

Radio Technical Commission for Maritime Services

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**Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, D. C. 20554**

In the Matter of)	
)	
Radio Technical Commission for Maritime)	
Services)	
)	
Petition for rulemaking to amend Part 95 of the)	August 20, 2018
Commission's rules to provide for a new)	
standard on Personal Locator Beacons)	

PETITION FOR RULEMAKING

The Radio Technical Commission for Maritime Services (RTCM)¹ hereby requests the Commission to commence a rulemaking to revise the regulations at 47 CFR Part 95, Subpart K. This subpart contains the regulations for Personal Locator Beacons (PLB) and Maritime Survivor Locating Devices (MSLD), and reference 2012 editions of RTCM standards as the basis for PLB and MSLD technical requirements.

¹ The RTCM is a non-profit organization whose objectives include studying and preparing reports on maritime electronic navigation and telecommunications practices. Our focus is on needs and technologies with a view toward improving efficiency and capabilities of maritime electronic navigation and telecommunications services, suggesting ways to keep rules and regulations to the minimum essential for effectiveness, and making recommendations on important issues. Established as an advisory committee by the U.S. government in 1947 to support technical decision-making in the area of maritime radiocommunications, RTCM is now a membership organization that supports and encourages needed improvements in maritime communications and electronic navigation. RTCM technical standards have been widely incorporated in the FCC Part 80 and 95 rules, they have served as international standards, and they have been used as the basis for many more ITU and IEC international technical standards used in the maritime services.

In June 2018, RTCM completed and published a revision to the PLB standard.² Like all RTCM standards, this work was completed by a committee consisting of government and industry representatives.³ The revised PLB standard covers the design, construction and testing of both first- and second-generation PLBs.⁴ The standard also provides for optional use of Automatic Identification System (AIS) technology for locating in PLBs intended primarily for maritime use. Following extensive consultation with the Coast Guard (who in turn consulted with the FCC) the use of the AIS signal in the PLB on land has been restricted, such that it is only allowed in conjunction with a 406.0 to 406.1 MHz distress transmission. RTCM believes that the optional inclusion of AIS technology provides the potential for a significant improvement in maritime safety. The conventional 121.5 MHz homing signal is retained as a requirement even when AIS is provided. In addition to classes of PLBs designed to work at low temperatures of -20°C or -40°C, a new Class 0 PLB would be designed for use in temperatures as low as -55°C (-67°F). The specification also mandates the inclusion of an integral Global Navigation Satellite Service ((GNSS) receiver to provide improved location accuracy in the 406 MHz message and optionally permits the inclusion of a Return Link Service (RLS) capability as a means of advising the user of the PLB that their 406 MHz message was received.

² RTCM Standard 11010.3 ("RTCM 11010") for 406 MHz Satellite Personal Locator Beacons dated June 25, 2018.

³ RTCM Special Committee 110 on Emergency Beacons

⁴ First generation PLBs represent the recent and current state of the art. Second generation PLBs have all the features of first generation beacons and in addition are designed to operate optimally with the Cospas-Sarsat MEOSAR satellite system being deployed on new GPS satellites as well as other Global Navigation Satellite System satellites.

The 2012 edition of the MSLD standard has been amended twice, with the most recent amendment adopted in February 2015. Amendment 1 allowed for “open loop” in addition to “closed loop” operation. Closed loop operation covered under the original 2012 standard provided for person-overboard alerting only on the vessel or family of vessels that the person had been on. Open loop operation provides for alerting of any vessel in the immediate area of the event. Amendment 2 revised an informative annex to reference additional patents that might apply. Amendment 2 also contained a provision to prevent the sending of test messages if a position is not acquired.

RTCM proposes that Subpart K be revised to reference the new RTCM standards as the basis for authorization of PLBs and MSLDs.

RTCM’s proposal:

We recommend that 47 CFR Part 95, Subpart K be revised as follows:

§ 95.2989(a):

(a) PLB transmitter types must be designed to comply with technical standard RTCM 11010.3. MSLD transmitter types must be designed to comply with technical standard RTCM 11901.1.

§ 95.2989(b)(1)(i) and (ii):

(i) RTCM 11010.3, “406 MHz Satellite Personal Locator Beacons (PLBs),” dated June 25, 2018 (RTCM 11010).

(ii) RTCM 11901.1, “Maritime Survivor Locating Devices (MSLD) including Amendments 1 and 2,” dated February 5, 2015 (RTCM 11901).

§ 95.2991(a) and (b):


(a) No device may be marketed or sold in the United States as a “PLB” or “Personal Locator Beacon” unless it is compliant with all rules in this subpart. Previously approved PLBs that do not meet the requirements of RTCM 11010 shall not be manufactured, imported, or sold in the United States beginning [DATE TO BE DETERMINED].

(b) No device may be marketed or sold in the United States as a “MSLD” or “Maritime Survivor Locating Device” unless it complies with the requirements of RTCM 11901. Previously approved devices intended to aid in the location of persons in the water that do not meet the requirements of this subpart shall not be manufactured, imported, or sold in the United States beginning [DATE TO BE DETERMINED].

Conclusion:

RTCM urges the FCC to amend its Part 95 rules as recommended to provide an approved means for implementing these valuable services.

For the Radio Technical Commission for Maritime Services


R. L. Markle
Acting President