



Radio Technical Commission for Maritime Services

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Before the Federal Communications Commission

Washington, D. C.

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

In the Matter of)
) WT Docket No. 01-289
Review of Part 87 of the Commission's Rules)
Concerning the Aviation Radio Service)
) 28 March 2013
)

COMMENTS OF THE RADIO TECHNICAL COMMISSION FOR MARITIME SERVICES (RTCM)

The Radio Technical Commission for Maritime Services (RTCM) respectfully submits these Comments in response to the request for comment on the appropriate treatment of 121.5 MHz emergency locator transmitters (ELTs) under Part 87 of the Rules.

The RTCM is a non-profit organization whose objectives include studying and preparing reports on maritime electronic navigation and telecommunications practices. Established 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 develops and publishes standards which are incorporated by reference in Parts 80 and 95 of the

Commission's rules. Although our emphasis is on maritime technologies, our activities sometimes reach into related areas. In this case, our Special Committee 110 on Emergency Beacons includes manufacturers of Emergency Position Indicating Radiobeacons (EPIRB), Personal Locator Beacons (PLB), Ship Security Alert Systems (SSAS) operating on the Cospas-Sarsat system, as well as ELTs. All of these devices operate on the same frequencies and make similar transmissions. Active members of Special Committee 110 also include representatives of the U.S. Coast Guard, U.S. Air Force, and the National Search and Rescue Secretariat of Canada, all of whom are called upon to search for aircraft accidents which can involve ELT transmissions. RTCM also participates in the National Search and Rescue Committee, which includes members of all U.S. Federal agencies involved in Search and Rescue. As a result, RTCM is vitally interested in an effective and efficient Search and Rescue system.

RTCM supports the phase-out of the 121.5 / 243 MHz ELT as an alerting device, although it can still perform a locating function because search and rescue services can use 121.5 MHz for locating. The 121.5 MHz and 243 MHz frequencies are no longer monitored by the Cospas-Sarsat satellite system, so the only way an ELT signal can function as an alerting signal is if an overflying aircraft happens to detect it. That only happens if there is an overflying aircraft within range, and if it happens to have a radio monitoring 121.5 MHz or 243 MHz. Our understanding is that these frequencies are not often monitored, especially in busy airspace and general aviation aircraft sometimes fly in areas well away from designated commercial air traffic flight paths negating the benefit of potential alerting from overflying aircraft. For this reason, we support discontinuing the manufacture, importation, and sale of ELTs that operate only on the frequencies 121.5 MHz and/or 243 MHz. However, we believe that the rule should go further.

In order to be properly equipped for today's search and rescue system, an aircraft must be equipped with both a 406 MHz beacon for alerting through the Cospas-Sarsat satellite system, and a 121.5 MHz device for locating. RTCM recommends that this be accomplished in the following ways:

- 1 All new build Aircraft first licensed no later than one year after the effective date of the regulation should be required to be equipped with an installed 406 MHz / 121.5 MHz ELT.
- 2 Existing Aircraft should be required to replace their existing 121.5 MHz / 243 MHz ELT with a 406 MHz / 121.5 MHz ELT according to the following table:
 - a. All Business Jet and Turboprop Aircraft no later than one year after the effective date of the regulation.
 - b. All Piston Aircraft first registered after 1980 no later than one year after the effective date of the regulation.
 - c. All Piston Aircraft first registered between 1975 and 1980 no later than two years after the effective date of the regulation.
 - d. All Piston Aircraft first registered between 1967 and 1975 no later than three years after the effective date of the regulation.
 - e. All Piston Aircraft first registered before 1967 no later than four years after the effective date of the regulation.
- 3 Aircraft already equipped with an installed 121.5 MHz / 243 MHz ELT may be exempted from the requirements in 2 above for a maximum period of five years after the effective date of the regulation, provided that they also carry a 406 MHz Personal Locator Beacon (PLB) as defined by Part 95 of the Commission's Rules either mounted in a bracket in the aircraft cockpit or carried on the person of the pilot.

The above progressive installation deadline and alternative temporary PLB carriage options are proposed for the following reasons:

- 1) It spreads out the manufacturing and installation period for new ELTs over a period of time designed to ensure that both manufacturers and installers will have the capacity to cope with the deadlines. A shortage of equipment could affect ELT quality and cause short-term price increases.
- 2) The proposed cut off periods have been taken from the General Aviation Manufacturers Association (GAMA) Statistical Databook - General Aviation Airplane Shipments Data from 1959 to 2011 and were chosen to approximate an equal number of installations each year.
- 3) The oldest aircraft and thus potentially those pilots most likely to suffer a financial burden by the imposition of this rule have the longest period of time in which to comply and thus the maximum amount of time to make available the necessary funds.
- 4) Pilots of newer aircraft who might face a financial burden as a result of this new rule have the option to delay the installation of a compliant ELT by installing a PLB as an interim measure while they make available the necessary funds for the upgrade.

We have the following comments concerning the proposed regulation revisions:

§ 87.147(b) – This paragraph, including the proposed revision is about the “FCC Rule for improved satellite detection” for 121.5/243 MHz ELTs. It also does not clearly indicate that it does not apply to 406 MHz EPIRBs. Since 121.5 MHz and 243 MHz are no longer monitored by satellites, the label should no longer be required. By removing the labeling requirement, the Commission removes an unnecessary reporting and recordkeeping requirement.

§ 87.195 – This proposed regulation makes reference to “ELTs that operate only on frequency 121.5 MHz”. However, as far as we know, all ELTs operate on at least two frequencies, 121.5 MHz and 243 MHz, or 406 MHz and 121.5 MHz. Some ELTs operate on all three frequencies. Therefore, a regulation that applies to ELTs that operate only on frequency 121.5 MHz will have no effect.

Our recommendation is that the rules should be revised as follows:

Section 87.147 should be amended by revising paragraph (b) to read as follows:

§ 87.147 Authorization of Equipment

* * * * *

(b) Except for ELTs meeting § 87.199, ELTs manufactured after October 1, 1988, must meet the output power characteristics contained in §87.141(i).

Section 87.195 should be amended to read as follows:

§ 87.195 ELT installations

ELTs that do not meet § 87.199 will no longer be certified. The manufacture, importation, and sale of such ELTs is prohibited beginning [ONE YEAR AFTER EFFECTIVE DATE].

(a) After [ONE YEAR AFTER EFFECTIVE DATE], all new ELT installations must meet § 87.199.

(b) Existing Aircraft shall replace their 121.5 MHz / 243 MHz ELT with a 406 MHz / 121.5 MHz ELT compliant with § 87.199 as follows, unless they comply with paragraph (c) of this section:

- a. All Business Jet and Turboprop Aircraft no later than [ONE YEAR AFTER EFFECTIVE DATE].
 - b. All Piston Aircraft first registered after 1980 no later than [ONE YEAR AFTER EFFECTIVE DATE].
 - c. All Piston Aircraft first registered between 1975 and 1980 no later than [TWO YEARS AFTER EFFECTIVE DATE].
 - d. All Piston Aircraft first registered between 1967 and 1975 no later than [THREE YEARS AFTER EFFECTIVE DATE].
 - e. All Piston Aircraft first registered before 1967 no later than [FOUR YEARS AFTER EFFECTIVE DATE].
- (c) Aircraft already equipped with an installed 121.5 MHz / 243 MHz ELT are exempted from paragraph (b) of this section for a maximum period of [FIVE YEARS AFTER EFFECTIVE DATE], provided that they also carry a 406 MHz Personal Locator Beacon (PLB) as defined by Part 95 of the Commission's Rules either mounted in a bracket in the aircraft cockpit or carried on the person of the pilot.

Sincerely,

A handwritten signature in black ink, appearing to read "R L Markle". The signature is written in a cursive, slightly slanted style.

R. L. Markle
President