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[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 91

[Docket No. FAA-2000-⁸⁵⁵² Amendment No. 91-265]

RIN No. 2120- AH16

12-15-00

Emergency Locator Transmitters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule

SUMMARY: This final rule is being issued to comply with Congressionally-mandated changes to FAA requirements for emergency locator transmitters. This legislation removed the current exception of turbojet-powered aircraft from the emergency locator transmitter requirement, and added a new exception for aircraft with a maximum payload capacity of more than 18,000 pounds when used in air transportation. The intended effect of this rule change is to facilitate search and rescue efforts by increasing the likelihood of locating turbojet-powered aircraft after accidents.

December 22, 2000

SP 12/19/00

DATES: This regulation is effective [~~Insert date 30 days after date of publication in Federal Register~~]. However, compliance with the new ELT requirements in § 91.207 is delayed until January 1, 2004.

12/22/00
Pub 12/22/00
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FOR FURTHER INFORMATION CONTACT: Dean Chamberlain, AFS-820, Flight Standards Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, D.C. 20591. Telephone: (202) 267-7956.

SUPPLEMENTARY INFORMATION:

Availability of Final Rules

You can get an electronic copy using the Internet by taking the following steps:

- (1) Go to the search function of the Department of Transportation's electronic Docket Management System (DMS) Web page (<http://dms.dot.gov/search>).
- (2) On the search page type in the last four digits of the Docket number shown at the beginning of this amendment. Click on "search."
- (3) On the next page, which contains the Docket summary information for the Docket you selected, click on the final rule.

You can also get an electronic copy using the Internet through FAA's web page at <http://www.faa.gov/avr/armhome.htm> or the Federal Register's web page at http://www.access.gpo.gov/su_docs/aces/aces140.html.

You can also get a copy by submitting a request to the Federal Aviation Administration, Office of Rulemaking, ARM-1, 800 Independence Avenue S.W., Washington, D.C. 20591, or by calling (202) 267-9680. Make sure to identify the amendment number or docket number of this final rule.

Small Business Regulatory Enforcement Fairness Act

The Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996, requires the FAA to comply with small entity requests for information or advice about compliance with statutes and regulations within its jurisdiction. Therefore, any small entity that has a question

regarding this document may contact their local FAA official, or the person listed under FOR FURTHER INFORMATION CONTACT. You can find out more about SBFEFA on the Internet at our site <http://www.faa.gov/avr/arm/sbrefa.htm>. For more information on SBREFA, e-mail us at 9-AWA-SBREFA@faa.gov.

Background

In 1971, responding to a Congressional mandate for rulemaking (Public Law 91-96), the FAA adopted amendments to parts 25, 29, 91, 121, and 135 of title 14 of the Code of Federal Regulations (CFR) to require the installation and use of Emergency Locator Transmitters (ELTs), automatic or survival, as required, that met the requirements of Technical Standard Order (TSO)-C91.

The amendments required that certain U.S.-registered civil airplanes be equipped with automatic ELTs. An automatic ELT is a crash-activated electronic signaling device used to facilitate search and rescue efforts in locating downed aircraft. The ELTs crash sensor is commonly called a G-switch (an actuation device that operates on acceleration forces measured in G's; one G denotes the acceleration of the earth's gravity). In most installations, the ELT is attached to the aircraft structure as far aft as practicable in the fuselage in such a manner that damage to the device will be minimized in the event of impact.

Certain aircraft, such as turbojet-powered aircraft and aircraft engaged in scheduled air carrier operations, were excepted from this requirement because they were considered to be more readily located after an accident and because they operate within the air traffic control system and their operators have filed instrument flight plans.

The rule was applicable to those airplanes that were considered to be most difficult to locate after an accident, such as general aviation type airplanes. An ELT was considered

particularly helpful in locating an airplane that is operated by a pilot who does not file a flight plan or operate within the air traffic control system on an instrument flight plan.

Since the adoption of those amendments requiring installation of ELTs, there had been unsatisfactory field experience with the automatic ELTs manufactured under TSO-C91, specifically, a significant failure-to-activate rate, and false alarms. (NTSB Safety Recommendations A-78-5 through A-78-12, issued in 1978 addressed some of these ELT problems.) As a result, the FAA requested RTCA, Inc. (formerly the Radio Technical Commission for Aeronautics) to develop a revised technical standard that would address these problems. The RTCA project produced a minimum operational performance standard that was referenced in TSO-C91a, issued in April 1985. Installation of ELTs that met this improved standard, however, was voluntary.

Following the issuance of the new TSO, in 1987 the NTSB issued safety recommendation A-87-104, that recommended that existing ELTs be replaced with ELTs that comply with TSO-C91a by 1989. That safety recommendation also urged that ELTs be subject to specific maintenance requirements.

In October 1990, the National Aeronautics and Space Administration (NASA) and the FAA completed a report entitled, "Current Emergency Locator Transmitter (ELT) Deficiencies and Potential Improvements Utilizing TSO-C91a ELTs." This report consolidated and analyzed most of the known data on ELT problems and quantified the safety problem. General aviation accident and fatality data from the NTSB formed the cornerstone of the report. The most significant conclusions derived from the report showed: 23 to 58 lives were lost per year due to rescue operations made more difficult because of ELT failures. Fifteen percent of ELT failures were attributed to poor or no ELT maintenance; and, after excluding lives lost attributed to

maintenance-related ELT failures, 64 percent or 13 to 31 of the lives lost each year could have been saved with a complete transition to TSO-C91a ELTs.

Based on the known unsatisfactory performance of the TSO-C91 ELTs during the 1970's and 1980's, the FAA issued Notice No. 90-11 (55 FR 12316, April 2, 1990). This notice proposed that ELTs approved under TSO-C91a (or later issued TSOs for ELTs) be required for all future installations. The NPRM further proposed that the manufacture of the TSO-C91 ELTs be simultaneously terminated with issuance of a final rule. The term "future installations" applied to newly manufactured airplanes, and to the replacement of existing ELTs as they became unusable or unserviceable. Additionally, the FAA solicited comments on the need for a fleet-wide ELT replacement program and specific maintenance requirements.

On June 21, 1994, the FAA issued a final rule requiring that newly installed ELTs on U.S.-registered aircraft be of an improved design that met the requirements of TSO-C91a or later TSOs issued for ELTs (54 FR 32057). The final rule also addressed certain safety recommendations made by the NTSB and the search and rescue (SAR) community. The FAA also adopted improved standards for survival ELTs. The rule was expected to have a dramatic effect on reducing activation failures and would increase the likelihood of locating airplanes after accidents. In addition, publication of the final rule coincided with notice of the FAA's withdrawal of manufacturing authority for ELTs produced under TSO-C91.

This final rule was amended with a correction, published on July 6, 1994, which stated that ELTs meeting the requirements of TSO-C91 could no longer be used for new installations after June 21, 1995. (54 FR 34578)

Recent Congressional Action

As stated earlier, turbojet-powered aircraft had been excepted from the part 91 ELT requirement because such aircraft are normally flown under Instrument Flight Rules and are normally in radio contact throughout their flight with air traffic control (ATC); as a result, their location is generally known by ATC throughout their flight.

However, Congress took action to remove this exception and require ELT equipment on turbojet-powered aircraft as a result of a missing "business jet" type of turbojet-powered aircraft that crashed on approach to Lebanon Municipal Airport in New Hampshire in 1996. This aircraft, a Learjet 35A, which had been operating under instrument meteorological conditions but did not have an ELT, was not found until 1999 (by a forester) approximately 17 nautical miles⁺ from the airport.

On April 5, 2000, Congress passed H.R. 1000, the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (AIR-21) (Public Law 106-181). Section 501 of this legislation set forth the following requirements: (1) It removed the current exception of turbojet-powered aircraft from the ELT requirement; (2) It limited the scope of the rule change by creating a new exception category for aircraft with a maximum payload capacity of more than 18,000 pounds when used in air transportation; (3) It required that the affected turbojet-powered aircraft be equipped with ELTs that transmit on the 121.5/243 megahertz frequency or the 406 megahertz frequency or with other equipment approved by the Secretary; and (4) It specified compliance dates for the new changes, ~~i.e., the rule would become effective~~ on January 1, 2002, unless the Administrator grants operators up to 2 years after January 1, 2002, to equip affected turbojet-powered aircraft with ELT equipment.

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The removal of the exception for turbojet-powered aircraft in § 91.207(f)(1) affects not only private business jets, such as the one lost after the 1996 accident in New Hampshire, but also any turbojet-powered aircraft that does not qualify for one of the other exceptions. Since current § 91.207(f)(2) excepts scheduled operations by air carriers, the remaining operations that are affected are unscheduled operations conducted under parts 119, 121, and 135 with turbojet-powered aircraft, as well as turbojet-powered aircraft operated under part 91 or part 125. However, such operations conducted in large turbojet powered aircraft in air transportation are normally flown under IFR and are in radio contact with a flight-following or dispatch system or with ATC throughout the flight. For this reason Congress limited the scope of its action by adding an exception for aircraft with a maximum payload capacity of more than 18,000 pounds when used in air transportation. "Air transportation" is the carriage of persons or property as a common carrier for compensation or hire, i.e., operations conducted by air carriers. For purposes of this regulation, the definition of "maximum payload capacity" in § 119.3 will be used.

The provision in AIR-21 allowing the use of ELTs operating on either the 121.5/243 megahertz frequency or the 406 megahertz frequency is consistent with the types of ELTs that are currently approved by the FAA for installation on aircraft. However, the FAA strongly urges operators who are installing an ELT for the first time, in order to comply with this new requirement, to install an ELT that operates on the 406 megahertz frequency, even though this is the more costly option. There are two reasons to do this:

1. In the final rule published on June 21, 1994 (59 FR 32050), the FAA recommended the use of the 406 MHz ELT, stating that the higher frequency ELT provides an enhancement and more life-saving benefits, especially for operations conducted over water and in remote

areas. Commenters to the NPRM on which the 1994 final rule was based argued that the 406 MHz ELT has significant technical improvements over the 121.5/243 MHz ELT and that it is compatible with the Search and Rescue Satellite-Aided Tracking System (COSPAS-SARSAT). Commenters further argued that COSPAS/SARSAT has proven to be an effective tool in detecting and locating both maritime and aeronautical distress incidents, that the satellite system had been credited with saving more than 1,700 lives, and that, in many of these cases, the satellite system was the only means of detecting the distress signal.

In addition, not only does the 406 MHz ELT transmit a stronger signal that can be detected almost instantaneously by geostationary satellites, the 406 MHz ELT signal can be coded with the owner's identification or aircraft coding. This coding permits Search and Rescue Coordination Centers to contact the registered owner or operator and verify if the aircraft is flying or safely tied down or in a hangar. This permits a rapid SAR response or allows the owner or operator to deactivate a 406 MHz ELT that is inadvertently transmitting. This valuable feature permits a very rapid SAR response in the event of a real accident, and it saves valuable SAR resources in the event of an inadvertent 406 MHz ELT activation. In addition to its many other benefits, newer 406 MHz ELTs are being designed with the capability to transmit an aircraft's last known position. This capability further reduces the 406 MHz's already small search area.

The current 121.5 MHz ELT is lower-powered, does not transmit any owner or aircraft coding, and its signal does not produce as small a search area as a 406 MHz ELT. In addition, United States SAR organizations do not respond as quickly to a 121.5 MHz ELT alert as they do to a 406 MHz alert. The reason is the large number of 121.5 MHz ELT false alerts. Because of the large number of 121.5 MHz ELT false alerts, the common practice is to wait for either a

confirmation of an alert by additional satellite passes or through confirmation of an overdue aircraft or similar notification.

2. In the year 2009, the international COSPAS-SARSAT satellite system will no longer provide satellite-based monitoring of the 121.5/243 MHz frequency. After the date of the satellite termination, in 2009, 121.5 MHz signals transmitted from ELTs operating on the lower frequency will only be detected by ground-based receivers such as local airport facilities or air traffic control facilities or by overflying aircraft.

Because of the many safety benefits of installing ELTs operating on the 406 MHz frequency, and the pending termination of the satellite-based monitoring of the 121.5/243 MHz frequency, the Administrator has decided to extend the compliance period for this new ELT requirement to January 1, 2004, as allowed under AIR-21, to permit those owners or operators who want to install the more effective 406 MHz ELT time to do so. This extra time will ensure that manufacturers can provide an adequate supply of the higher frequency 406 MHz ELTs, which in turn may lower the cost for operators required to purchase and install an ELT under this final rule.

under Administrative Procedure Act *EP 12/19/00*
~~Waiver of Notice and Comment~~

Under the Administrative Procedure Act (APA) (5 U.S.C. 553(b)), an agency may waive the normal notice and comment requirements if it finds, for good cause, that they are impracticable, unnecessary, or contrary to the public interest. Since AIR-21 mandated the changes to the ELT requirements and directed the FAA to issue a final rule by January 1, 2001,

the FAA has determined that it has good cause to waive prior notice and comment, *and to make this final rule effective in less than 30 days after publication.*

Paperwork Reduction Act

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The Paperwork Reduction Act of 1995 (44 U.S.C. 3507 (d)) requires that the FAA consider the impact of paperwork and other information collection burdens imposed on the public. The FAA has determined that there are no new information collection requirements associated with this rule.

Regulatory Evaluation Summary

Changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 directs that each Federal agency must propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 requires agencies to analyze the economic effect of regulatory changes on small entities. Third, OMB directs agencies to assess the effect of regulatory changes on international trade. Fourth, the Unfunded Mandates Reform Act of 1995 requires agencies to prepare a written assessment of the costs, benefits and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local or tribal governments, in the aggregate, or by the private sector, of \$100 million or more annually (adjusted for inflation).

Since this rule carries forth the direction and scope of the law, the cost and the benefit are attributed to the law and not to this implementing rule. Thus, in conducting these analyses, the FAA has determined that this rule is not “a significant regulatory action” under section 3(f) of Executive Order 12866 and, therefore, is not subject to review by the Office of Management and Budget. The rule is not considered significant under the regulatory policies and procedures of the Department of Transportation (44 FR 11034, February 26, 1979). For the reason given above, this rule will not have a significant impact on a substantial number of small entities, will

not constitute a barrier to international trade, and does not impose an unfunded mandate on state, local, or tribal governments, or on the private sector.

The cost and the benefit of this rule are attributed to Section 501 of this legislation which set forth the following requirements: (1) It removed the current exemption of turbojet-powered aircraft from the ELT requirement; and (2) It required that these turbojet-powered aircraft be equipped with ELT's that transmit on the 121.5/243 megahertz frequency or the 406 megahertz frequency or with other equipment approved by the Secretary. This rule does not exceed the direction and scope of the law as just described.

Final Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) establishes "as a principle of regulatory issuance that agencies must endeavor, consistent with the objective of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the business, organizations, and governmental jurisdictions subject to regulation." To achieve that principle, the Act requires agencies to solicit and consider flexible regulatory proposals and to explain the rationale for their actions. The Act covers a wide-range of small entities, including small businesses, not-for-profit organizations and small governmental jurisdictions.

Agencies must perform a review to determine whether a proposed or final rule will have a significant economic impact on a substantial number of small entities. If the determination is that it will, the agency must prepare a regulatory flexibility analysis as described in the Act.

However, if an agency determines that a final rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the 1980 act

provides that the head of the agency may so certify and an regulatory flexibility analysis is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear.

This rule carries forth the direction and scope of Section 501 of the Wendall H. Ford Aviation Investment and Reform Act. The cost and the benefit are attributed to the law and not to this implementing rule. Consequently, the FAA certifies that this rule will not have a significant economic impact on a substantial number of small entities.

International Trade Impact Statement

The Trade Agreement Act of 1979 prohibits Federal agencies from engaging in any standards or related activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic objectives, such as safety, are not considered unnecessary obstacles. The statute also requires consideration of international standards and where appropriate, that they be the basis for U.S. standards. In addition, consistent with the Administration's belief in the general superiority and desirability of free trade, it is the policy of the Administration to remove or diminish to the extent feasible, barriers to international trade, including both barriers affecting the export of American goods and services to foreign countries and barriers affecting the import of foreign goods and services into the United States.

In accordance with the above statute and policy, the FAA has assessed the potential effect of this final rule and has determined that it will impose the same costs on domestic and international entities and thus has a neutral trade impact.

Federalism Implications

The regulations herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 13132, the FAA has determined that this rule will not have sufficient federalism implications to warrant the preparation of a federalism assessment.

Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (the Act), codified as 2 U.S.C. 1501-1571, requires each Federal agency, to the extent permitted by law, to prepare a written assessment of the effects of any Federal mandate in a proposed or final agency rule that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$100 million or more (adjusted annually for inflation) in any one year. Section 204(a) of the Act, 2 U.S.C. 1534(a), requires the Federal agency to develop an effective process to permit timely input by elected officers (or their designees) of State, local, and tribal governments on a proposed “significant intergovernmental mandate.” A “significant intergovernmental mandate” under the Act is any provision in a Federal agency regulation that would impose an enforceable duty upon State, local, and tribal governments, in the aggregate, of \$100 million (adjusted annually for inflation) in any one year. Section 203 of the Act, 2 U.S.C. 1533, which supplements section 204(a), provides that before establishing any regulatory requirements that might significantly or uniquely affect small governments, the agency must have developed a plan that, among other things, provides for notice to potentially affected small governments, if any, and for a meaningful and timely opportunity to provide input in the development of regulatory proposals.

The FAA has determined that this rule does not contain a Federal intergovernmental or private sector mandate that exceeds \$100 million in any one year.

Environmental Analysis

FAA Order 1050.1D defines FAA actions that may be categorically excluded from preparation of a National Environmental Policy Act (NEPA) environmental assessment or environmental impact statement. In accordance with FAA Order 1050.1D, appendix 4, paragraph 4(j), regulations, standards, and exceptions (excluding those that, if implemented, may cause a significant impact on the human environment) qualify for a categorical exclusion. The FAA has determined that this rule qualifies for a categorical exclusion because no significant impacts to the environment are expected to result from its implementation.

List of Subjects in 14 CFR Part 91

Air traffic control, Aircraft, Aviation safety, Safety.

The Amendment

For the reasons set forth above, the Federal Aviation Administration amends 14 CFR part 91 as follows:

PART 91 — GENERAL OPERATING AND FLIGHT RULES

1. The authority citation for part 91 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40103, 40113, 40120, 44101, 44111, 44701, 44709, 44711, 44712, 44715, 44716, 44717, 44722, 46306, 46315, 46316, 46502, 46504, 46506-46507, 47122, 47508, 47528-47531.

2. Amend § 91.207 by revising paragraph (f)(1); removing “; and” from the end of paragraph (f)(9) and replacing it with a period; replacing the period at the end of paragraph (f)(10)(ii) with “; and”; and adding paragraph (f)(11) to read as follows: *The revision*

§ 91.207 Emergency locator transmitters.

* * * * *

(f) Paragraph (a) of this section does not apply to--

(1) Before January 1, 2004, turbojet-powered aircraft;

* * * * *

(11) On and after January 1, 2004, aircraft with a maximum payload capacity of more than 18,000 pounds when used in air transportation.

Issued in Washington, DC on DEC 15 2000

Jane F. Garvey
Jane F. Garvey
Administrator