

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

In the Matter of	)	
	)	
Amendment of Part 95 of the Commission's Rules	)	WT Docket No. 99-366
to authorize the use of 406.025 MHz for Personal	)	
Locator Beacons (PLB)	)	

**REPORT AND ORDER**

**Adopted:** September 27, 2002

**Released:** October 8, 2002

By the Commission:

**I. INTRODUCTION AND EXECUTIVE SUMMARY**

1. In the *Notice of Proposed Rule Making (Notice)*<sup>1</sup> in this proceeding, the Commission proposed to establish a new Subpart H - Personal Locator Beacons (PLB) under Part 95 of the Commission's Rules, to permit the use of frequency 406.025 MHz for personal locator beacons. In this *Report and Order*, we amend our rules to provide for licensing individual 406 MHz PLBs by rule, require mandatory registration of 406 MHz PLB with the National Oceanic and Atmospheric Administration (NOAA), and require manufacturers of 406 MHz PLBs to comply with the Radio Technical Commission for Maritime Services (RTCM) Recommended Standards for 406 MHz Satellite PLBs. We believe that these rule changes will further the public interest by facilitating the use of radio spectrum to increase the safety of the general public in life-threatening conditions in remote environments after all other means of notifying search and rescue (SAR) responders have been used. In addition, we dismiss as moot requests by ACR Electronics Inc. (ACR) and McMurdo Limited (McMurdo) for waiver of the Commission's Rules to permit the type certification of a new 406 MHz personal emergency position indicating radiobeacon (EPIRB),<sup>2</sup> for the reason that the rule changes we adopt today permit the equipment proposed by ACR and McMurdo.

**II. BACKGROUND**

2. Emergency position indicating radiobeacon stations are used to send distress signals that alert SAR personnel. In the United States such beacons are named emergency locator transmitters (ELTs) when carried on aircraft and EPIRBs when carried on ships. ELTs and EPIRBs transmit distress signals on 121.500 MHz, 243.000 MHz and 406.025 MHz to the COSPAS/SARSAT<sup>3</sup> satellite system. The

<sup>1</sup> See Amendment of Part 95 of the Commission's Rules to authorize the use of 406.025 MHz for Personal Locator Beacons (PLB), *Notice of Proposed Rule Making*, PR Docket No. 99-366, 15 FCC Rcd 949 (2000) (*Notice*).

<sup>2</sup> Letter, dated January 10, 2001, from John Flood, Vice President/Engineering, ACR Electronics Inc., to James Shaffer, Public Safety and Private Wireless Division, Federal Communications Commission, (*ACR Letter*). Request for Waiver of 47 CFR 80.1061, submitted August 23, 2002, from Richard Read, Senior Engineer, McMurdo Limited, (*McMurdo Request*).

<sup>3</sup> "COSPAS" is an acronym for a Russian phrase meaning "space system for search and distress vessels." "SARSAT" is an acronym for "search and rescue satellite-aided tracking."

SARSAT satellites are in low-earth and geostationary orbits, and detect and locate signals from users in distress. The SARSAT satellites relay distress signals from emergency beacons to a network of ground stations and ultimately to the U.S. Mission Control Center (USMCC) operated by NOAA in Suitland, Maryland. The USMCC processes the distress signal and alerts the appropriate search and rescue authorities.<sup>4</sup> EPIRBs and ELTs are designed to transmit distress signals on 121.500 MHz and 243.000 MHz transmit continuous signals that are amplitude modulated with an audio swept tone.<sup>5</sup> In addition to signaling the satellite, these stations also provide distress alerting and guidance (*i.e.*, “homing”) assistance in emergency situations. EPIRBs and ELTs designed to transmit distress signals on 406.025 MHz transmit short, digital signals to provide distress alerting in emergencies, and use 121.500 MHz to provide homing. The 406.025 MHz digital signal contains information on the type of emergency, the country and identification code of the beacon in distress, and other information to facilitate SAR operations. Further, 406 MHz distress signals can be stored on-board COSPAS/SARSAT satellites and then later retransmitted to a ground station, thus eliminating the “blind spots”<sup>6</sup> that exist with the older 121.500 MHz and 243.000 MHz EPIRBs and ELTs.

3. In 1983, at the Mobile World Administrative Radio Conference for the Mobile Services (MOB-83), the frequency 406.025 MHz was allocated for the exclusive use of low-power, earth-to-space emergency position indicating radiobeacons.<sup>7</sup> On August 24, 1988, the Commission adopted rules authorizing the use of this frequency for EPIRBs in the Maritime Radio Services.<sup>8</sup> On May 3, 1993, the Commission also adopted rules authorizing the use of this frequency for ELTs in the Aviation Radio Services.<sup>9</sup> As an integral part of these rule amendments, the Commission adopted technical standards for such radiobeacons.<sup>10</sup> The Commission's experience to date with EPIRBs and ELTs that operate on this frequency has been favorable.<sup>11</sup>

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<sup>4</sup> Land-based distress alerts (*i.e.*, alerts received from locations on land) are distributed to the Air Force Rescue Coordination Center (AFRCC) at Langley Air Force Base, Virginia, which coordinates all inland SAR activities in the continental United States; and maritime distress alerts are distributed to Coast Guard Rescue Coordination Centers, which are set up to cover specific geographic areas.

<sup>5</sup> An audio swept tone assists SAR personnel in locating distress beacons by providing a distinctive aural signal. *See* 47 C.F.R. § 80.1053(7).

<sup>6</sup> “Blind spots” in the current 121.5/243.0 MHz satellite system are a result of radiobeacons transmitting a signal while out of the satellite’s coverage area. The satellite is not able to provide radio coverage to or “see” to every location on earth on an uninterrupted basis. For 406 MHz alerts, if the satellite is in view of a COSPAS/SARSAT ground station when it receives an alert, the satellite sends the data to the ground station in real-time. If the satellite is not in view of a ground station when it receives a 406 MHz alert signal, it stores and retransmits the data to the next ground station that sees that satellite. This provides global coverage for 406 MHz distress signals.

<sup>7</sup> *See* International Radio Regulation No. 2997A.

<sup>8</sup> *See* Amendment of the Maritime Services Rules To Allow Ships To Use 406.025 MHz Emergency Position Radiobeacons for Distress Alerting and Search and Rescue Functions, *Report and Order*, PR Docket No. 86-424, 3 FCC Rcd 5406 (1988).

<sup>9</sup> *See* Amendment of the Aviation Rules (Part 87) to Authorize the Use of the Frequency 406.025 MHz for Emergency Locator Transmitters (ELTs), *Report and Order*, PR Docket No. 92-125, 8 FCC Rcd 3185 (1993).

<sup>10</sup> 47 C.F.R. §§ 80.1061, 87.199.

<sup>11</sup> *See, e.g.*, 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, 5957 ¶ 30 (2000); Amendment of Part 80 of the Commission’s Rules Concerning the General Exemption (continued....)

4. Currently, our Rules do not authorize use of radiobeacons for the purpose of signaling distress in a non-aviation or non-marine emergency. Individuals participating in outdoor activities in remote areas have no personal emergency locator device available for use by the general public. Other countries, such as Canada, Australia, Denmark, France, Germany, Norway, and Russia, have authorized the use of 406 MHz PLBs for this purpose. On June 3, 1993, NOAA, recognizing the potential benefits of applying satellite technology to improving the effectiveness and efficiency of search and rescue operations through the use of 406 PLBs, filed a petition for rulemaking requesting that the Commission amend its Rules to authorize the use of frequency for 406.025 MHz PLBs.<sup>12</sup>

5. While NOAA's petition was pending, the Commission granted the State of Alaska a developmental license to use Canadian-approved PLBs in Alaska.<sup>13</sup> In addition to the developmental license from the Commission, the State of Alaska has a Memorandum of Understanding with the NOAA, the United States Air Force Rescue Coordination Center (AFRCC), the United States Coast Guard's (Coast Guard) North Pacific Rescue Coordination Center, and the Alaska State Troopers, all of which participate in the PLB program. State and Federal agencies, as well as private businesses and individuals utilize the developmental program.<sup>14</sup> It is believed that this developmental program has contributed to the efficient, timely and safe usage of SAR resources in Alaska.<sup>15</sup>

6. On January 18, 2000, the Commission released the *Notice* in this proceeding, proposing to authorize the use of 406 MHz PLBs. Twenty comments and three reply comments were received.<sup>16</sup>

7. With respect to ACR's and McMurdo's requests for waiver, their descriptions of their 406 MHz Personal EPIRB generally meet that of a 406 MHz EPIRB station. *See* 47 C.F.R. § 80.1061. ACR's and McMurdo's 406 MHz Personal EPIRBs are designed to be small, lightweight and be worn on one's person as a personal EPIRB for use when all other means of self rescue are exhausted. While ACR's and McMurdo's 406 MHz Personal EPIRBs are similar to a 406 MHz EPIRB station, they do not meet the RTCM Recommended Standards for 406 MHz EPIRBs in the following areas: strobe light, stability & buoyancy requirements, operating life of the battery, leakage and immersion requirements and survivability of a twenty meter drop into water.<sup>17</sup> Absent a waiver of these standards, ACR's and McMurdo's 406 MHz Personal EPIRBs could not be certified for operation under Part 80 of the Commission's Rules. They do, however, appear to meet the requirements of the RTCM Recommended

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for Large Ocean-going Vessels and Small Passenger Vessels, *Report and Order*, WT Docket No. 93-133, 10 FCC Rcd 12199, 12201 ¶ 12 (1995).

<sup>12</sup> The Commission gave public notice of the filing of NOAA's petition for rulemaking, designating it RM-8267. *See* Public Notice No. 1945 (rel. June 15, 1993).

<sup>13</sup> Letter, dated March 7, 1995, from Walter G. Boswell, Chief, Special Services Branch, Private Radio Bureau, Federal Communications Commission, to Robert A. Larson, State of Alaska.

<sup>14</sup> Letter, dated September 10, 1997, from Colonel Glenn Godfrey, Director, Alaska State Troopers, to Michael J. Regiec, Acting Chief, Licensing and Technical Analysis Branch, Public Safety and Private Wireless Division, Wireless Telecommunications Bureau.

<sup>15</sup> *Id.* at 1.

<sup>16</sup> A list of commenters is provided in Appendix A.

<sup>17</sup> *ACR Letter* at 1 – 2. *McMurdo Request* at 3 – 4.

Standards for 406 MHz Satellite PLBs which allow for a lighter, less robust beacon.<sup>18</sup> On January 24, 2002, we sought comment on ACR's waiver request.<sup>19</sup> Three parties filed comments.<sup>20</sup>

### III. DISCUSSION

8. Most commenters agree that we should authorize 406 MHz PLBs. They state an important benefit of 406 MHz PLBs would be their potential to save lives in distress incidents that occur in remote terrain where terrestrial communications coverage does not exist.<sup>21</sup> Additionally, 406 MHz PLBs could significantly reduce the cost, time and effort expended to locate those in distress in remote locations.<sup>22</sup> Several state agencies oppose the use of 406 MHz PLBs, believing that they could result in an increase in the number of emergency incidents thereby compromising their ability to respond, and that significant costs to SAR programs could be involved in using these beacons.<sup>23</sup> We conclude that it is in the public interest to amend our rules to authorize the use of 406 MHz PLBs by the general public. We do not expect the use of PLBs to create a burden on state agencies because the beacons will enhance their ability to provide SAR services to the public in a more timely and more efficient manner.

#### A. Frequency

9. *Proposal:* In the *Notice*, the Commission proposed to permit the use of 406.025 MHz for PLBs.<sup>24</sup> NOAA and the National Search and Rescue Committee (NSARC) (formerly the Interagency Committee for Search and Rescue (ICSAR)) state that COSPAS/SARSAT has mandated that new 406 MHz beacons type approved after January 1, 2002 shall transmit on 406.028 MHz.<sup>25</sup> They recommend modification of the proposed rule to allow 406 MHz PLBs to transmit on frequencies in the 406.0–406.1 MHz band. Such a change is warranted because new satellite beacon productions may be on frequencies in 3 kHz steps within the 406-406.1 MHz band to prevent saturation of the 406.025 MHz frequency. The Radio Technical Commission for Maritime (RTCM) Services, an industry standards-setting organization,

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<sup>18</sup> ACR and McMurdo's 406 MHz Personal EPIRBs do not meet the RTCM Recommended Standards in the following areas: strobe light, stability & buoyancy requirements, operating life of the battery, leakage and immersion requirements and survivability of a twenty meter drop into water. Thus, a waiver request was previously required to be certified for operation under Part 80 of the Commission's Rules. With adoption of this *Report and Order*, specifically Section 95.1205(a) of the Commission's Rules the technical standards now appear to be consistent with the requirements of the petitioners' devices.

<sup>19</sup> Wireless Telecommunication Bureau Seeks Comment on Request for Waiver by ACR Electronics Inc. for Type Certification of Personal 406 MHz Emergency Position Indicating Radio Beacon (EPIRB), *Public Notice*, 17 FCC Rcd 1500 (2002).

<sup>20</sup> Comments were filed NOAA, Coast Guard and Microwave Monolithics Inc. (Monolithic). No reply comments or *ex parte* submissions were filed in this matter.

<sup>21</sup> National Search and Rescue Committee (NSARC) Comments at 5.

<sup>22</sup> *See, e.g.*, United States Marine Safety Association (USMSA) Comments at 1; Ralston Cunningham Associates (Cunningham) Comments at 1.

<sup>23</sup> *See, e.g.*, Colorado SAR Board Comments at 2; Montana Comments at 1; Nebraska Comments at 1; Colorado OEM Comments at 1.

<sup>24</sup> *Notice*, 15 FCC Rcd at 951 ¶ 5.

<sup>25</sup> NOAA Comments at 1; NSARC Comments at 1; *see* Specifications for COSPAS/SARSAT 406 MHz Distress Beacons, C/S T.001, Issue 3 – Revision 2, Oct. 1998.

states it is revising the RTCM Recommended Standards for 406 MHz Satellite Personal Locator Beacons (PLBs) to reflect the change in frequency from 406.025 MHz to 406.028 MHz.<sup>26</sup>

10. *Decision:* Given the COSPAS/SARSAT mandate, we conclude that our rules should allow PLB operation in the 406.0-406.1 MHz band. This will conform our rules to be consistent with our action in WT Docket No. 00-48 to reflect the frequency reference for 406 MHz EPIRBs as 406.0-406.1 MHz.<sup>27</sup> Additionally, this will allow for the efficient use of the COSPAS/SARSAT system and result in improved rescue efforts. Therefore, we will amend our Rules to reflect the frequency reference to 406 MHz PLBs as 406.0-406.1 MHz.

## B. Licensing

11. *Proposal:* The Commission proposed that individual 406 MHz PLBs should be authorized by rule, *i.e.*, that there should be no individual licensing requirement.<sup>28</sup> It believed that there are millions of potential users due to the proposed broad eligibility and operational provisions for 406 MHz PLBs, and that authorizing by rule would eliminate administrative burdens for both the public and the Commission without having a negative impact on safety or spectrum management.<sup>29</sup> The Commission also sought comment on how a PLB program should be managed to best promote the efficient and controlled use of 406 MHz PLBs.<sup>30</sup> It proposed a state-managed program, under which individual state authorities that desire and are willing to accept responsibility for managing a 406 MHz PLB program would be authorized by the Commission to become PLB program managers.<sup>31</sup> For those states choosing not to be authorized by the Commission or to designate a single point of contact for NOAA for the purpose of receiving distress alerts, the ICSAR recommended that land-based distress alerts (*i.e.*, alerts received from locations on land), including new 406 MHz PLB alerts, continue to be handled under current procedures.<sup>32</sup> Currently, NOAA relays land-based alerts to AFRCC, which relays them to points of contact designated by the states.<sup>33</sup>

12. *Decision:* The National Association for Search and Rescue (NASAR),<sup>34</sup> the United States Marine Safety Association (USMSA),<sup>35</sup> and other commenters<sup>36</sup> support the Commission's proposal to license 406 MHz PLBs by rule. The State of Washington's Department of Transportation, Aviation

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<sup>26</sup> RTCM Comments at 1.

<sup>27</sup> See, Amendment of Parts 13 and 80 of the Commission's Rules Concerning Maritime Communications, *Report and Order*, WT Docket No. 00-48, 17 FCC Rcd 6741 ¶ 85 (2000).

<sup>28</sup> *Notice*, 15 FCC Rcd at 952 ¶ 8.

<sup>29</sup> *Id.*

<sup>30</sup> *Id.*

<sup>31</sup> *Id.* at 952 ¶¶ 7-8.

<sup>32</sup> *Id.*

<sup>33</sup> *Id.* at 952 ¶ 7.

<sup>34</sup> NASAR Comments at 1.

<sup>35</sup> USMSA Comments at 2.

<sup>36</sup> See, *e.g.*, ACR Electronics Inc. (ACR) Comments at 1; Monolithics Reply Comments at 1.

Division (Washington Aviation Division) opposes the authorization of 406 MHz PLBs to the general public without very strong safeguards against their use in non-distress situations.<sup>37</sup> It recommends a five hundred percent excise tax on 406 MHz PLBs at the time of manufacture or import, with funds placed in a SAR account administered by AFRCC.<sup>38</sup> Most commenters do not believe that such measures, beyond the enforcement tools already available (including such actions as letters of inquiry, investigations, letters of admonishment/warning, notices of violation, imposing penalties, and accessing monetary forfeitures), are necessary.<sup>39</sup> Some predict that the number of 406 MHz PLB users will not be large enough for false alerts (*i.e.*, non-distress alerts) to become a significant problem. Additionally, consumer use of 406 MHz PLBs does not raise concerns related to responding to E911 emergency calls made from limited-capability, noninitialized mobile phones, such as "911-only" phones that are not equipped to receive calls because of the unique identification code associated with 406 MHz PLBs.<sup>40</sup> The 406 MHz PLBs will be required to have an identification code programmed in each PLB unit to establish a unique identification for each PLB station. This number is required to be registered, along with user information (*e.g.* address, emergency phone number) in a NOAA maintained database. The incidents of 406 MHz PLB false alerts will be further mitigated by the requirement in the RTCM standards for 406 MHz PLBs to have not less than two independent means for manual activation<sup>41</sup>. The several commenters who believe current safeguards and enforcement tools are adequate also argue that because the availability of other alternatives such as wireless phones, because of the limitations of the 406 MHz PLB as a communications device,<sup>42</sup> and because of the expected high cost of 406 MHz PLBs due to the proposed technical requirements and a requirement for the beacon's battery to have a service life of five years, the number of potential users will be kept low.<sup>43</sup> We agree with the majority of commenters, and will adopt the proposal to license 406 MHz PLBs by rule.

13. Many commenters agree, based on the Alaskan experience, that the 406 MHz PLB program should be managed by the individual states that need and are prepared to implement it.<sup>44</sup> NOAA concurs in principle with the proposal to allow individual states to choose to be licensed by the FCC, and notes that a separate agreement with NOAA may not be necessary for each state. NOAA recommends that a general agreement, with provisions for states to accede to the agreement, may be sufficient. NOAA

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<sup>37</sup> Washington Aviation Division Comments at 1.

<sup>38</sup> *Id.* at 2; *see also* NSARC Comments at 4 (unrestricted use of 406 MHz PLBs could result in a large number of users and negatively impact SAR response systems).

<sup>39</sup> *See, e.g.*, Washington Emergency Management Division (Washington EMD) Comments at 1; NASAR Comments at 1; ACR Comments at 1.

<sup>40</sup> Unlike non-initialized mobile phones, 406 MHz PLBs have a unique identification code transmitted with the distress signal which, when registered with NOAA will provide user information to aid in the search and rescue of the individual. Thus, 406 MHz PLBs do not share the concerns about responding to emergency 911 calls. *See* Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, 17 FCC Rcd 8481.

<sup>41</sup> Version 1.1, RTCM Paper 76-2002/SC110-STD at 2-15.

<sup>42</sup> NOAA Comments at 2; *see also* NSARC Comments at 5 (the development of two-way communications technologies will eventually make 406 MHz PLBs obsolete as a primary means of alerting).

<sup>43</sup> Monolithics Reply Comments at 1.

<sup>44</sup> *See, e.g.*, NSARC Comments at 3; Oregon State Dept. of Police Comments at 2; Douglas County, Oregon Emergency Management Agency (Douglas County) Comments at 1.

recommends that state authorities be responsible for ensuring necessary distress assistance is available.<sup>45</sup> Other commenters suggest that existing state agreements with AFRCC should be used, and new agreements are unnecessary.<sup>46</sup>

14. AFRCC, which has responsibility for inland SAR, initially stated that 406 MHz PLB alerts are missing person incidents and are the responsibility of local sheriff or state emergency management agencies, so NOAA should send such alerts directly to the applicable responsible state or local agency.<sup>47</sup> AFRCC indicated that its designation as a central point of contact for 406 MHz PLBs would degrade its ability to conduct inland SAR and that it should not receive or act on 406 MHz PLB alerts.<sup>48</sup> In a subsequent filing, however, AFRCC concurred with the procedures described in the *Notice* for alerts relayed by NOAA, which are that with prior coordination and mutual agreement, land-based alerts are relayed by the AFRCC to points of contact designated by the various states.<sup>49</sup> AFRCC requests that the 406 MHz PLBs rules become effective on or about July 1, 2003, which would allow AFRCC, NOAA and state agencies time to coordinate the transfer of distress alerts to responsible state agencies.<sup>50</sup>

15. We agree with commenters that the states need a single point of contact for receiving and coordinating the responses to distress alerts.<sup>51</sup> AFRCC has agreed to coordinate this effort. We are amending our Rules, effective on July 1, 2003, to facilitate this coordination.

### C. Mandatory Registration

16. *Proposal:* Currently, NOAA administers and maintains a database for 406 MHz EPIRBs and ELTs, which contains more than 50,000 unique identification codes and registration information for these beacons.<sup>52</sup> The Commission proposed to require beacon owners to register 406 MHz PLBs with NOAA.<sup>53</sup> It also proposed to require manufacturers to program each 406 MHz PLB with a unique code and to provide on each 406 MHz PLB a plate or label containing the registration instructions; and to include with each marketed 406 MHz PLB a pre-addressed postcard soliciting the name, address, telephone number, and identification code of the owner for registration in NOAA's database.<sup>54</sup> These requirements currently apply to manufacturers of EPIRBs and ELTs.<sup>55</sup>

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<sup>45</sup> NOAA Comments at 2.

<sup>46</sup> Cunningham Comments at 2; Monolithic Reply Comments at 1.

<sup>47</sup> AFRCC Comments at 1.

<sup>48</sup> *Id.*

<sup>49</sup> AFRCC Further Comments at 1.

<sup>50</sup> *Id.*

<sup>51</sup> *See* USMSA Comments at 2.

<sup>52</sup> *Notice*, 15 FCC Rcd at 953 ¶ 9.

<sup>53</sup> *Id.*

<sup>54</sup> *Id.*

<sup>55</sup> *See* 47 C.F.R. §§ 80.1061(e)-(f), 87.199(e)-(f). We note that NOAA has changed the location of its EPIRB and ELT registration operations. We take this opportunity to update 47 C.F.R. §§ 80.1061(e)-(f), 87.199(e)-(f) to reflect NOAA's new address.

17. *Decision:* Because mandatory registration will help government SAR operations to work better and cost less, we are amending the rules to require mandatory registration, as proposed.<sup>56</sup> No commenter opposed mandatory registration or requiring that each 406 MHz PLB be programmed with a unique code. Commenters disagree, however, on whether registration should be accomplished on the same basis as it is for EPIRBs and ELTs,<sup>57</sup> or accomplished by requiring point-of-sale registration.<sup>58</sup> We perceive potential drawbacks to point-of-sale registration. For example, a retailer could sell the beacons world-wide through mail order and the seller would not have immediate access to registration information. Additionally, buyers may purchase PLBs as gifts and not have needed registration information. Requiring registration at the time of purchase would misplace the responsibility for registration on the vendors and retailers instead of on the owner of the PLB. We believe that the current registration method works adequately, and we have no reason to expect it to work less well for PLBs than it does for EPIRBs and ELTs.<sup>59</sup> Therefore, we are not amending the rules to require registration at the point of sale.

18. With respect to the issue of how to treat rented PLBs, NASAR and the Washington Emergency Management Division recommend a requirement that businesses renting 406 MHz PLBs make available to NOAA the information on individuals renting beacons.<sup>60</sup> We agree that businesses renting 406 MHz PLBs should be required to make available the emergency contact information on individuals renting beacons, but realize that reporting frequent changes in user information to NOAA could be an administrative burden on the businesses and NOAA. Therefore, we will require that 406 MHz PLBs that are rented be registered to the business rather than to the renter. The business will provide a twenty-four hour point of contact that is able to help in identifying the nature of the activation and the individual's identification so that SAR personnel will be able to respond quickly to the distress alerts. The Coast Guard uses similar procedure for 406 MHz EPIRBs that are rented by businesses.

#### **D. Equipment Authorization**

19. *Proposal:* The Commission proposed<sup>61</sup> that 406 MHz PLBs be required to comply with the technical standards in the Radio Technical Commission for Maritime (RTCM) Service document entitled RTCM Recommended Standards for 406 MHz Satellite Personal Locator Beacons (PLBs),<sup>62</sup> and

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<sup>56</sup> This information collection has been approved by the Office of Management and Budget, Control No. 3060-0916.

<sup>57</sup> NOAA Comments at 2.

<sup>58</sup> Douglas County Comments at 1; Oregon State Dept. of Police Comments at 2; and ACR Comments at 1. Point of sale registration would require that before a 406 MHz PLB can be purchased, the owner must provide a completed registration card to the seller, both retail and mail vendors, who would then send the registration information to NOAA.

<sup>59</sup> If the owner fails to register, NOAA will still receive a distress alert signal which will contain a unique identification code and an accurate location (2 to 5 km). The registration information allows authorities to attempt to contact the PLB registrant to verify an emergency exists before initiating a rescue.

<sup>60</sup> Washington EMD Comments at 1; NASAR Comments at 1.

<sup>61</sup> Notice, 15 FCC Rcd at 953 ¶ 10.

<sup>62</sup> Version 1.1, RTCM Paper 76-2002/SC110-STD.



to incorporate the RTCM technical standards by reference in Part 95 of our Rules.<sup>63</sup> It also sought comment on applicable international requirements not covered in RTCM's technical standards; and asked whether 406 MHz PLBs capable of operating on 406.025 MHz should be certified as meeting COSPAS/SARSAT standards by an independent laboratory as is required for 406.025 MHz EPIRBs, or whether the Commission's certification process is sufficient.<sup>64</sup>

20. *Decision:* As supported by the majority of commenters, we are amending our Rules to require 406 MHz PLBs to comply with the technical standards in the RTCM Recommended Standards for 406 MHz Satellite Personal Locator Beacons, and requiring certification by a COSPAS/SARSAT laboratory and an independent laboratory.<sup>65</sup> We disagree with the view of Monolithics that the COSPAS/SARSAT certification and approval alone is sufficient.<sup>66</sup> COSPAS/SARSAT ensures only that 406 MHz PLBs are compatible with the COSPAS/SARSAT satellite system. The RTCM document provides minimum requirements for the functional and technical performance of 406 MHz PLBs, which go beyond the COSPAS/SARSAT specifications. RTCM states that it is in the process of revising the RTCM Recommended Standards for 406 MHz Satellite Personal Locator Beacons (PLBs), which will include the latest update of the technical standards for beacons used in the COSPAS/SARSAT system. The revisions consist of minor corrections and clarifications, changes in beacon messages containing location information, and a change in the 406 MHz PLB transmitting frequency.<sup>67</sup>

21. The National Telecommunications and Information Administration (NTIA) reviewed the proposal and has no objections to permitting 406 MHz PLBs to operate on 121.5 MHz for “homing” purposes, provided that our Rules include conditions that 1) limit transmitter power on 121.5 MHz to no more than twenty-five milliwatts; 2) the transmitter signal include a unique identifier, specifically Morse code “P”; and 3) the 406 MHz PLB is returned to the manufacturer or authorized factory service center for an operational checkout after an activation.<sup>68</sup> We will incorporate NTIA’s first two conditions into our rules. We do not believe, however, that it is necessary to require that the 406 MHz PLB be returned to the manufacturer or authorized factory service center for an operational checkout after any activation. There are no such requirements for 406 MHz EPIRBs or ELTS. We believe that the compliance with RTCM technical standards, certification by a COSPAS/SARSAT laboratory and an independent laboratory, and the NOAA registration database, is sufficient to ensure proper operation of the beacon.

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<sup>63</sup> The Technical Standards are available in the Commission's docket file in this proceeding or may be purchased from the Commission's copy contractor, Qualex International, Portals II, 445 12th Street, S.W., Room CY-B402, Washington, D.C. 20554, tel. 202-863-2893. The Commission must obtain authorization from the Director of the Federal Register prior to incorporating by reference the technical standards in Part 95 of our rules. *See* 1 C.F.R. Part 51.

<sup>64</sup> *Notice*, 15 FCC Rcd at 953-54 ¶ 10.

<sup>65</sup> USMSA Comments at ¶ 10; ACR Comments at 1; NOAA Comments at 2; NSARC Comments at 4; Washington EMD Comments at 1.

<sup>66</sup> Monolithics Reply Comments at 1-2.

<sup>67</sup> RTCM Comments at 1. *See supra*, ¶ 6.

<sup>68</sup> *See* Letter, dated September 7, 2000, from William T. Hatch, Associate Administrator for Spectrum Management, NTIA, to Dale Hatfield, Chief, Office of Engineering and Technology, Federal Communications Commission.

## E. Other Issues

22. The Personal Radio Steering Group (PRSG) recommends that Global Positioning System (GPS)<sup>69</sup> information be incorporated into the data message transmitted by the beacon to assist SAR personnel and distinguish areas where resources other than conventional SAR agencies would be a more logical choice as a responder.<sup>70</sup> We will permit, but not require, GPS to be incorporated into the PLB signal. This is consistent with what the RTCM Recommended Standards for 406 MHz Satellite Personal Locator Beacons already provide.<sup>71</sup>

23. The Region-20 821 MHz Public Safety Regional Plan Review Committee (Region-20)<sup>72</sup> believes SAR responders require the ability to communicate directly with individuals in distress, and requests that we authorize the frequency 406.025 MHz for PLBs and that the 1750-1800 kHz band<sup>73</sup> be allocated to a new Personal Emergency Communications Service to be proposed under a new Subpart I Part 95 or under Part 99.<sup>74</sup> The PRSG agrees with Region-20 that two-way communications are needed but questions the appropriateness of the 1750-1800 kHz band. PRSG suggests a frequency closer to 406.025 MHz, with the 406 MHz PLB transmitting voice communications on one frequency and receiving on a second frequency. PRSG also suggests that existing two-way communications alternatives such as Citizens Band and Family Radio Service be considered.<sup>75</sup> The *Notice* did not discuss whether 406 MHz PLBs should include the ability to communicate directly with individuals in distress, nor do the RTCM standards provide technical specifications for two-way communications. Besides PRSG, no other commenter addressed adding two-way communications capability to 406 MHz PLBs. We believe that the issue of allocating additional frequencies for two-way communications is outside the scope of this proceeding and, therefore, we are not amending our rules to require such communications.<sup>76</sup>

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<sup>69</sup> GPS is a satellite-based global navigation system originally developed by the U.S. Department of Defense to enhance the effectiveness of U.S. military forces. Over the years, GPS also has been used in civilian applications requiring precise location information (*e.g.*, mapping, surveying, and navigation). The GPS consists of twenty-four satellites, with the orbits of these satellites designed so that multiple satellites are passing over any given spot on the earth's surface at any given time. Each satellite transmits a time-coded signal. A GPS receiver then uses data from multiple satellites to rapidly calculate the location, altitude, and velocity of a vehicle or aircraft carrying the receiver.

<sup>70</sup> PRSG Comments at 2.

<sup>71</sup> Version 1.1, RTCM Paper 76-2002/SC110-STD at 2-13 – 2-14.

<sup>72</sup> Region-20 is a regional public safety planning committee created to develop regional plans tailored to the particular communications needs of Public Safety users in Region 20, which includes District of Columbia, Maryland, and Northern Virginia.

<sup>73</sup> This band is currently allocated to the International Fixed Public (Part 23), Maritime and Private Land Mobile Radio Services. *See* 47 C.F.R. §§ 2.106, 23.20, 80.353 (radiotelegraphy), 90.103 (radiolocation).

<sup>74</sup> Region-20 Comments at 14

<sup>75</sup> PRSG Comments at 3.

<sup>76</sup> Contrary to the suggestion of Region-20, we believe it premature to initiate a rulemaking proceeding on the matter. However, we reserve discretion to revisit the issue after we and the SAR community gain experience regarding the use of 406 MHz PLBs.

24. Finally, we note that on January 20, 2001, ACR filed a request for waiver of Section 80.1061 of the Commission's Rules<sup>77</sup> to permit type certification of an EPIRB meant to be carried on one's person, rather than stowed on board a ship. Additionally, on August 23, 2002, McMurdo filed a similar request for waiver of Section 80.1061 of the Commission's Rules. As a consequence of being smaller and lighter than standard EPIRBs, ACR's and McMurdo's personal EPIRBs do not conform to all of the technical requirements for a 406 MHz EPIRB.<sup>78</sup> However, from the information before us, it appears that ACR's and McMurdo's personal EPIRBs do conform to the technical requirements we adopt today for 406 MHz PLBs.<sup>79</sup> Therefore, we dismiss as moot ACR's and McMurdo's waiver request.<sup>80</sup>

#### IV. CONCLUSION

25. The 406 MHz PLB is primarily intended to provide a distress and alerting capacity for use by the general public in life-threatening situations in a remote environment after all other means of notifying SAR responders (*e.g.*, telephone, radio) have been exhausted. Accordingly, we are amending our Rules to establish a new Subpart H - Personal Locator Beacons (PLB) under Part 95 of the Commission Rules to permit the use of 406.025 MHz and 406.028 MHz for personal locator beacons.<sup>81</sup> Further, we have proposed to license individual 406 MHz PLBs by rule and require registration of 406 MHz PLB with NOAA. We believe that these rules will further the public interest by facilitating the use of radio spectrum to increase safety of the general public.

#### V. PROCEDURAL MATTERS

##### Final Regulatory Flexibility Analysis

26. A Final Regulatory Flexibility Analysis is included in Appendix B.

##### Further Information

27. For further information concerning the Report and Order, contact James Shaffer via phone at (202) 418-0680, via email at [jshaffer@fcc.gov](mailto:jshaffer@fcc.gov), via TTY (202) 418-7233, Wireless Telecommunications Bureau, Federal Communications Commission, Washington, D.C. 20554.

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<sup>77</sup> 47 C.F.R. § 80.1061.

<sup>78</sup> *See id.*

<sup>79</sup> ACR states that its personal EPIRB has been previously type accepted in Canada as a PLB, and that it meets the RTCM Recommended Standards for 406 MHz Satellite PLBs.

<sup>80</sup> *See, e.g.*, Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, *Fourth Report and Order*, CC Docket No. 94-102, 15 FCC Rcd 25216, 25219-20 ¶ 11 (2000); Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services, *Third Report and Order and Memorandum Opinion and Order*, CC Docket No. 92-297, 15 FCC Rcd 11857, 11872 ¶ 36 (2000).

<sup>81</sup> COSPAS/SARSAT has mandated that 406 MHz beacons type approved after January 1, 2002 shall transmit on 406.028 MHz in order to prevent saturation on the 406.025 MHz frequency. In the future, additional frequencies could be made available in 3 kHz steps within the 406-406.1 MHz band. We believe that authorizing the 406-406.1 MHz band is more efficient, because it avoids the need to revise the rules each time COSPAS/SARSAT adds a frequency.

**Alternative Formats**

28. Alternative formats (computer diskette, large print, audio cassette and Braille) of this *Report and Order* are available to persons with disabilities by contacting Brian Millin at (202) 418-0260, TTY (202) 418-2555, or at [bmillin@fcc.gov](mailto:bmillin@fcc.gov). This *Report and Order* can also be downloaded at <http://www.fcc.gov/dtf/>.

**VI. ORDERING CLAUSES**

29. Accordingly, IT IS ORDERED, pursuant to the authority of Sections 4(i), 303(r), and 332(a)(2) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r), 332(a)(2), Parts 80, 87 and 95 of the Commission's Rules, that 47 C.F.R. Parts 80, 87 and 95 ARE AMENDED as set forth in the attached Appendix C.

30. IT IS FURTHER ORDERED that the rule changes adopted herein for 47 C.F.R. Parts 80 and 87 will become effective [thirty days after publication in the Federal Register]. The rule changes adopted herein for 47 C.F.R. Part 95 will become effective on July 1, 2003.

31. IT IS FURTHER ORDERED that the Commission's Reference Information Center, Consumer Information Bureau, SHALL SEND a copy of this *Report and Order*, WT Docket No. 99-366, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

32. IT IS FURTHER ORDERED that, pursuant to Section 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), and Section 1.925 of the Commission's Rules, 47 C.F.R. § 1.925, ACR's request for waiver of Section 80.1061 of the Commission's Rules, 47 C.F.R. §§ 80.1061, filed on January 10, 2001, and McMurdo's request for waiver of Section 80.1061 of the Commission's Rules, 47 C.F.R. §§ 80.1061, filed on August 23, 2002, to permit type certification of ACR's personal EPIRB, FCC Identification Number B66ACR-PLB-100, and McMurdo's personal EPRIB, FCC Identification Number KLS85860, respectively, ARE DISMISSED AS MOOT.

33. IT IS FURTHER ORDERED, pursuant to Section 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), that this proceeding IS TERMINATED.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch  
Secretary

**APPENDIX A****LIST OF COMMENTERS**

ACR Electronics, Inc. (ACR)  
Colorado Office of Emergency Management (COEM)  
Colorado Search and Rescue Board (Colorado SAR Board)  
Department of the Air Force, Air Force Rescue Coordination Center (AFRCC)  
Douglas County Emergency Management Agency, State of Oregon (Douglas County)  
Gwin, Thomas K.  
Montana Department of Transportation (Montana)  
National Association for Search and Rescue (NASAR)  
National Oceanic and Atmospheric Administration (NOAA)  
National Search and Rescue Committee (NSARC)  
National Telecommunications and Information Administration (NTIA)  
Oregon State Department of State Police  
Personal Radio Steering Group (PRSG)  
Radio Technical Commission for Maritime Services (RTCM)  
Ralston Cunningham Associates (Cunningham)  
Region-20 821 MHz Public Safety Regional Plan Review (Region-20)  
State of Nebraska (Nebraska)  
United States Marine Safety Association (USMSA)  
Washington State Department of Transportation, Aviation Division (Washington Aviation Division)  
Washington State Emergency Management Division (Washington EMD)

**LIST OF REPLY COMMENTERS**

California Public-Safety Radio Association  
Microwave Monolithics Inc. (Monolithics)  
Region-20 821 MHz Public Safety Regional Plan Review (Region-20)

**APPENDIX B****FINAL REGULATORY FLEXIBILITY ANALYSIS (FRFA)**

As required by the Regulatory Flexibility Act (RFA),<sup>82</sup> an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Notice* prepared in this proceeding.<sup>83</sup> The Commission sought written public comment on the proposals in the *Notice*, including comments on the IRFA. This present FRFA conforms to the RFA.<sup>84</sup>

**A. Need for, and Objectives of, the Report and Order:**

1. In this proceeding, we amend Part 95 of the Commission's Rules to authorize the use of the frequency 406 MHz for personal locator beacons (PLBs) to provide individuals in remote areas a means to alert others of an emergency situation and help search and rescue personnel locate those in distress.

**B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA:**

2. No comments were submitted specifically in response to the IRFA.

**C. Description and Estimate of the Number of Small Entities to Which the Adopted Rules Will Apply:**

3. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.<sup>85</sup> The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."<sup>86</sup> In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.<sup>87</sup> A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).<sup>88</sup> A small organization is generally "any not-for-profit enterprise which is independently owned

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<sup>82</sup>See 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601 *et seq.*, has been amended by the Contract with America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

<sup>83</sup>See Amendment of Part 95 of the Commission's Rules to authorize the use of 406.025 MHz for Personal Locator Beacons (PLB), *Notice of Proposed Rule Making*, WT Docket No. 99-366, 15 FCC Rcd 949 (2000) (*Notice*).

<sup>84</sup> See 5 U.S.C. § 604.

<sup>85</sup> 5 U.S.C. § 603(b)(3).

<sup>86</sup> 5 U.S.C. § 601(6).

<sup>87</sup> 5 U.S.C. 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. 632). Pursuant to the RFA, the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register." 5 U.S.C. § 601(3).

<sup>88</sup> Small Business Act, 15 U.S.C. § 632 (1996).

and operated and is not dominant in its field.<sup>89</sup> The adopted rules would apply to small businesses that manufacturer, design, import, sell, rent, or use radiobeacon equipment designed for distress alerting and location. PLBs will be used to provide a distress and alerting capacity for use by the general public in a life-threatening condition in a remote environment after all other means of notifying search and rescue responders have been used. These beacons will be manufactured, designed, imported and sold by companies of all sizes operating in the U.S. We concluded that these small businesses are classified in Communications Equipment, N.E.C., (Standard Identification Code 3669) as entities employing less than 750 employees as defined in 13 C.F.R. § 121.201. The size data provided by the SBA shows that 469 firms out of 498 firms in the Communications Equipment, NEC classification have less than 750 employees but did not enable us to make a meaningful estimate of the number of potential manufacturers which are small businesses.<sup>90</sup> No comments were received on the number of small businesses which could be impacted by the proposed rule changes.

#### **D. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements:**

4. This proceeding contains a reporting requirement to require businesses renting and owners of 406 MHz Personal Locator Beacons (PLBs) to register information such as name, address, type of vessel with the National Oceanic and Atmospheric Administration (NOAA). The information would be used by search and rescue personnel to identify the persons in distress and to select the proper rescue units and search methods.

#### **E. Steps Taken to Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered:**

5. The Commission in this proceeding has considered comments on making frequency spectrum available to authorize the use of personal locator beacons. It has adopted alternatives which minimize burdens placed on small entities. The adopted rules will have a beneficial economic impact on small business entities that manufacturer, design, import, sell, or use radiobeacon equipment designed for distress alerting and location. This approach promotes technological innovations in radiobeacon equipment. This approach will allow the states to help manage its terrestrial search and rescue resources and assure that these radiobeacons will operate properly thus enhancing protection of life and property.

6. To minimize any negative impact on search and rescue responders receiving distress alerts, we have offered the option of utilizing the existing procedures. These procedures are that with prior coordination and mutual agreement, land-based alerts will be relayed by the United States Air Force Rescue Coordination Center to a point of contact designated by the state. In addition, the Commission declined to require businesses renting PLBs to the public to notify NOAA each time a beacon is rented; instead, such business must register once with NOAA and provide a 24-hour point of contact.

**F. Report to Congress:** The Commission will send a copy of the *Report and Order*, including this FRFA, in a report to be sent to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996, *see* 5 U.S.C. § 801(a)(1)(A). In addition, the Commission will send a copy of the *Report and Order*, including this FRFA to the Chief Counsel for Advocacy of the Small Business Administration. A copy of the *Report and Order* and FRFA (or summaries thereof) will also be published in the Federal Register. *See* 5 U.S.C. § 604(b).

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<sup>89</sup> 5 U.S.C. § 601(4).

<sup>90</sup> U.S. Small Business Administration 1992 Economic Census Industry and Enterprise Report, Table 1D, SIC Code 3669, (Bureau of the Census data adapted by the Office of Advocacy of the U.S. Small Business Administration).

## APPENDIX C

## FINAL RULE

Parts 80, 87 and 95 of Chapter 1 of Title 47 of the Code of Federal Regulations is amended as follows:

## I. PART 80 - STATIONS IN THE MARITIME SERVICES

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

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

2. Section 80.1061 is amended to revise paragraphs (e) and (f) to read as follows:

**§ 80.1061 Special requirements for 406.025 MHz EPIRBs.**

\* \* \* \* \*

(e) An identification code, issued by the National Oceanic and Atmospheric Administration (NOAA), the United States Program Manager for the 406.025 MHz COSPAS/SARSAT satellite system, must be programmed in each EPIRB unit to establish a unique identification for each EPIRB station. With each marketable EPIRB unit, the manufacturer or grantee must include a postage pre-paid registration card printed with the EPIRB identification code addressed to: SARSAT Beacon Registration, NOAA, NESDIS, E/SP3, RM 3320, FB-4, 5200 Auth Road, Suitland, MD 20746-4304. The registration card must request the owner's name, address, telephone number, type of ship, alternate emergency contact and include the following statement: "WARNING--failure to register this EPIRB with NOAA before installation could result in a monetary forfeiture being issued to the owner."

(f) To enhance protection of life and property, it is mandatory that each 406.025 MHz EPIRB be registered with NOAA before installation and that information be kept up-to-date. Therefore, in addition to the identification plate or label requirements contained in Secs. 2.925, and 2.926 of this chapter, each 406.025 MHz EPIRB must be provided on the outside with a clearly discernable permanent plate or label containing the following statement: "The owner of this 406.025 MHz EPIRB must register the NOAA identification code contained on this label with the National Oceanic and Atmospheric Administration (NOAA), whose address is: SARSAT Beacon Registration, NOAA, NESDIS, E/SP3, RM 3320, FB-4, 5200 Auth Road, Suitland, MD 20746-4304." Vessel owners shall advise NOAA in writing upon change of vessel or EPIRB ownership, transfer of EPIRB to another vessel, or any other change in registration information. NOAA will provide registrants with proof of registration and change of registration postcards.

\* \* \* \* \*

## II. Part 87 - AVIATION SERVICES

3. The authority citation for Part 87 continues to read as follows:

**AUTHORITY:** 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303, 307(e) unless otherwise noted. Interpret or apply 48 Stat. 1064-1068, 1081-1105, as amended; 47 U.S.C. 151-156, 301-609.



4. Section 87.199 is amended to revise paragraphs (e) and (f) to read as follows:

**§ 87.199 Special requirements for 406.025 MHz ELTs.**

\* \* \* \* \*

(e) An identification code, issued by the National Oceanic and Atmospheric Administration (NOAA), the United States Program Manager for the 406.025 MHz COSPAS/SARSAT satellite system, must be programmed in each ELT unit to establish a unique identification for each ELT station. With each marketable ELT unit the manufacturer or grantee must include a postage pre-paid registration card printed with the ELT identification code addressed to: SARSAT Beacon Registration, NOAA, NESDIS, E/SP3, RM 3320, FB-4, 5200 Auth Road, Suitland, MD 20746-4304. The registration card must request the owner's name, address, telephone number, type of aircraft, alternate emergency contact and include the following statement: "WARNING--failure to register this ELT with NOAA before installation could result in a monetary forfeiture being issued to the owner."

(f) To enhance protection of life and property, it is mandatory that each 406.025 MHz ELT must be registered with NOAA before installation and that information be kept up-to-date. In addition to the identification plate or label requirements contained in Secs. 2.925 and 2.926 of this chapter, each 406.025 MHz ELT must be provided on the outside with a clearly discernable permanent plate or label containing the following statement: "The owner of this 406.025 MHz ELT must register the NOAA identification code contained on this label with the National Oceanic and Atmospheric Administration (NOAA), whose address is: SARSAT Beacon Registration, NOAA, NESDIS, E/SP3, RM 3320, FB-4, 5200 Auth Road, Suitland, MD 20746-4304." Aircraft owners shall advise NOAA in writing upon change of aircraft or ELT ownership, or any other change in registration information. Fleet operators must notify NOAA upon transfer of ELT to another aircraft outside of the owner's control, or an other change in registration information. NOAA will provide registrants with proof of registration and change of registration postcards

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**III. Part 95 - PERSONAL RADIO SERVICES**

1. The authority citation for Part 95 continues to read as follows:

**AUTHORITY: Secs. 4, 303, 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303.**

2. New Subpart H is added to read as follows:

**Subpart H - Personal Locator Beacons (PLB).**

§ 95.1201 Basis and purpose.

§ 95.1203 Frequency

§ 95.1205 Special requirements for 406 MHz PLBs.

**Subpart H Personal Locator Beacons (PLB).**

**§ 95.1201 Basis and purpose.**

The rules in this subpart are intended to provide individuals in remote areas a means to alert others of an emergency situation and to aid search and rescue personnel locate those in distress. The effective date for the rules in this subpart will be July 1, 2003.

**§ 95.1203 Frequency.**

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

**§ 95.1205 Special requirements for 406 MHz PLBs.**

(a) All 406 MHz PLBs must meet all the technical and performance standards contained in the Radio Technical Commission for Maritime (RTCM) Service document "RTCM Recommended Standards for 406 MHz Satellite Personal Locator Beacons (PLBs)," Version 1.1, RTCM Paper 76-2002/SC110-STD, dated June 19, 2002. This RTCM document is incorporated by reference in accordance with 5 U.S.C. 552(a), and 1 CFR Part 51. Copies of the document are available and may be obtained from the Radio Technical Commission for Maritime Services, 1800 Diagonal Road, Suite 600, Alexandria, Virginia 22314-2840. The document is available for inspection at Commission headquarters at 445 12th Street, Washington, D.C. 20554. Copies may also be inspected at the Office of the Federal Register, 800 North Capital Street N.W., Suite 700, Washington, DC.

(b) The 406 MHz PLB must contain, as an integral part, a homing beacon operating only on 121.500 MHz and meeting all requirements described in the RTCM Recommended Standards document described in paragraph (a) of this section. The 121.500 MHz homing beacon must have a continuous duty cycle that can be interrupted only during the transmission of the 406 MHz signal. The 406 MHz PLB shall transmit a unique identifier (Morse code "P") on the 121.500 MHz signals.

(c) Before a 406 MHz PLB certification application is submitted to the Commission, the applicant must have obtained certification from a test facility, recognized by one of the COSPAS/SARSAT Partners, that the PLB satisfies the standards contained in the COSPAS/SARSAT document COSPAS/SARSAT 406 MHz Distress Beacon Type Approval Standard (C/S T.007). Additionally, an independent test facility must certify that the PLB complies with the electrical and environmental standards associated with the RTCM Recommended Standards.

(d) The procedures of Notification by the equipment manufacturer and Certification from either the Commission or designated Telecommunications Certification Body are contained in Subpart J of Part 2 of this chapter.

(e) An identification code, issued by the National Oceanic and Atmospheric Administration (NOAA), the United States Program Manager for the 406 MHz COSPAS/SARSAT satellite system, must be programmed in each PLB unit to establish a unique identification for each PLB station. With each marketable PLB unit, the manufacturer or grantee must include a postage pre-paid registration card printed with the PLB identification code addressed to: SARSAT Beacon Registration, NOAA, NESDIS, E/SP3, Room 3320, FB-4, 5200 Auth Road, Suitland, Maryland 20746-4303. The registration card must request the owner's name, address, telephone number, alternate emergency contact and include the following statement: "WARNING—failure to register this PLB with NOAA could result in a monetary forfeiture order being issued to the owner."

(f) To enhance protection of life and property, it is mandatory that each 406 MHz PLB be registered with NOAA and that information be kept up-to-date. In addition to the identification plate or label requirements contained in Secs 2.925 and 2.926 of this chapter, each 406 MHz PLB must be provided on the outside with a clearly discernable permanent plate or label containing the following statement: "The owner of this 406 MHz PLB must register the NOAA identification code contained on this label with the National Oceanic and Atmospheric Administration (NOAA) whose address is: SARSAT Beacon Registration, NOAA, NESDIS, E/SP3, Room 3320, FB-4, 5200 Auth Road, Suitland, Maryland 20746-4303." Owners shall advise NOAA in writing upon change of PLB ownership, or any other change in registration information. NOAA will provide registrants with proof of registration and change of registration postcards.

(g) For 406 MHz PLBs with identification codes that can be changed after manufacture, the identification code shown on the plate or label must be easily replaceable using commonly available tools.