



Federal Aviation Administration

Memorandum

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To: See Distribution

From: David Hempe, Manager, Aircraft Engineering Division, AIR-100 *DA*

Subject: Enhanced Airworthiness Program for Airplane Systems (EAPAS)
Supplemental Type Certificate (STC) Limitation

Revision

This memo has been revised to change the statement being added to the limitation section of certain supplemental type certificates (STC). The date has been extended from June 7, 2010 to August 30, 2010, to accommodate the time it may take for FAA approval of the necessary compliance documentation. This extension is based on the approval times identified in Order 8110.104 and an estimated 4 weeks for an STC holder to incorporate any changes that may be required by the FAA. STCs that have been issued with the previous date do not need to be revised. However, if the previous date is preventing an operator from installing a modification, and the STC holder has submitted the necessary compliance documentation, then the ACO may revise the limitation section of STC with the August 30, 2010 date.

Background

The Enhanced Airworthiness Program for Airplane Systems (EAPAS) final rule became effective on December 10, 2007. Certain design approval holders, including certain STC applicants, will need to meet the requirements outlined in § 26.11. It allows an STC to be issued even though the STC applicant has not yet met these requirements. In this case a limitation should be added to the STC. This policy memorandum describes how and when this will be done.

The part 26 portion of the EAPAS final rule, § 26.11, requires certain STC applicants to evaluate whether electrical wiring interconnection system (EWIS) instructions for continued airworthiness (ICA) developed by the TC holder are adequate for their proposed modification. If the TC holder's EWIS ICA are not adequate, the STC

applicant must develop and submit revised EWIS ICA to the FAA for approval. In accordance with the timeline set out by § 26.11, the STC applicant has until June 7, 2010, to meet these requirements. An STC can be issued prior to the applicant meeting these requirements, provided issuance is not after June 7, 2010.

Since the STC can be issued prior to meeting the applicable § 26.11 requirements, it has been determined that a limitation should be added to the STC when the requirements have not been met. This is not to be confused with the limitation on incomplete ICAs imposed by FAA Order 8110.54, "Instructions for Continued Airworthiness" which provides instructions to add a limitation if there is a need to issue a design approval without complete ICA coverage (reference paragraph 5-1(i)(3)). In Order 8110.54, the design may be approved without completed ICAs, but the first airworthiness certificate may not be issued until the ICAs are completed and approved. For the purposes of EAPAS, the limitation specified in Order 8110.54 should be modified, because the STC applicant has until June 7, 2010 to submit revised EWIS ICA, if they need to be revised. After that date, the STC is not allowed to be installed. The modified limitation wording is shown below.

The intent of this limitation for EAPAS would be to prevent installations after August 30, 2010, if the STC holder had not met the § 26.11 requirements. In addition, the limitation would provide visibility to the STC holder and the FAA that the holder still needs to provide the EWIS ICA. The August 30, 2010 date is based on the STC holder submitting the necessary compliance documentation by required June 7, 2010 date, the approval times identified in Order 8110.104, and an estimated 4 weeks for the STC holder to incorporate any changes that may be required by the FAA.

Statement to be added in Limitation Section of the STC

The following statement should be added to the limitation section of the STC when the EWIS ICA evaluation has not been completed at the time of the STC issuance (provided it is issued prior to June 7, 2010). The goal of the limitation is (1) to not allow any installations after August 30, 2010, if an STC applicant has not met the § 26.11 EWIS requirements, and (2) to not ground any airplanes that already have the STC installed.

“This modification may not be installed after August 30, 2010 unless (1) previously approved electrical wiring interconnection system (EWIS) instructions for continued airworthiness (ICA) have been evaluated and determined to be adequate for this installation by the FAA, or (2) revised EWIS ICA have been approved by the FAA Oversight Office. (Refer to § 26.11).”

In order for the STC to be installed after August 30, 2010, the STC installer will need to have one of the following:

1. An FAA letter stating that the previously approved EWIS ICA have been evaluated and shown to be adequate for the modification, or

2. Revised EWIS ICA that have been approved by the FAA Oversight Office for the STC modification.

Once the STC holder has met the § 26.11 requirements, the STC does not need to be revised to remove the statement. However, if the STC needs to be updated/amended, the limitation may be removed at that time.

Certification Basis

FAA Order 8110.4C, "Type Certification", § 4-19(c) discusses how and when the certification basis for an STC should be added to FAA Form 8110-2.1. This policy should be extended to include part 26. If the STC retained its original certification basis, thus not warranting a continuation sheet, a note stating the applicable part 26 requirements may be included in the *Limitations and Conditions* portion of the STC cover page. The applicable part 26 requirements should be identified, even if compliance has not yet been shown. Examples are shown in the attachment. Note, that if the original certification basis that is retained includes the applicable part 26 requirements, there is no need to list the part 26 requirements separately on FAA Form 8110-2.1.

STC Cover Letter

In addition, the following wording (or similar) should be included in the FAA letter that transmits the STC:

"In accordance with § 26.11(c), you must evaluate whether this STC installation necessitates a revision to the ICA required by § 26.11(b), and if so, you must develop and submit the necessary revisions for review and approval to this office. You must also ensure that any revised EWIS ICA remain compatible with any fuel tank system ICA previously developed to comply with SFAR 88 and any redundant requirements between them minimized. These requirements must be met no later than June 7, 2010.

Since you have not yet shown compliance to § 26.11(c), a limitation has been added to the STC. The intent of this limitation is to prevent future installations of this STC modification after August 30, 2010, if you have not fully complied with § 26.11(c). The limitation also provides visibility and a reminder to you and the FAA of this open compliance item. Note that the limitation applies to you, the STC holder, and not to any person who may operate an airplane with this installed STC modification. Operators will be able to continue to operate airplanes with this installed STC modification, even if you have not complied with § 26.11(c) by June 7, 2010. The FAA will likely pursue enforcement action on you (not operators), if you do not show compliance to § 26.11(c) by June 7, 2010

If you have any questions regarding these requirements, please contact [ACO focal] at [phone number]."

For questions regarding the information in this memo, please contact Chris Carter at (202) 493-4835, or via email at chris.carter@faa.gov or Meghan Gordon at (425) 227-2138, or via email at meghan.gordon@faa.gov.

Attachment

Example STC – Retaining Original Certification Basis

Certification Basis: Based on 14 CFR §§ 21.115 and 21.101, and FAA Order 8110.48, the type certification basis for the Boeing 737-300 is as shown on TCDS A16WE for parts changed or affected by the change and the following part 26 regulations:

26.11

Example STC – New Certification Basis

Based on 14 CFR §§ 21.115 and 21.101, and the FAA policy for significant changes in FAA Order 8110.48, the certification basis for the Boeing Model 737-300 series passenger to freighter is as follows:

- a. The type certification basis for Boeing Model 737 series airplanes is shown on TCDS A16WE for parts **not changed or not affected** by the change.
- b. The certification basis for parts **changed or affected** by the change since the reference date of application, March 20, 2001, is based upon part 25 as amended by Amendment 25-101. Based on 14 CFR §§ 21.115 and 21.101, and the FAA policy for significant changes in FAA Order 8110.48, the certification basis for this modification was determined to be:

Regulations at the latest amendment 25-0 through 25-101

25.1 - 25.31, 25.301 - 25.307, 25.561 - 25.563, 25.581, 25.601 - 25.625, 25.671 - 25.689, 25.729, 25.777, 25.783 - 25.793, 25.801 - 25.812, 25.843, 25.851 - 25.869, 25.871, 25.903, 25.1301, 25.1309, 25.1322 - 25.1326, 25.1351 - 25.1363, 25.1411 - 25.1423, 25.1431 - 25.1461, 25.1501, 25.1519 - 25.1533, 25.1541 - 25.1563, 25.1581 - 25.1585, Appendix F

Regulations at an intermediate amendment

25.574 Amendment 25-54
25.629 Amendment 25-46
Appendix H Amendment 25-54

Regulations at the amendment level in TCDS A16WE

25.25, 25.321 - 25.373, 25.471 - 25.519, 25.731 - 25.735, Appendix G

Part 26 regulations

26.11

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