comments at 1-2 ("The requirement for a dedicated, GMDSS qualified resource imposes costs for crew and training without any discussion or demonstration of benefit. This individual would have to have some functional role within the crew beyond the one that hopefully and probably will never be needed").

[167] *Id.* at 1.

[168] *See, e.g.*, The Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communication Requirements Through the Year 2010, *Second Memorandum Opinion and Order*, WT Docket No. 96-86, 15 FCC Rcd 16844, 16882, ¶ 81 (2000) (declining to micromanage Part 90 frequency coordinators' approach to frequency coordination).

[169] 47 C.F.R. § 80.1083.

- 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.[170]

44. *Discussion.* We adopt the proposed amendment to section 80.1083, as set forth in the *FNPRM*, notwithstanding the concerns expressed by some commenters regarding the sentence that reads, "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." These commenters state that an EPIRB mounted inside a steel wheelhouse would be of dubious utility because of the attenuation of its signal and because it would lack float-free capability.[171] We are not troubled by these concerns about the efficacy of a wheelhouse-mounted EPIRB because, as the sentence makes clear, all that is being done is to authorize the use of such an EPIRB as a *backup* on a *permissive* basis. No one is required to install such an EPIRB, and no one is permitted to place primary reliance on such an EPIRB. We assume, moreover, that this provision contemplates that the EPIRB will be taken outside before activation.

3. Capability for Two-Way Communication on Aeronautical Frequencies

45. *Background.* The Commission proposed to incorporate into section 80.1085 of its rules[172] the SOLAS requirement that every passenger ship be provided with means for two-way on-scene radiocommunications for search and rescue purposes using the aeronautical frequencies 121.5 and 123.1 MHz from the position from which the ship is normally navigated.[173] Comment was invited on this proposal, which was based on a USCG recommendation.[174]

46. *Discussion.* We will adopt the proposed requirement, which is supported by the USCG,[175] because it is already required internationally under SOLAS, and it will promote maritime safety by enabling passenger vessels to contact nearby aircraft to facilitate search and rescue operations. PVA argues that a requirement for on-scene radios with aeronautical frequencies is expensive and "has no foreseeable use outside of open ocean environments."[176] PVA urges that we decline to impose this requirement upon passenger vessels operating in or near coastal, inland, and other protected waters.[177] More broadly, PVA complains that the USCG's proposals in this proceeding indicate that the USCG is seeking to extend equipment requirements that are justified for vessels in open-ocean service to vessels on domestic voyages.[178] "This domestication of international requirements," PVA says, "imposes undue economic burdens on the U.S. flag fleet without demonstrating any safety benefits."[179] Although we are mindful of PVA's concerns that equipment requirements that make sense for vessels on the open-ocean not be extended without further analysis to vessels that stay closer to shore, we disagree that an on-scene

[170] *GMDSS FNPRM*, 17 FCC Rcd at 6787-88, ¶ 127.

[171] Task Force Comments at 5; Neuman Comments at 2; Owen Anderson Comments at 6.

[172] 47 C.F.R. § 80.1085.

[173] *GMDSS FNPRM*, 17 FCC Rcd at 6788, ¶ 128.

[174] *Id.*

[175] USCG Comments (WT 00-48) at 7.

[176] PVA Comments at 2.

[177] *Id.*

[178] *Id.*

[179] *Id.*

capability for two-way radiocommunications with aircraft using the aeronautical frequencies 121.5 and 123.1 MHz offers no potential safety benefits to vessels on domestic voyages. We believe that the ability to communicate with helicopters or other aircraft involved in search and rescue operations could save lives where, for example, a passenger vessel catches fire and is exuding thick smoke on an inland waterway. Further, we do not believe that adopting this requirement in the Part 80 rules imposes a new compliance cost on passenger vessels since the requirement was imposed internationally well before the release of this order. In addition, because the safety benefits of this requirement are not dependent on GMDSS implementation, and because passenger vessels are already required to have this capability under SOLAS, there is no reason to defer the effective date of this requirement to one year after Sea Area A1 or Sea Area A2 implementation, as we have done with some of the other requirements adopted herein in the interest of reducing compliance costs.[180] However, we believe it is appropriate to defer the effective date for this requirement for some shorter period in order to mitigate the compliance costs for small passenger vessel operators. Accordingly, we will make this requirement effective six months after publication of the amended rule in the Federal Register.

L. Electronic Mail (E-Mail) Requests

47. In the *FNPRM*, the Commission solicited comment on a Task Force proposal to allow e-mail as a permitted mode for making official requests and reports required under Part 80 of the Commission's rules.[181] The Commission asked commenters to explain why it should adopt a rule on electronic filing that is specific to Part 80, instead of addressing the issue more broadly.[182] In response, the commenters uniformly urge that we permit e-mail submissions.[183] The USCG avers that allowing the use of e-mail for submissions to the Commission would ensure more timely reporting, ease paperwork burdens, and potentially result in significant cost savings.[184] Maritel adds that the Commission should expand the capabilities of its Universal Licensing System (ULS) to accommodate Part 80-related reports and requests.[185] We agree with the commenters that electronic filing, including e-mail submissions, offer potentially significant efficiency and cost advantages over paper filing, especially now that mailings to the Commission undergo irradiation. The Commission is actively pursuing ways in which to expand electronic filing opportunities, including e-mail submissions, and we will certainly take account of the needs and wishes of the maritime community as we continue this effort. At this time, however, we decline to adopt a Part 80-specific rule for electronic filing because we believe this issue is one of Commission-wide applicability, equally affecting licensees in a number of different services. We note, moreover, that applications[186] for Part 80 licenses may be filed in ULS already, on FCC Form 605.[187] To the extent that commenters or other members of the marine radio community wish to avail themselves of

[180] *See* para. 34, *supra*.

[181] *GMDSS FNPRM*, 17 FCC Rcd at 6788, ¶ 129.

[182] *Id.*

[183] USCG Comments (WT 00-48) at 8; Task Force Comments at 5; Maritel Comments (WT 00-48) at 8.

[184] USCG Comments (WT 00-48) at 8.

[185] Maritel Comments (WT 00-48) at 8.

[186] At present, ULS does not have the capability of processing pleadings, such as petitions to deny, for any of the wireless services. *See* Certain Actions Provided For in the Commission's Rules Are Not Yet Available for Electronic Filing Via the Universal Licensing System (ULS) and Must Be Filed Manually, *Public Notice*, 16 FCC Rcd 12886 (2001).

[187] On March 18, 2003, as part of an ongoing effort to enhance ULS, the Wireless Telecommunications Bureau implemented online filing for ship exemptions. *See* Wireless Telecommunications Bureau Will Implement Online Filing for Ship Exemptions in the Universal Licensing System Beginning March 18, 2003, *Public Notice*, 18 FCC Rcd 4952 (2003).

e-mail submissions of particular types of documents that are neither covered by ULS nor required by rule to be filed in paper with the Office of the Secretary, we suggest they contact appropriate staff of the Wireless Telecommunications Bureau (Bureau) to determine if they can be accommodated through informal arrangements.

M. Tabular Listings of Part 80 Frequencies

48. *Background.* In the *FNPRM*, the Commission questioned whether it should continue the practice of listing carrier frequencies rather than assigned frequencies in the frequency tables in Part 80 of its rules.[188] It noted that, although the carrier frequency is the frequency actually used by a licensee, the assigned frequency, which differs from the carrier frequency when emissions with a suppressed carrier are transmitted, is the frequency identified on the license.[189] Expressing concern that listing carrier frequencies alone may lead to some confusion, the Commission asked commenters to address the relative benefits of listing carrier frequencies, assigned frequencies or both frequencies in the Part 80 tables.[190]

49. *Discussion.* Given that the three commenters addressing this issue propose three very different solutions, we believe that changing the current practice of listing carrier frequencies in the Part 80 tables would probably engender more confusion than maintaining the status quo. The USCG states that both the tables and licenses should include both assigned frequencies and carrier frequencies,[191] while RBAW recommends that we continue to list the carrier frequency because it is more meaningful for most users of SSB radios.[192] Owen Anderson argues that the Commission should list the carrier frequency for SSB voice frequencies but we should list the assigned frequency for SITOR (Simplex Teletype Over Radio) frequencies,[193] inasmuch as this is the way the frequency display table works on most equipment.[194] We agree with RBAW that the Commission should continue to use the carrier frequency in the Part 80 tables. The USCG's preferred approach of listing both frequencies would make the tables cumbersome, and could as easily result in more instances of a licensee using the "wrong" frequency.[195] We also believe it could be more confusing to list carrier frequencies in some tables and assigned frequencies in other tables. Under the current approach, licensees can be sure that the frequency listed is always the carrier frequency.[196] Maintaining the existing practice promotes regulatory stability and avoids any additional confusion that might be engendered among those licensees who might only belatedly become aware of any change in the practice. Importantly, we have no evidence that our current practice has resulted in actual confusion and unauthorized operations to any appreciable degree.[197] Accordingly, we will continue to list carrier frequencies in the Part 80 tables of frequencies.

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[188] *GMDSS FNPRM*, 17 FCC Rcd at 6788, ¶ 130.

[189] *Id.*

[190] *Id.*

[191] USCG Comments (WT 00-48) at 8.

[192] RBAW Comments at 2.

[193] SITOR is another name for narrow-band direct-printing (NBDP), an automated direct printing service.

[194] Owen Anderson Comments at 6.

[195] Owen Anderson also asserts that it would be confusing to list both the carrier and the assigned frequencies. *Id.*

[196] We note, moreover, that our tables very clearly identify the frequencies as carrier frequencies at the top of the relevant column. *See, e.g.*, 47 C.F.R. §§ 80.313, 80.374(b)(2), (c)(2), 80.379(a).

[197] The USCG speaks of "the *potential* for engendering confusion and operation on an authorized frequency." USCG Comments (WT 00-48) at 8 (emphasis added). Although the USCG says the potential for confusion is increasing due to turnover in licensed radio personnel, it also notes that more modern equipment "has somewhat compensated." *Id.*

N. Examination Requirements for GMDSS Operators

50. *Background.* Currently, section 13.203(a)(5) of the Commission's rules provides that the written examination for Commercial Operator Licensing Examination Element 7, GMDSS radio operating practices, is to consist of seventy-six questions.[198] In the *FNPRM*, the Commission proposed to increase the number of questions in the Element 7 examination to 100 because it believed a 100-question examination would provide a better assessment of whether applicants have the necessary breadth of knowledge to qualify as a GMDSS operator.[199] In addition to inviting comment on this proposal, the Commission invited suggestions regarding the appropriate number of questions for the written examination for new Element 7R that will be associated with the restricted GMDSS Radio Operator's License that was established in the *GMDSS R&O*.[200]

51. *Discussion.* Based on the record evidence, we adopt the proposal to expand the Element 7 examination to 100 questions, and specify that the examination for Element 7R shall consist of fifty questions drawn from a 300-question pool. Both of these decisions comport with the consensus view of the commenters.[201] We believe that a 100-question examination is more appropriate than a 76-question examination for Element 7, given the scope and complexity of the GMDSS radio operating procedures. We also note that the Bureau's Public Safety and Private Wireless Division (PSPWD) has already permitted the use of 100-question examinations pursuant to waiver,[202] and our positive experience with such examinations indicates that it will serve the public interest to make the 100-question examination mandatory rather than permissive. We further believe that a fifty-question examination drawn from a pool of 300 questions is appropriate for Element 7R given the more limited authority conveyed by a Restricted GMDSS Radio Operator's License vis-à-vis the (unrestricted) GMDSS Radio Operator's License. In keeping with traditional practice, we will consult closely with the USCG in developing the question pool, and we will announce the availability of the question pool by Public Notice.[203]

O. Cross-references

52. The Commission noted in the *FNPRM* that section 80.1103 of its rules[204] contains cross-references to sections 2.975 and 2.983, both of which were deleted effective October 5, 1998.[205] The

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[198] 47 C.F.R. § 13.203(a)(5).

[199] *GMDSS FNPRM*, 17 FCC Rcd at 6789, ¶ 131.

[200] *Id.* (*citing* GMDSS R&O, 17 FCC Rcd at 6749, ¶ 13). Commenters were also invited to propose language to include in Section 13.203 prescribing the matters to be covered by the Element 7R questions. *Id.* None of the commenters responded to that invitation.

[201] USCG Comments (WT 00-48) at 8 (supporting a 100-question examination for Element 7 and an examination of no less than fifty questions for Element 7R); Task Force Comments at 6 (reiterating its support for a single examination to satisfy both FCC and USCG GMDSS requirements and recommending that the examination for Element 7R consist of fifty questions drawn from a 300-question pool); Owen Anderson Comments at 6 (agreeing that the Element 7 examination should have 100 questions, and observing that the USCG has approved a Restricted GMDSS STCW Model Course which provides for a written examination of fifty questions drawn from a pool of 300 questions).

[202] *See* National Radio Examiners, Request for Waiver of Section 13.203 of the Commission's rules, *Order*, 17 FCC Rcd 50 (2001) (*NRE Waiver Order*). Pursuant to the reorganization of the Wireless Telecommunications Bureau, PSPWD no longer exists, but many of its functions, including oversight of the commercial radio operator license examination rules and procedures, have been assumed by the Public Safety and Critical Infrastructure Division.

[203] *See* 47 C.F.R. § 13.215.

[204] 47 C.F.R. § 80.1103.

[205] *GMDSS FNPRM*, 17 FCC Rcd at 6789, ¶ 132.

Commission requested comment on how best to revise section 80.1103 to reflect the deletion of the two Part 2 rules, and also asked commenters to identify any other rules in Part 80 that may have obsolete or inaccurate cross-references.[206] We received no responsive comments. Accordingly, we amend subparagraphs (b) and (c) of section 80.1103 to remove the references to old sections 2.983 and 2.975, respectively, and to instead require compliance with section 2.1033 (governing applications for certification of equipment)[207] or sections 2.953 and 2.955 (governing requirements for parties seeking authorization of equipment under the verification procedures),[208] as appropriate. We also amend section 80.1061 of the Commission's rules[209] to remove an obsolete reference to deleted section 2.1003, and replace it with a reference to sections 2.925 and 2.926,[210] the current Part 2 rules governing equipment identification. We are unaware of any other obsolete or inaccurate cross-references that need to be addressed.

IV. VHF PUBLIC COAST STATIONS SIXTH REPORT AND ORDER

A. Distress Communications

53. *Background.* Currently, the Commission requires site-based as well as geographic area VPC licensees to maintain a continuous safety watch on VHF Channel 16 unless exempted.[211] Under section 80.303(b), we exempt a VPC licensee if a federal, state, or local government station maintains such a watch over ninety-five percent of the VPC licensee's service area.[212] In the *VPC 4th FNPRM*, the Commission invited comment on proposals by Maritel and the USCG regarding watch requirements for Channel 16, the VHF distress communications channel.[213] Maritel suggested that the Commission amend its regulations to require geographic area VPC licensees to maintain a Channel 16 safety watch only after (1) expiration of the licensee's construction requirement or construction of the licensee's facilities in an area; and (2) the licensee receives written notification from the Coast Guard to maintain a watch.[214] The Commission tentatively concluded that Maritel's first proposed condition was unnecessary because the existing rules require a VPC licensee to maintain a watch during a station's "hours of operation."[215] According to the Commission, the phrase "hours of operation" implied that a licensee is subject to watch requirements only when there is a fully constructed station.[216] The Commission further stated that, given the important safety purposes underlying the Channel 16 watch requirement, it was appropriate to impose on VPC licensees the responsibility to immediately initiate and maintain the watch, rather than to wait for written notification from the Coast Guard. The Commission sought comment on its tentative conclusion

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[206] *Id.*

[207] 47 C.F.R. § 2.1033.

[208] *Id.* §§ 2.953, 2.955

[209] *Id.* § 80.1061.

[210] *Id.* §§ 2.925, 2.926.

[211] *Id.* § 80.303. *See* Request for Waiver of the Requirements in Sections 80.303 and 80.453 of the Rules to Permit Public Coast Station WHU487 to Cease Safety Watch on 156.800 MHz and Serve Mobile Vehicles on Land, *Order*, 9 FCC Rcd 221, 221, ¶ 2 (1994).

[212] 47 C.F.R. § 80.303(b).

[213] *VPC 4th FNPRM*, 17 FCC Rcd at 231-32, ¶¶ 6-8.

[214] *See id.* at 231, ¶ 6.

[215] *Id.* at 231, ¶ 7 (*citing* 47 C.F.R. § 80.303).

[216] *Id.*