



[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Underwater Locating Devices (Acoustic) (Self-Powered)

AGENCY: Federal Aviation Administration (FAA), DOT

ACTION: Notice of revocation of Technical Standard Orders (TSO) C-121 and C-121a, Underwater Locating Devices (ULD).

SUMMARY: This is a confirmation notice for the planned revocation of all Technical Standard Order authorizations issued for the production of Underwater Locating Devices (Acoustic) (Self-Powered) manufactured to the TSO-C121 and TSO-C121a specifications. These actions are necessary because the planned issuance of TSO-C121b, Underwater Locating Devices (Acoustic) (Self-Powered), minimum performance standard (MPS) will increase the minimum operating life of Underwater Locating Devices from 30 days to 90 days.

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SUPPLEMENTARY INFORMATION:

BACKGROUND

On August 23, 2011, the Federal Aviation Administration (FAA) published a Notice in the Federal Register, Volume 76, page 52734, announcing the planned revocation of TSO-C121 and TSO-C121a authorizations and requested comments. The FAA proposed

revising TSO-C121a to invoke the new SAE standard AS8045A which improves ULD performance, including increasing the battery operating life from 30 days to 90 days. When TSO-C121b is published, the FAA proposed withdrawing TSO-C121 and TSO-C121a authorizations no later than March 1, 2014. All Underwater Locating Devices (Acoustic) (Self-Powered) equipment manufacturers seeking TSO authorization would then need to obtain a new authorization to manufacture in accordance with TSO-C121b.

COMMENTS

The FAA received four comments in response to the August 23, 2011, Federal Register Notice. The first comment, by Boeing Commercial Airplanes (Boeing), stated that the effective date of the planned withdrawal, March 1, 2014, appeared to have been calculated to provide two years between the publication date of the new TSO (approximately March 2012) and the withdrawal of the TSO authorizations. In order to allow orderly compliance, however, Boeing stated that industry needs the FAA to ensure at least three full years will be provided. Boeing stated that three years is the minimal time required for affected industry to address technical, business, and certification aspects of a new underwater locating device (ULD) before the existing devices can no longer be manufactured. Boeing urged the FAA take into consideration the fact that there are multiple flight data recorder suppliers with varying procurement methods and contractual details that will be necessary to address. Additionally, Boeing noted that the new SAE performance standards referenced in proposed TSO-C121b include new testing requirements. Boeing commented that one ULD manufacturer has already indicated that

its existing 90-day ULD will not meet the requirements of the new SAE specification called out in the TSO, and therefore, a complete re-design of the unit will be necessary. The FAA agrees with Boeing's comment. TSO-C121b was published on February 28, 2012 and as such we have changed the withdrawal date to March 1, 2015. Boeing also stated that the effect of the planned TSO revocation would be to eliminate the manufacture of ULDs based on an older SAE Aerospace Standard that calls for a 30-day life, and requires the use of only ULDs based on a newer SAE standard that calls for a 90-day life. While Boeing recognized the current 14 CFR part 25 design regulations applicable to ULDs specified in 14 CFR § 25.1457(g)(3) do not require a specific battery life, Boeing noted that the associated 14 CFR part 121 operating rules states in §121.359(c)(2)(iii), the aircraft have an "approved" underwater locating device. By revising the TSO to require different performance standards of the new SAE specification, Boeing argued that it appears the FAA may essentially be implementing a new operating requirement without rulemaking to precede it. Boeing asked the FAA to review this process and clarify the intent.

The FAA acknowledges this comment. The TSO process is one method to gain approval for an underwater locating device, but not the only method. The FAA notes that it is within its authority to revoke, or withdraw, previous TSO-C121 and TSO-C121a approvals. The intent of revoking TSO-C121 and TSO-C121a and only authorizing TSO-C121b is to enable future ULD designs that have a minimum operating life of 90 days. The FAA expects attrition of TSO-C121 and TSO-C121a approved ULDs to occur as older ULDs are replaced by TSO-C121b approved ULDs.

L-3 Communications Aviation Recorders (L-3) commented that a ULD designed to meet the 90-day performance criteria in SAE AS8045A will have a lithium battery large enough that it will be considered hazardous material. L-3 stated that it will need to follow DOT Hazardous Material Class 9 regulations to ship recorders outfitted with the 90-day beacon. L-3 noted this places considerable constraints on available carriers and the destinations to which they will ship. L-3 stated this would negatively impact their customers.

The FAA acknowledges that shipping regulations for hazardous material with regard to lithium batteries will need to be complied with.

L-3 Communications indicated its concern with the FAA plan of attrition for the 30-day beacon and what repercussions this has for configuration control for thousands of recorder part numbers and the field reparability of their beacons. Since it may take up to 6 years to replace a beacon battery, L-3 estimated that there will be years of both 30-day and 90-day beacons in service once the new TSO-C121b is in effect and TSO-C121 and TSO-C121a authorizations are revoked. In the event of a crash, L-3 noted that there will be unnecessary time required to determine if a 90-day beacon was onboard to warrant an extended search effort.

The FAA disagrees with this comment. Regardless whether or a not a planned retrofit program was invoked, both pre and post TSO-C121b configuration, control documentation requirements and process remain the same. The FAA acknowledges that today's action will introduce a mixed ULD equipage across the fleet. However, manufacturers currently produce both a 30-day and 90-day ULD that is recorded in the configuration control documentation. The FAA believes that no additional burden is

imposed, to identify if a 30-day or a 90-day ULD is installed on an aircraft for an operator during an over-water accident investigation.

CONCLUSION

Based on the comments received, the FAA will revise TSO-C121a to invoke the SAE Minimum Performance Standard AS8045A, dated August 2011. Once TSO-C121b is published, the FAA will revoke TSO-C121 and TSO-C121a authorizations no later than March 1, 2015.

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