

# Part 26 — CCAR-26

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# FAR Part 26 ??

## Part 26

**Authority:**

**Source:**

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### § 26.1

**Purpose and scope.**

(a) This part establishes requirements for support of the continued airworthiness of and safety improvements for transport category airplanes. These requirements may include performing assessments, developing design changes, developing revisions to Instructions for Continued Airworthiness (ICA), and making necessary documentation available to affected persons. Requirements of this part that establish standards for design changes and revisions to the ICA are considered airworthiness requirements.

(b) Except as provided in paragraph (c) of this section, this part applies to the following persons, as specified in each subpart of this part:

(1) Holders of type certificates and supplemental type certificates.

(2) Applicants for type certificates and supplemental type certificates and changes to those certificates (including service bulletins describing design changes).

(3) Persons seeking design approval for airplane repairs, alterations, or modifications that may affect airworthiness.

(4) Holders of type certificates and their licensees producing new airplanes.

(c) An applicant for approval of a design change is not required to comply with any applicable airworthiness requirement of this part if the applicant elects or is required to comply with a corresponding amendment to part 25 of this chapter that is adopted concurrently or after that airworthiness requirement.

(d) For the purposes of this part, the word “type certificate” does not include supplemental type certificates.

## § 26.3

## § 26.5

### **Applicability table.**

Table 1 of this section provides an overview of the applicability of this part. It provides guidance in identifying what sections apply to various types of entities. The specific applicability of each subpart and section is specified in the regulatory text.

## § 26.11

### **Electrical wiring interconnection systems (EWIS) maintenance program.**

(a) Except as provided in paragraph (g) of this section, this section applies to transport category, turbine-powered airplanes with a type certificate issued after January 1, 1958, that, as a result of the original certification, or later increase in capacity, have—

- (1) A maximum type-certificated passenger capacity of 30 or more or
- (2) A maximum payload capacity of 7,500 pounds or more.

(b) Holders of, and applicants for, type certificates, as identified in paragraph (d) of this section must develop Instructions for Continued Airworthiness (ICA) for the representative airplane's EWIS in accordance with part 25, Appendix H paragraphs H25.5(a)(1) and (b) of this subchapter in effect on December 10, 2007 for each affected type design, and submit those ICA for review and approval by the responsible Aircraft Certification Service office. For purposes of this section, the “representative airplane” is the configuration of each model series airplane that incorporates all variations of EWIS used in production on that series airplane, and all TC-holder-designed modifications mandated by airworthiness directive as of the effective date of this rule. Each person specified in paragraph (d) of this section must also review any fuel tank system ICA developed by that person to comply with SFAR 88 to ensure compatibility with the EWIS ICA, including minimizing redundant requirements.

(c) Applicants for amendments to type certificates and supplemental type certificates, as identified in paragraph (d) of this section, must:

- (1) Evaluate whether the design change for which approval is sought necessitates a revision to the ICA required by paragraph (b) of this section to comply with the requirements of Appendix H, paragraphs H25.5(a)(1) and (b). If so, the applicant must develop and submit the necessary revisions for review and approval by the responsible Aircraft Certification Service office.

(2) 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 are minimized.

(d) The following persons must comply with the requirements of paragraph (b) or (c) of this section, as applicable, before the dates specified.

(1) Holders of type certificates (TC): December 10, 2009.

(2) Applicants for TCs, and amendments to TCs (including service bulletins describing design changes), if the date of application was before December 10, 2007 and the certificate was issued on or after December 10, 2007: December 10, 2009 or the date the certificate is issued, whichever occurs later.

(3) Unless compliance with § 25.1729 of this subchapter is required or elected, applicants for amendments to TCs, if the application was filed on or after December 10, 2007: December 10, 2009, or the date of approval of the certificate, whichever occurs later.

(4) Applicants for supplemental type certificates (STC), including changes to existing STCs, if the date of application was before December 10, 2007 and the certificate was issued on or after December 10, 2007: June 7, 2010, or the date of approval of the certificate, whichever occurs later.

(5) Unless compliance with § 25.1729 of this subchapter is required or elected, applicants for STCs, including changes to existing STCs, if the application was filed on or after December 10, 2007, June 7, 2010, or the date of approval of the certificate, whichever occurs later.

(e) Each person identified in paragraphs (d)(1), (d)(2), and (d)(4) of this section must submit to the responsible Aircraft Certification Service office for approval a compliance plan by March 10, 2008. The compliance plan must include the following information:

(1) A proposed project schedule, identifying all major milestones, for meeting the compliance dates specified in paragraph (d) of this section.

(2) A proposed means of compliance with this section, identifying all required submissions, including all compliance items as mandated in part 25, Appendix H paragraphs H25.5(a)(1) and (b) of this subchapter in effect on December 10, 2007, and all data to be developed to substantiate compliance.

(3) A proposal for submitting a draft of all compliance items required by paragraph (e)(2) of this section for review by the responsible Aircraft Certification Service office not less than 60 days before the compliance time specified in paragraph (d) of this section.

(4) A proposal for how the approved ICA will be made available to affected persons.

(f) Each person specified in paragraph (e) must implement the compliance plan, or later approved revisions, as approved in compliance with paragraph (e) of this section.

(g) This section does not apply to the following airplane models:

(1) Lockheed L-188

“ (2) Bombardier CL-44

“ (3) Mitsubishi YS-11

“ (4) British Aerospace BAC 1-11

“ (5) Concorde

“ (6) deHavilland D.H. 106 Comet 4C

“ (7) VFW—Vereinigte Flugtechnische Werk VFW-614

“ (8) Ilyushin Aviation IL 96T

“ (9) Bristol Aircraft Britannia 305

“ (10) Handley Page Herald Type 300

“ (11) Avions Marcel Dassault—Breguet Aviation Mercure 100C

(12) Airbus Caravelle

“(13) Lockheed L-300

## § 26.21

### **Limit of validity.**

(a) Applicability. Except as provided in paragraph (g) of this section, this section applies to transport category, turbine-powered airplanes with a maximum takeoff gross weight greater than 75,000 pounds and a type certificate issued after January 1, 1958, regardless of whether the maximum takeoff gross weight is a result of an original type certificate or a later design change. This section also applies to transport category, turbine-powered airplanes with a type certificate issued after January 1, 1958, if a design change approval for which application is made after January 14, 2011 has the effect of reducing the maximum takeoff gross weight from greater than 75,000 pounds to 75,000 pounds or less.

(b) Limit of validity. Each person identified in paragraph (c) of this section must comply with the following requirements:

(1) Establish a limit of validity of the engineering data that supports the structural maintenance program (hereafter referred to as LOV) that corresponds to the period of time, stated as a number of total accumulated flight cycles or flight hours or both, during which it is demonstrated that widespread fatigue damage will not occur in the airplane. This demonstration must include an evaluation of airplane structural configurations and be supported by test evidence and analysis at a minimum and, if available, service experience, or service experience and teardown inspection results, of high-time airplanes of similar structural design, accounting for differences in operating conditions and procedures. The airplane structural configurations to be evaluated include—

(i) All model variations and derivatives approved under the type certificate; and

(ii) All structural modifications to and replacements for the airplane structural configurations specified in paragraph (b)(1)(i) of this section, mandated by airworthiness directives as of January 14, 2011.

(2) If the LOV depends on performance of maintenance actions for which service information has not been mandated by airworthiness directive as of January 14, 2011, submit the following to the responsible Aircraft Certification Service office:

(i) For those maintenance actions for which service information has been issued as of the applicable compliance date specified in paragraph (c) of this section, a list identifying each of those

actions.

(ii) For those maintenance actions for which service information has not been issued as of the applicable compliance date specified in paragraph (c) of this section, a list identifying each of those actions and a binding schedule for providing in a timely manner the necessary service information for those actions. Once the responsible Aircraft Certification Service office approves this schedule, each person identified in paragraph (c) of this section must comply with that schedule.

(3) Unless previously accomplished, establish an Airworthiness Limitations section (ALS) for each airplane structural configuration evaluated under paragraph (b)(1) of this section.

(4) Incorporate the applicable LOV established under paragraph (b)(1) of this section into the ALS for each airplane structural configuration evaluated under paragraph (b)(1) and submit it to the responsible Aircraft Certification Service office for approval.

(c) Persons who must comply and compliance dates. The following persons must comply with the requirements of paragraph (b) of this section by the specified date.

(1) Holders of type certificates (TC) of airplane models identified in Table 1 of this section: No later than the applicable date identified in Table 1 of this section.

(2) Applicants for TCs, if the date of application was before January 14, 2011: No later than the latest of the following dates:

(i) January 14, 2016;

(ii) The date the certificate is issued; or

(iii) The date specified in the plan approved under § 25.571(b) for completion of the full-scale fatigue testing and demonstrating that widespread fatigue damage will not occur in the airplane structure.

(3) Applicants for amendments to TCs, with the exception of amendments to TCs specified in paragraphs (c)(6) or (c)(7) of this section, if the original TC was issued before January 14, 2011: No later than the latest of the following dates:

(i) January 14, 2016;

(ii) The date the amended certificate is issued; or

(iii) The date specified in the plan approved under § 25.571(b) for completion of the full-scale fatigue testing and demonstrating that widespread fatigue damage will not occur in the airplane structure.

(4) Applicants for amendments to TCs, with the exception of amendments to TCs specified in paragraphs (c)(6) or (c)(7) of this section, if the application for the original TC was made before January 14, 2011 but the TC was not issued before January 14, 2011: No later than the latest of the

following dates:

(i) January 14, 2016;

(ii) The date the amended certificate is issued; or

(iii) The date specified in the plan approved under § 25.571(b) for completion of the full-scale fatigue testing and demonstrating that widespread fatigue damage will not occur in the airplane structure.

(5) Holders of either supplemental type certificates (STCs) or amendments to TCs that increase maximum takeoff gross weights from 75,000 pounds or less to greater than 75,000 pounds: No later than July 14, 2012.

(6) Applicants for either STCs or amendments to TCs that increase maximum takeoff gross weights from 75,000 pounds or less to greater than 75,000 pounds: No later than the latest of the following dates:

(i) July 14, 2012;

(ii) The date the certificate is issued; or

(iii) The date specified in the plan approved under § 25.571(b) for completion of the full-scale fatigue testing and demonstrating that widespread fatigue damage will not occur in the airplane structure.

(7) Applicants for either STCs or amendments to TCs that decrease maximum takeoff gross weights from greater than 75,000 pounds to 75,000 pounds or less, if the date of application was after January 14, 2011: No later than the latest of the following dates:

(i) July 14, 2012;

(ii) The date the certificate is issued; or

(iii) The date specified in the plan approved under § 25.571(b) for completion of the full-scale fatigue testing and demonstrating that widespread fatigue damage will not occur in the airplane structure.

(d) Compliance plan. Each person identified in paragraph (e) of this section must submit a compliance plan consisting of the following:

(1) A proposed project schedule, identifying all major milestones, for meeting the compliance dates specified in paragraph (c) of this section.

(2) A proposed means of compliance with paragraphs (b)(1) through (b)(4) of this section.

(3) A proposal for submitting a draft of all compliance items required by paragraph (b) of this section for review by the responsible Aircraft Certification Service office not less than 60 days before the compliance date specified in paragraph (c) of this section, as applicable.

(4) A proposal for how the LOV will be distributed.

(e) Compliance dates for compliance plans. The following persons must submit the compliance plan described in paragraph (d) of this section to the responsible Aircraft Certification Service office by the specified date.

(1) Holders of type certificates: No later than April 14, 2011.

(2) Applicants for TCs and amendments to TCs, with the exception of amendments to TCs specified in paragraphs (e)(4), (e)(5), or (e)(6) of this section, if the date of application was before January 14, 2011 but the TC or TC amendment was not issued before January 14, 2011: No later than April 14, 2011.

(3) Holders of either supplemental type certificates or amendments to TCs that increase maximum takeoff gross weights from 75,000 pounds or less to greater than 75,000 pounds: No later than April 14, 2011.

(4) Applicants for either STCs or amendments to TCs that increase maximum takeoff gross weights from 75,000 pounds or less to greater than 75,000 pounds, if the date of application was before January 14, 2011: No later than April 14, 2011.

(5) Applicants for either STCs or amendments to TCs that increase maximum takeoff gross weights from 75,000 pounds or less to greater than 75,000 pounds, if the date of application is on or after January 14, 2011: Within 90 days after the date of application.

(6) Applicants for either STCs or amendments to TCs that decrease maximum takeoff gross weights from greater than 75,000 pounds to 75,000 pounds or less, if the date of application is on or after January 14, 2011: Within 90 days after the date of application.

(f) Compliance plan implementation. Each affected person must implement the compliance plan as approved in compliance with paragraph (d) of this section.

(g) Exceptions. This section does not apply to the following airplane models:

(1) Bombardier BD-700.

(2) Bombardier CL-44.

(3) Gulfstream GV.

(4) Gulfstream GV-SP.

- (5) British Aerospace, Aircraft Group, and Societe Nationale Industrielle Aerospatiale Concorde Type 1.
- (6) British Aerospace (Commercial Aircraft) Ltd., Armstrong Whitworth Argosy A.W. 650 Series 101.
- (7) British Aerospace Airbus, Ltd., BAC 1-11.
- (8) BAE Systems (Operations) Ltd., BAe 146.
- (9) BAE Systems (Operations) Ltd., Avro 146.
- (10) Lockheed 300-50A01 (USAF C141A).
- (11) Boeing 707.
- (12) Boeing 720.
- (13) deHavilland D.H. 106 Comet 4C.
- (14) Ilyushin Aviation IL-96T.
- (15) Bristol Aircraft Britannia 305.
- (16) Avions Marcel Dassault-Breguet Aviation Mercure 100C.
- (17) Airbus Caravelle.
- (18) D & R Nevada, LLC, Convair Model 22.
- (19) D & R Nevada, LLC, Convair Model 23M.

## § 26.23

### **Extended limit of validity.**

(a) Applicability. Any person may apply to extend a limit of validity of the engineering data that supports the structural maintenance program (hereafter referred to as LOV) approved under § 25.571 of this subchapter, § 26.21, or this section. Extending an LOV is a major design change. The applicant must comply with the relevant provisions of subparts D or E of part 21 of this subchapter and paragraph (b) of this section.

(b) Extended limit of validity. Each person applying for an extended LOV must comply with the following requirements:

(1) Establish an extended LOV that corresponds to the period of time, stated as a number of total accumulated flight cycles or flight hours or both, during which it is demonstrated that widespread

fatigue damage will not occur in the airplane. This demonstration must include an evaluation of airplane structural configurations and be supported by test evidence and analysis at a minimum and, if available, service experience, or service experience and teardown inspection results, of high-time airplanes of similar structural design, accounting for differences in operating conditions and procedures. The airplane structural configurations to be evaluated include—

(i) All model variations and derivatives approved under the type certificate for which approval for an extension is sought; and

(ii) All structural modifications to and replacements for the airplane structural configurations specified in paragraph (b)(1)(i) of this section, mandated by airworthiness directive, up to the date of approval of the extended LOV.

(2) Establish a revision or supplement, as applicable, to the Airworthiness Limitations section (ALS) of the Instructions for Continued Airworthiness required by § 25.1529 of this subchapter, and submit it to the responsible Aircraft Certification Service office for approval. The revised ALS or supplement to the ALS must include the applicable extended LOV established under paragraph (b)(1) of this section.

(3) Develop the maintenance actions determined by the WFD evaluation performed in paragraph (b)(1) of this section to be necessary to preclude WFD from occurring before the airplane reaches the proposed extended LOV. These maintenance actions must be documented as airworthiness limitation items in the ALS and submitted to the responsible Aircraft Certification Service office for approval.

## § 26.31

### **Definitions.**

For purposes of this subpart—

(a) Fleet Average Flammability Exposure has the meaning defined in Appendix N of part 25 of this chapter.

(b) Normally Emptied means a fuel tank other than a Main Fuel Tank. Main Fuel Tank is defined in 14 CFR 25.981(b).

## § 26.33

### **Holders of type certificates: Fuel tank flammability.**

(a) Applicability. This section applies to U.S. type certificated transport category, turbine-powered airplanes, other than those designed solely for all-cargo operations, for which the State of

Manufacture issued the original certificate of airworthiness or export airworthiness approval on or after January 1, 1992, that, as a result of original type certification or later increase in capacity have:

(1) A maximum type-certificated passenger capacity of 30 or more, or

(2) A maximum payload capacity of 7,500 pounds or more.

(b) Flammability Exposure Analysis. (1) General. Within 150 days after December 26, 2008, holders of type certificates must submit for approval to the responsible Aircraft Certification Service office a flammability exposure analysis of all fuel tanks defined in the type design, as well as all design variations approved under the type certificate that affect flammability exposure. This analysis must be conducted in accordance with Appendix N of part 25 of this chapter.

(2) Exception. This paragraph (b) does not apply to—

(i) Fuel tanks for which the type certificate holder has notified the FAA under paragraph (g) of this section that it will provide design changes and service instructions for Flammability Reduction Means or an Ignition Mitigation Means (IMM) meeting the requirements of paragraph (c) of this section.

(ii) Fuel tanks substantiated to be conventional unheated aluminum wing tanks.

(c) Design Changes. For fuel tanks with a Fleet Average Flammability Exposure exceeding 7 percent, one of the following design changes must be made.

(1) Flammability Reduction Means (FRM). A means must be provided to reduce the fuel tank flammability.

(i) Fuel tanks that are designed to be Normally Emptied must meet the flammability exposure criteria of Appendix M of part 25 of this chapter if any portion of the tank is located within the fuselage contour.

(ii) For all other fuel tanks, the FRM must meet all of the requirements of Appendix M of part 25 of this chapter, except, instead of complying with paragraph M25.1 of this appendix, the Fleet Average Flammability Exposure may not exceed 7 percent.

(2) Ignition Mitigation Means (IMM). A means must be provided to mitigate the effects of an ignition of fuel vapors within the fuel tank such that no damage caused by an ignition will prevent continued safe flight and landing.

(d) Service Instructions. No later than December 27, 2010, holders of type certificates required by paragraph (c) of this section to make design changes must meet the requirements specified in either paragraph (d)(1) or (d)(2) of this section. The required service instructions must identify each airplane subject to the applicability provisions of paragraph (a) of this section.

(1) FRM. The type certificate holder must submit for approval by the responsible Aircraft Certification Service office design changes and service instructions for installation of fuel tank flammability reduction means (FRM) meeting the criteria of paragraph (c) of this section.

(2) IMM. The type certificate holder must submit for approval by the responsible Aircraft Certification Service office design changes and service instructions for installation of fuel tank IMM that comply with 14 CFR 25.981(c) in effect on December 26, 2008.

(e) Instructions for Continued Airworthiness (ICA). No later than December 27, 2010, holders of type certificates required by paragraph (c) of this section to make design changes must submit for approval by the responsible Aircraft Certification Service office, critical design configuration control limitations (CDCCL), inspections, or other procedures to prevent increasing the flammability exposure of any tanks equipped with FRM above that permitted under paragraph (c)(1) of this section and to prevent degradation of the performance of any IMM provided under paragraph (c)(2) of this section. These CDCCL, inspections, and procedures must be included in the Airworthiness Limitations Section (ALS) of the ICA required by 14 CFR 25.1529 or paragraph (f) of this section. Unless shown to be impracticable, visible means to identify critical features of the design must be placed in areas of the airplane where foreseeable maintenance actions, repairs, or alterations may compromise the critical design configuration limitations. These visible means must also be identified as a CDCCL.

(f) Airworthiness Limitations. Unless previously accomplished, no later than December 27, 2010, holders of type certificates affected by this section must establish an ALS of the maintenance manual or ICA for each airplane configuration evaluated under paragraph (b)(1) of this section and submit it to the responsible Aircraft Certification Service office for approval. The ALS must include a section that contains the CDCCL, inspections, or other procedures developed under paragraph (e) of this section.

(g) Compliance Plan for Flammability Exposure Analysis. Within 90 days after December 26, 2008, each holder of a type certificate required to comply with paragraph (b) of this section must submit to the responsible Aircraft Certification Service office a compliance plan consisting of the following:

(1) A proposed project schedule for submitting the required analysis, or a determination that compliance with paragraph (b) of this section is not required because design changes and service instructions for FRM or IMM will be developed and made available as required by this section.

(2) A proposed means of compliance with paragraph (b) of this section, if applicable.

(h) Compliance Plan for Design Changes and Service Instructions. Within 210 days after December 26, 2008, each holder of a type certificate required to comply with paragraph (d) of this section must submit to the responsible Aircraft Certification Service office a compliance plan consisting of the following:

(1) A proposed project schedule, identifying all major milestones, for meeting the compliance dates specified in paragraphs (d), (e) and (f) of this section.

(2) A proposed means of compliance with paragraphs (d), (e) and (f) of this section.

(3) A proposal for submitting a draft of all compliance items required by paragraphs (d), (e) and (f) of this section for review by the responsible Aircraft Certification Service office not less than 60 days before the compliance times specified in those paragraphs.

(4) A proposal for how the approved service information and any necessary modification parts will be made available to affected persons.

(i) Each affected type certificate holder must implement the compliance plans, or later revisions, as approved under paragraph (g) and (h) of this section.

## § 26.35

### **Changes to type certificates affecting fuel tank flammability.**

(a) Applicability. This section applies to holders and applicants for approvals of the following design changes to any airplane subject to 14 CFR 26.33(a):

(1) Any fuel tank designed to be Normally Emptied if the fuel tank installation was approved pursuant to a supplemental type certificate or a field approval before December 26, 2008;

(2) Any fuel tank designed to be Normally Emptied if an application for a supplemental type certificate or an amendment to a type certificate was made before December 26, 2008 and if the approval was not issued before December 26, 2008; and

(3) If an application for a supplemental type certificate or an amendment to a type certificate is made on or after December 26, 2008, any of the following design changes:

(i) Installation of a fuel tank designed to be Normally Emptied,

(ii) Changes to existing fuel tank capacity, or

(iii) Changes that may increase the flammability exposure of an existing fuel tank for which FRM or IMM is required by § 26.33(c).

(b) Flammability Exposure Analysis —(1) General. By the times specified in paragraphs (b)(1)(i) and (b)(1)(ii) of this section, each person subject to this section must submit for approval a flammability exposure analysis of the auxiliary fuel tanks or other affected fuel tanks, as defined in the type design, to the responsible Aircraft Certification Service office. This analysis must be conducted in accordance with Appendix N of part 25 of this chapter.

(i) Holders of supplemental type certificates and field approvals: Within 12 months of December 26, 2008,

(ii) Applicants for supplemental type certificates and for amendments to type certificates: Within 12 months after December 26, 2008, or before the certificate is issued, whichever occurs later.

(2) Exception. This paragraph does not apply to—

(i) Fuel tanks for which the type certificate holder, supplemental type certificate holder, or field approval holder has notified the FAA under paragraph (f) of this section that it will provide design changes and service instructions for an IMM meeting the requirements of § 25.981(c) in effect December 26, 2008; and

(ii) Fuel tanks substantiated to be conventional unheated aluminum wing tanks.

(c) Impact Assessment. By the times specified in paragraphs (c)(1) and (c)(2) of this section, each person subject to paragraph (a)(1) of this section holding an approval for installation of a Normally Emptied fuel tank on an airplane model listed in Table 1 of this section, and each person subject to paragraph (a)(3)(iii) of this section, must submit for approval to the responsible Aircraft Certification Service office an assessment of the fuel tank system, as modified by their design change. The assessment must identify any features of the design change that compromise any critical design configuration control limitation (CDCCL) applicable to any airplane on which the design change is eligible for installation.

(1) Holders of supplemental type certificates and field approvals: Before June 26, 2011.

(2) Applicants for supplemental type certificates and for amendments to type certificates: Before June 26, 2011 or before the certificate is issued, whichever occurs later.

(d) Design Changes and Service Instructions. By the times specified in paragraph (e) of this section, each person subject to this section must meet the requirements of paragraphs (d)(1) or (d)(2) of this section, as applicable.

(1) For holders and applicants subject to paragraph (a)(1) or (a)(3)(iii) of this section, if the assessment required by paragraph (c) of this section identifies any features of the design change that compromise any CDCCL applicable to any airplane on which the design change is eligible for installation, the holder or applicant must submit for approval by the responsible Aircraft Certification Service office design changes and service instructions for Flammability Impact Mitigation Means (FIMM) that would bring the design change into compliance with the CDCCL. Any fuel tank modified as required by this paragraph must also be evaluated as required by paragraph (b) of this section.

(2) Applicants subject to paragraph (a)(2), or (a)(3)(i) of this section must comply with the requirements of 14 CFR 25.981, in effect on December 26, 2008.

(3) Applicants subject to paragraph (a)(3)(ii) of this section must comply with the requirements of 14 CFR 26.33.

(e) Compliance Times for Design Changes and Service Instructions. The following persons subject to this section must comply with the requirements of paragraph (d) of this section at the specified times.

(1) Holders of supplemental type certificates and field approvals: Before December 26, 2012.

(2) Applicants for supplemental type certificates and for amendments to type certificates: Before December 26, 2012, or before the certificate is issued, whichever occurs later.

(f) Compliance Planning. By the applicable date specified in Table 2 of this section, each person subject to paragraph (a)(1) of this section must submit for approval by the responsible Aircraft Certification Service office compliance plans for the flammability exposure analysis required by paragraph (b) of this section, the impact assessment required by paragraph (c) of this section, and the design changes and service instructions required by paragraph (d) of this section. Each person's compliance plans must include the following:

(1) A proposed project schedule for submitting the required analysis or impact assessment.

(2) A proposed means of compliance with paragraph (d) of this section.

(3) For the requirements of paragraph (d) of this section, a proposal for submitting a draft of all design changes, if any are required, and Airworthiness Limitations (including CDCCLs) for review by the responsible Aircraft Certification Service office not less than 60 days before the compliance time specified in paragraph (e) of this section.

(4) For the requirements of paragraph (d) of this section, a proposal for how the approved service information and any necessary modification parts will be made available to affected persons.

(g) Each person subject to this section must implement the compliance plans, or later revisions, as approved under paragraph (f) of this section.

## § 26.37

### **Pending type certification projects: Fuel tank flammability.**

(a) Applicability. This section applies to any new type certificate for a transport category airplane, if the application was made before December 26, 2008, and if the certificate was not issued before December 26, 2008. This section applies only if the airplane would have—

(1) A maximum type-certificated passenger capacity of 30 or more, or

(2) A maximum payload capacity of 7,500 pounds or more.

(b) If the application was made on or after June 6, 2001, the requirements of 14 CFR 25.981 in effect on December 26, 2008, apply.

## § 26.39

### **Newly produced airplanes: Fuel tank flammability.**

(a) Applicability: This section applies to Boeing model airplanes specified in Table 1 of this section, including passenger and cargo versions of each model, when application is made for original certificates of airworthiness or export airworthiness approvals after December 27, 2010.

(b) Any fuel tank meeting all of the criteria stated in paragraphs (b)(1), (b)(2) and (b)(3) of this section must have flammability reduction means (FRM) or ignition mitigation means (IMM) that meet the requirements of 14 CFR 25.981 in effect on December 26, 2008.

(1) The fuel tank is Normally Emptied.

(2) Any portion of the fuel tank is located within the fuselage contour.

(3) The fuel tank exceeds a Fleet Average Flammability Exposure of 7 percent.

(c) All other fuel tanks that exceed an Fleet Average Flammability Exposure of 7 percent must have an IMM that meets 14 CFR 25.981(d) in effect on December 26, 2008, or an FRM that meets all of the requirements of Appendix M to this part, except instead of complying with paragraph M25.1 of that appendix, the Fleet Average Flammability Exposure may not exceed 7 percent.

## § 26.41

### **Definitions.**

Affects (or Affected) means structure has been physically repaired, altered, or modified, or the structural loads acting on the structure have been increased or redistributed.

Baseline structure means structure that is designed under the original type certificate or amended type certificate for that airplane model.

Damage Tolerance Evaluation (DTE) means a process that leads to a determination of maintenance actions necessary to detect or preclude fatigue cracking that could contribute to a catastrophic failure. As applied to repairs and alterations, a DTE includes the evaluation both of the repair or alteration and of the fatigue critical structure affected by the repair or alteration.

Damage Tolerance Inspection (DTI) means the inspection developed as a result of a DTE. A DTI includes the areas to be inspected, the inspection method, the inspection procedures, including acceptance and rejection criteria, the threshold, and any repeat intervals associated with those inspections. The DTI may specify a time limit when a repair or alteration needs to be replaced or modified. If the DTE concludes that DT-based supplemental structural inspections are not necessary, the DTI contains a statement to that effect.

DT data mean DTE documentation and the DTI.

DTE documentation means data that identify the evaluated fatigue critical structure, the basic assumptions applied in a DTE, and the results of a DTE.

Fatigue critical structure means airplane structure that is susceptible to fatigue cracking that could contribute to a catastrophic failure, as determined in accordance with § 25.571 of this chapter. Fatigue critical structure includes structure, which, if repaired or altered, could be susceptible to fatigue cracking and contribute to a catastrophic failure. Such structure may be part of the baseline structure or part of an alteration.

Implementation schedule consists of documentation that establishes the timing for accomplishing the necessary actions for developing DT data for repairs and alterations, and for incorporating those data into an operator's continuing airworthiness maintenance program. The documentation must identify times when actions must be taken as specific numbers of airplane flight hours, flight cycles, or both.

Published repair data mean instructions for accomplishing repairs, which are published for general use in structural repair manuals and service bulletins (or equivalent types of documents).

## § 26.43

### **Holders of and applicants for type certificates—Repairs.**

(a) Applicability. Except as specified in paragraph (g) of this section, this section applies to transport category, turbine powered airplane models with a type certificate issued after January 1, 1958, that as a result of original type certification or later increase in capacity have—

- (1) A maximum type certificated passenger seating capacity of 30 or more; or
- (2) A maximum payload capacity of 7,500 pounds or more.

(b) List of fatigue critical baseline structure. For airplanes specified in paragraph (a) of this section, the holder of or applicant for a type certificate must—

- (1) Identify fatigue critical baseline structure for all airplane model variations and derivatives approved under the type certificate; and
- (2) Develop and submit to the responsible Aircraft Certification Service office for review and approval, a list of the structure identified under paragraph (b)(1) of this section and, upon approval, make the list available to persons required to comply with § 26.47 and §§ 121.1109 and 129.109 of this chapter.

(c) Existing and future published repair data. For repair data published by a holder of a type certificate that is current as of January 11, 2008 and for all later published repair data, the holder of a type certificate must—

- (1) Review the repair data and identify each repair specified in the data that affects fatigue critical baseline structure identified under paragraph (b)(1) of this section;

(2) Perform a DTE and develop the DTI for each repair identified under paragraph (c)(1) of this section, unless previously accomplished;

(3) Submit the DT data to the responsible Aircraft Certification Service office or its properly authorized designees for review and approval; and

(4) Upon approval, make the DTI available to persons required to comply with §§ 121.1109 and 129.109 of this chapter.

(d) Future repair data not published. For repair data developed by a holder of a type certificate that are approved after January 11, 2008 and are not published, the type certificate holder must accomplish the following for repairs specified in the repair data that affect fatigue critical baseline structure:

(1) Perform a DTE and develop the DTI.

(2) Submit the DT data required in paragraph (d)(1) of this section for review and approval by the responsible Aircraft Certification Service office or its properly authorized designees.

(3) Upon approval, make the approved DTI available to persons required to comply with §§ 121.1109 and 129.109 of this chapter.

(e) Repair evaluation guidelines. Except for airplane models whose type certificate is issued after January 11, 2008, holders of a type certificate for each airplane model subject to this section must—

(1) Develop repair evaluation guidelines for operators' use that include—

(i) A process for conducting surveys of affected airplanes that will enable identification and documentation of all existing repairs that affect fatigue critical baseline structure identified under paragraph (b)(1) of this section and § 26.45(b)(2);

(ii) A process that will enable operators to obtain the DTI for repairs identified under paragraph (e)(1)(i) of this section; and

(iii) An implementation schedule for repairs covered by the repair evaluation guidelines. The implementation schedule must identify times when actions must be taken as specific numbers of airplane flight hours, flight cycles, or both.

(2) Submit the repair evaluation guidelines to the responsible Aircraft Certification Service office for review and approval.

(3) Upon approval, make the guidelines available to persons required to comply with §§ 121.1109 and 129.109 of this chapter.

(4) If the guidelines direct the operator to obtain assistance from the holder of a type certificate, make such assistance available in accordance with the implementation schedule.

(f) Compliance times. Holders of type certificates must submit the following to the responsible Aircraft Certification Service office or its properly authorized designees for review and approval by the specified compliance time:

(1) The identified list of fatigue critical baseline structure required by paragraph (b)(2) of this section must be submitted no later than 180 days after January 11, 2008 or before issuance of the type certificate, whichever occurs later.

(2) For published repair data that are current as of January 11, 2008, the DT data required by paragraph (c)(3) of this section must be submitted by June 30, 2009.

(3) For repair data published after January 11, 2008, the DT data required by paragraph (c)(3) of this section must be submitted before FAA approval of the repair data.

(4) For unpublished repair data developed after January 11, 2008, the DT data required by paragraph (d)(1) of this section must be submitted within 12 months of the airplane's return to service or in accordance with a schedule approved by the responsible Aircraft Certification Service office.

(5) The repair evaluation guidelines required by paragraph (e)(1) of this section must be submitted by December 30, 2009.

(g) Exceptions. The requirements of this section do not apply to the following transport category airplane models:

(1) Convair CV-240, 340, 440, if modified to include turbine engines.

(2) Vickers Armstrong Viscount, TCDS No. A-814.

(3) Douglas DC-3, if modified to include turbine engines, TCDS No. A-618.

(4) Bombardier CL-44, TCDS No. 1A20.

(5) Mitsubishi YS-11, TCDS No. A1PC.

(6) British Aerospace BAC 1-11, TCDS No. A5EU.

(7) Concorde, TCDS No. A45EU.

(8) deHavilland D.H. 106 Comet 4C, TCDS No. 7A10.

(9) deHavilland DHC-7, TCDS No. A20EA.

(10) VFW-Vereinigte Flugtechnische Werk VFW-614, TCDS No. A39EU.

(11) Ilyushin Aviation IL 96T, TCDS No. A54NM.

(12) Bristol Aircraft Britannia 305, TCDS No. 7A2.

(13) Handley Page Herald Type 300, TCDS No. A21N.

(14) Avions Marcel Dassault—Breguet Aviation Mercure 100C, TCDS No. A40EU.

(15) Airbus Caravelle, TCDS No. 7A6.

(16) Lockheed L-300, TCDS No. A250.

(17) Boeing 707-100/-200, TCDS No. 4A21.

(18) Boeing 707-300/-400, TCDS No. 4A26.

(19) Boeing 720, TCDS No. 4A28.

## § 26.45

### **Holders of type certificates—Alterations and repairs to alterations.**

(a) Applicability. This section applies to transport category airplanes subject to § 26.43.

(b) Fatigue critical alteration structure. For existing and future alteration data developed by the holder of a type certificate, the holder must—

(1) Review alteration data and identify all alterations that affect fatigue critical baseline structure identified under § 26.43(b)(1);

(2) For each alteration identified under paragraph (b)(1) of this section, identify any fatigue critical alteration structure;

(3) Develop and submit to the responsible Aircraft Certification Service office for review and approval a list of the structure identified under paragraph (b)(2) of this section; and

(4) Upon approval, make the list required in paragraph (b)(3) of this section available to persons required to comply with §§ 121.1109 and 129.109 of this chapter.

(c) DT Data. For existing and future alteration data developed by the holder of a type certificate that affect fatigue critical baseline structure identified under § 26.43(b)(1), unless previously accomplished, the holder must—

(1) Perform a DTE and develop the DTI for the alteration and fatigue critical baseline structure that is affected by the alteration;

(2) Submit the DT data developed in accordance with paragraphs (c)(1) of this section to the responsible Aircraft Certification Service office or its properly authorized designees for review and approval; and

(3) Upon approval, make the DTI available to persons required to comply with §§ 121.1109 and 129.109 of this chapter.

(d) DT Data for Repairs Made to Alterations. For existing and future repair data developed by a holder of a type certificate, the type certificate holder must—

(1) Review the repair data, and identify each repair that affects any fatigue critical alteration structure identified under paragraph (b)(2) of this section;

(2) For each repair identified under paragraph (d)(1) of this section, unless previously accomplished, perform a DTE and develop DTI;

(3) Submit the DT data developed in accordance with paragraph (d)(2) of this section to the responsible Aircraft Certification Service office or its properly authorized designees for review and approval; and

(4) Upon approval, make the DTI available to persons required to comply with §§ 121.1109 and 129.109 of this chapter.

(e) Compliance times. Holders of type certificates must submit the following to the responsible Aircraft Certification Service office or its properly authorized designees for review and approval by the specified compliance time:

(1) The list of fatigue critical alteration structure identified under paragraph (b)(3) of this section must be submitted—

(i) No later than 360 days after January 11, 2008, for alteration data approved before January 11, 2008.

(ii) No later than 30 days after March 12, 2010 or before initial approval of the alteration data, whichever occurs later, for alteration data approved on or after January 11, 2008.

(2) For alteration data developed and approved before January 11, 2008, the DT data required by paragraph (c)(2) of this section must be submitted by June 30, 2009.

(3) For alteration data approved on or after January 11, 2008, DT data required by paragraph (c)(2) of this section must be submitted before initial approval of the alteration data.

(4) For repair data developed and approved before January 11, 2008, the DT data required by paragraph (d)(2) of this section must be submitted by June 30, 2009.

(5) For repair data developed and approved after January 11, 2008, the DT data required by paragraph (d)(2) of this section must be submitted within 12 months after initial approval of the repair data and before making the DT data available to persons required to comply with §§ 121.1109 and 129.109 of this chapter.

# § 26.47

## **Holders of and applicants for a supplemental type certificate—Alterations and repairs to alterations.**

(a) Applicability. This section applies to transport category airplanes subject to § 26.43.

(b) Fatigue critical alteration structure. For existing structural alteration data approved under a supplemental certificate, the holder of the supplemental certificate must—

(1) Review the alteration data and identify all alterations that affect fatigue critical baseline structure identified under § 26.43(b)(1);

(2) For each alteration identified under paragraph (b)(1) of this section, identify any fatigue critical alteration structure;

(3) Develop and submit to the responsible Aircraft Certification Service office for review and approval a list of the structure identified under paragraph (b)(2) of this section; and

(4) Upon approval, make the list required in paragraph (b)(3) of this section available to persons required to comply with §§ 121.1109 and 129.109 of this chapter.

(c) DT Data. For existing and future alteration data developed by the holder of a supplemental type certificate that affect fatigue critical baseline structure identified under § 26.43(b)(1), unless previously accomplished, the holder of a supplemental type certificate must—

(1) Perform a DTE and develop the DTI for the alteration and fatigue critical baseline structure that is affected by the alteration;

(2) Submit the DT data developed in accordance with paragraphs (c)(1) of this section to the responsible Aircraft Certification Service office or its properly authorized designees for review and approval; and

(3) Upon approval, make the DTI available to persons required to comply with §§ 121.1109 and 129.109 of this chapter.

(d) DT Data for Repairs Made to Alterations. For existing and future repair data developed by the holder of a supplemental holder of a supplemental type certificate, the holder of a supplemental type certificate must—

(1) Review the repair data, and identify each repair that affects any fatigue critical alteration structure identified under paragraph (b)(2) of this section;

(2) For each repair identified under paragraph (d)(1) of this section, unless previously accomplished, perform a DTE and develop DTI;

(3) Submit the DT data developed in accordance with paragraph (d)(2) of this section to the responsible Aircraft Certification Service office or its properly authorized designees for review and approval; and

(4) Upon approval, make the DTI available to persons required to comply with §§ 121.1109 and 129.109 of this chapter.

(e) Compliance times. Holders of supplemental type certificates must submit the following to the responsible Aircraft Certification Service office or its properly authorized designees for review and approval by the specified compliance time:

(1) The list of fatigue critical alteration structure required by paragraph (b)(3) of this section must be submitted no later than 360 days after January 11, 2008.

(2) For alteration data developed and approved before January 11, 2008, the DT data required by paragraph (c)(2) of this section must be submitted by June 30, 2009.

(3) For alteration data developed after January 11, 2008, the DT data required by paragraph (c)(2) of this section must be submitted before approval of the alteration data and making it available to persons required to comply with §§ 121.1109 and 129.109 of this chapter.

(4) For repair data developed and approved before January 11, 2008, the DT data required by paragraph (d)(2) of this section must be submitted by June 30, 2009.

(5) For repair data developed and approved after January 11, 2008, the DT data required by paragraph (d)(2) of this section, must be submitted within 12 months after initial approval of the repair data and before making the DT data available to persons required to comply with §§ 121.1109 and 129.109 of this chapter.

## § 26.49

### **Compliance plan.**

(a) Compliance plan. Except for applicants for type certificates and supplemental type certificates whose applications are submitted after January 11, 2008, each person identified in §§ 26.43, 26.45, and 26.47, must submit a compliance plan consisting of the following:

(1) A project schedule identifying all major milestones for meeting the compliance times specified in §§ 26.43(f), 26.45(e), and 26.47(e), as applicable.

(2) A proposed means of compliance with §§ 26.43, 26.45, and 26.47, as applicable.

(3) A plan for submitting a draft of all compliance items required by this subpart for review by the responsible Aircraft Certification Service office not less than 60 days before the applicable compliance date.

(b) Compliance dates for compliance plans. The following persons must submit the compliance plan described in paragraph (a) of this section to the responsible Aircraft Certification Service office for approval on the following schedule:














(1) For holders of type certificates, no later than 90 days after January 11, 2008.

(2) For holders of supplemental type certificates no later than 180 days after January 11, 2008.

(3) For applicants for changes to type certificates whose application are submitted before January 11, 2008, no later than 180 days after January 11, 2008.

(c) Compliance Plan Implementation. Each affected person must implement the compliance plan as approved in compliance with paragraph (a) of this section.



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