

**GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
 TRANSPORT CATEGORY AIRPLANES**

TABLE OF CONTENTS

**GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
 TRANSPORT CATEGORY AIRPLANES**

SUBPART A – GENERAL

§ 26.1 Purpose and Scope	2
--------------------------------	---

SUBPART B – ENHANCED AIRWORTHINESS PROGRAM FOR AIRPLANE SYSTEMS

§ 26.11 Electrical Wiring Interconnection Systems Maintenance Program (EWIS)	3
--	---

SUBPART C – AGING AIRPLANE SAFETY: WIDESPREAD FATIGUE DAMAGE

§ 26.21 Limit of Validity	4
§ 26.23 Extended Limit of Validity	10

SUBPART D – FUEL TANK FLAMMABILITY

§ 26.31 Definitions.	12
§ 26.33 Holders of Type Certificates: Fuel Tank Flammability.	12
§ 26.35 Changes to Type Certificates Affecting Fuel Tank Flammability.	13
§ 26.37 Pending Type Certification Projects: Fuel Tank Flammability.	16
§ 26.39 Newly Produced Airplanes: Fuel Tank Flammability.	16

**SUBPART E – AGING AIRPLANE SAFETY: DAMAGE TOLERANCE DATA FOR
 REPAIRS AND ALTERATIONS**

§ 26.43 Holders of and Applicants for Type Certificates: Repairs	18
§ 26.45 Holders of Type Certificates: Alterations and Repairs to Alterations	20
§ 26.47 Holders of and Applicants for a Supplemental Type Certificate: Alterations and Repairs to Alterations	22

GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
TRANSPORT CATEGORY AIRPLANES

SUBPART A – GENERAL

§ 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 (TC) and supplemental type certificates (STC).

(2) Applicants for TCs and STCs 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 TCs 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 General Authority of Civil Aviation Regulation (GACAR) Part 25 that is adopted concurrently or after that airworthiness requirement.

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

(e) For the purposes of this part, the “date of application” (or similar phrases) means the date of application to the Federal Aviation Administration (FAA) of the United States, the state of design or the General Authority of Civil Aviation (GACA), whichever is earlier.

GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
TRANSPORT CATEGORY AIRPLANES

**SUBPART B – ENHANCED AIRWORTHINESS PROGRAM FOR AIRPLANE
SYSTEMS**

§ 26.11 Electrical Wiring Interconnection Systems Maintenance Program (EWIS).

(a) This section applies to transport category, turbine-powered airplanes 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 3 400 kg or more.

(b) Unless compliance with GACAR § 25.1729 is required or elected, applicants for amendments to TCs and STCs must—

(1) Evaluate whether the design change for which approval is sought necessitates a revision to the ICA required to comply with the requirements of Appendix H to GACAR Part 25, paragraphs H25.5(a)(1) and (b). If so, the applicant must develop and submit the necessary revisions for review and approval by the FAA Oversight Office, the GACA, or the State of Design.

(2) Ensure that any revised Electrical Wiring Interconnection Systems ICA remain compatible with any fuel tank system ICA previously developed and any redundant requirements between them are minimized.

GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
TRANSPORT CATEGORY AIRPLANES

SUBPART C – AGING AIRPLANE SAFETY: WIDESPREAD FATIGUE DAMAGE

§ 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 mass greater than 34 020 kg. This section also applies to transport category, turbine-powered airplanes, if a design change approval for which application is made after 14 January 2011, has the effect of reducing the maximum takeoff gross mass from greater than 34 020 kg to 34 020 kg or less.

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

(1) Establish an LOV of the engineering data that supports the structural maintenance program 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 (WFD) 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 TC; 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 14 January 2011.

(2) If the LOV depends on performance of maintenance actions for which service information has not been mandated by airworthiness directive as of 14 January 2011, submit the following to the FAA Oversight Office, the GACA, or the State of Design:

(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.

GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
TRANSPORT CATEGORY AIRPLANES

(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 FAA Oversight Office or the GACA 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 FAA Oversight Office or the GACA 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 TCs of airplane models identified in Table 26–1: No later than the applicable date identified in Table 26–1.

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

(i) 14 January 2016;

(ii) The date the certificate is issued; or

(iii) The date specified in the plan approved under GACAR § 25.571(b) for completion of the full-scale fatigue testing and demonstrating that WFD 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 (7) of this section, if the original TC was issued before 14 January 2011: No later than the latest of the following dates:

(i) 14 January 2016;

GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
TRANSPORT CATEGORY AIRPLANES

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

(iii) The date specified in the plan approved under GACAR § 25.571(b) for completion of the full-scale fatigue testing and demonstrating that WFD 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 (7) of this section, if the application for the original TC was made before 14 January 2011 but the TC was not issued before 14 January 2011: No later than the latest of the following dates:

(i) 14 January 2016;

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

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

(5) Holders of either STCs or amendments to TCs that increase maximum takeoff gross mass from 34 020 kg or less to greater than 34 020 kg: No later than 14 July 2012.

(6) Applicants for either STCs or amendments to TCs that increase maximum takeoff gross mass from 34 020 kg or less to greater than 34 020 kg: No later than the latest of the following dates:

(i) 14 July 2012;

(ii) The date the certificate is issued; or

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

(7) Applicants for either STCs or amendments to TCs that decrease maximum takeoff gross mass from greater than 34 020 kg to 34 020 kg or less, if the date of application was after 14 January 2011: No later than the latest of the following dates:

GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
TRANSPORT CATEGORY AIRPLANES

(i) 14 July 2012;

(ii) The date the certificate is issued; or

(iii) The date specified in the plan approved under GACAR § 25.571(b) for completion of the full-scale fatigue testing and demonstrating that WFD 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 (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 FAA Oversight Office or the GACA not less than 60 working 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) For applications dated on or after 14 January 2011, applicants for STCs or amendments to TCs that—

(1) Increase maximum takeoff gross mass from 34 020 kg or less to greater than 34 020 kg, or

(2) Decrease maximum takeoff gross mass from greater than 34 020 kg to 34 020 kg or less, must submit the compliance plan described in paragraph (d) of this section to the FAA Oversight Office or the GACA within 90 working 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.

**GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
TRANSPORT CATEGORY AIRPLANES**

- (2) Gulfstream GV.
- (3) Gulfstream GV–SP.
- (4) BAE Systems (Operations) Ltd., BAe 146.
- (5) BAE Systems (Operations) Ltd., Avro 146.
- (6) Boeing 707.
- (7) Boeing 720.
- (8) British Aircraft Corporation (BAC) 1-111.

Table 26-1. Compliance Dates for Affected Airplanes

Airplane model (all existing ¹ models)	Compliance date— (months after 14 January 2011)
Airbus:	
A300 Series	18
A310 Series, A300-600 Series	48
A318 Series	48
A319 Series	48
A320 Series	48
A321 Series	48
A330–200, –200 Freighter, –300 Series	48
A340–200, –300, –500, –600 Series	48
A380–800 Series	60
Boeing:	
717	48

**GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
TRANSPORT CATEGORY AIRPLANES**

Airplane model (all existing ¹ models)	Compliance date— (months after 14 January 2011)
727 (all series)	18
737 (Classics): 737–100, –200, –200C, –300, –400, –500	18
737 (NG): 737–600, –700, –700C, –800, –900, –900ER	48
747 (Classics): 747–100, –100B, –100B SUD, –200B, –200C, –200F, –300, 747SP, 747SR	18
747–400: 747–400, –400D, –400F	48
757 (all series)	48
767 (all series)	48
777–200, –300	48
777–200LR, 777–300ER, 777F	60
Bombardier:	
CL–600: 2D15 (Regional Jet Series 705), 2D24 (Regional Jet Series 900)	60
Embraer:	
ERJ 170 (all series)	60
ERJ 190 (all series)	60
Fokker:	
F.28 Mark 0070, Mark 0100	18
Lockheed:	
L–1011 (all series)	18
188	18
382 (all series)	18
McDonnell Douglas:	
DC–8, –8F (all series)	18
DC–9 (all series)	18

GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
TRANSPORT CATEGORY AIRPLANES

Airplane model (all existing ¹ models)	Compliance date— (months after 14 January 2011)
MD-80 (DC-9-81, -82, -83, -87, MD-88)	18
MD-90 (all series)	48
DC-10 (all series)	18
MD-10	48
MD-11, -11F	48
All Other Airplane Models Listed on a Type Certificate as of 14 January 2011	60

¹Type certificated as of January 14, 2011

§ 26.23 Extended Limit of Validity.

(a) Applicability. Any person may apply to extend an LOV of the engineering data that supports the structural maintenance program approved under GACAR § 25.571, 26.21, or this section. Extending an LOV is a major design change. The applicant must comply with the relevant provisions of Subparts C or D of GACAR Part 21 and paragraph (b) of this section.

(b) Extended LOV. 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 WFD 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 TC for which approval for an

GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
TRANSPORT CATEGORY AIRPLANES

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 ALS of the ICA required by GACAR § 25.1529, and submit it to the FAA Oversight Office or the GACA 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. The applicant must document these maintenance actions as airworthiness limitation items in the ALS and submit them to the FAA Oversight Office or the GACA for approval.

GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
TRANSPORT CATEGORY AIRPLANES

SUBPART D – FUEL TANK FLAMMABILITY

§ 26.31 Definitions.

For purposes of this subpart—

- (a) Fleet Average Flammability Exposure has the meaning defined in Appendix N of GACAR Part 25.
- (b) Normally Emptied means a fuel tank other than a Main Fuel Tank. Main Fuel Tank is defined in GACAR § 25.981(b).

§ 26.33 Holders of Type Certificates: Fuel Tank Flammability.

(a) **Applicability.** This section applies to 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 1 January 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 3 400 kg or more.

(b) **Design changes.** For fuel tanks, other than conventional unheated aluminum wing tanks, with a Fleet Average Flammability Exposure, as determined in accordance with Appendix N to GACAR Part 25, that exceeds 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 GACAR Part 25 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 GACAR Part 25, except, instead of complying with paragraph M25.1 of that appendix,

GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
TRANSPORT CATEGORY AIRPLANES

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.

(c) *Service instructions*. Holders of TCs required by paragraph (b) of this section to make design changes must meet the requirements specified in either paragraph (c)(1) or (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 TC holder must submit for approval by the FAA Oversight Office or the GACA design changes and service instructions for installation of fuel tank FRM meeting the criteria of paragraph (b) of this section.

(2) *IMM*. The TC holder must submit for approval by the FAA Oversight Office or the GACA design changes and service instructions for installation of fuel tank IMM that comply with GACAR § 25.981(c) in effect on or after 26 December 2008.

(d) *Instructions for Continued Airworthiness (ICA)*. Holders of TCs required by paragraph (b) of this section to make design changes must submit for approval by the FAA Oversight Office or by the GACA, Critical Design Configuration Control Limitations (CDCCL), inspections, or other procedures to prevent increasing the flammability exposure of any fuel tanks equipped with FRM above that permitted under paragraph (b)(1) of this section and to prevent degradation of the performance of any IMM provided under paragraph (b)(2) of this section. Such holders of TCs must include these CDCCL, inspections, and procedures in the Airworthiness Limitations Section (ALS) of the ICA required by GACAR § 25.1529 or paragraph (e) 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.

(e) *Airworthiness limitations*. Holders of TCs affected by this section must establish an ALS of the maintenance manual or ICA and submit it to the FAA Oversight Office or the GACA for approval. The ALS must include a section that contains the CDCCL, inspections, or other procedures developed under paragraph (d) of this section.

GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
TRANSPORT CATEGORY AIRPLANES

§ 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 GACAR § 26.33(a):

- (1) Any fuel tank designed to be Normally Emptied if the fuel tank installation was approved pursuant to an STC or an FAA field approval before 26 December 2008;
- (2) Any fuel tank designed to be Normally Emptied if an application for an STC or an amendment to a TC was made before 26 December 2008 and if the approval was not issued before 26 December 2008; and
- (3) If an application for an STC or an amendment to a TC is made on or after 26 December 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 GACAR § 26.33(c).

(b) **Flammability exposure analysis.**

- (1) **General.** 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 FAA Oversight Office or the GACA. This analysis must be conducted in accordance with Appendix N of GACAR Part 25.
- (2) Applicants for an STC or amended TC must comply with this paragraph before issuance of such STC or amended TC.
- (3) **Exception.** This paragraph does not apply to—
 - (i) Fuel tanks for which the TC holder, STC holder, or FAA field approval holder will provide design changes and service instructions for an IMM meeting the requirements of Title 14, Code of Federal Regulations of the United States § 25.981(c) in effect 26

**GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
 TRANSPORT CATEGORY AIRPLANES**

December 2008, or any subsequent amendment thereof; and

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

(c) **Impact assessment.** 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 26–2 , and each person subject to paragraph (a)(3)(iii) of this section, must submit for approval to the FAA Oversight Office or the GACA 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 CDCCL applicable to any airplane on which the design change is eligible for installation.

Applicants for STCs and for amendments to TCs must comply with this paragraph before issuance of the certificate.

Table 26-2

Model—Boeing and Airbus
737 Series
747 Series
757 Series
767 Series
777 Series
A300, A310 Series
A318, A319, A320, A321 Series
A330, A340 Series

(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 (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

GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR TRANSPORT CATEGORY AIRPLANES

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 FAA Oversight Office or the GACA design changes and service instructions for Flammability Impact Mitigation Means 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 GACAR § 25.981 in effect on or after 26 December 2008.

(3) Applicants subject to paragraph (a)(3)(ii) of this section must comply with the requirements of GACAR § 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 STCs and FAA field approvals: Before 26 December 2012.

(2) Applicants for STCs and for amendments to TCs: Before 26 December 2012, or before issuance of the certificate, whichever occurs later.

§ 26.37 Pending Type Certification Projects: Fuel Tank Flammability.

(a) **Applicability.** This section applies to any new TC for a transport category airplane, if the application was made before 26 December 2008, and if the certificate was not issued before 26 December 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 3 400 kg or more.

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

§ 26.39 Newly Produced Airplanes: Fuel Tank Flammability.

GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
TRANSPORT CATEGORY AIRPLANES

(a) **Applicability:** This section applies to Boeing model airplanes specified in Table 26–3, including passenger and cargo versions of each model, when application is made for original certificates of airworthiness or export airworthiness approvals after 27 December 2010.

TABLE 26-3

Model—Boeing
737 Series
747 Series
767 Series
777 Series

(b) Any fuel tank meeting all of the criteria stated in paragraphs (b)(1), (2) and (3) of this section must have FRM or IMM that meet the requirements of GACAR § 25.981.

- (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 a Fleet Average Flammability Exposure of 7 percent must have an IMM that meets GACAR § 25.981(d) in effect on or after 26 December 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.

GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
TRANSPORT CATEGORY AIRPLANES

**SUBPART E – AGING AIRPLANE SAFETY: DAMAGE TOLERANCE DATA FOR
REPAIRS AND ALTERATIONS**

§ 26.43 Holders of and Applicants for Type Certificates: Repairs.

(a) **Applicability.** This section applies to transport category, turbine-powered airplane models 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 3 400 kg 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 TC must—

- (1) Identify fatigue-critical baseline structure for all airplane model variations and derivatives approved under the TC; and
- (2) Develop and submit to the FAA Oversight Office or the GACA 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 GACAR §§ 26.47 and 121.469.

(c) **Published repair data.** For repair data published by a holder of a TC, the holder of a TC 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 Damage Tolerance Evaluation (DTE) and develop the Damage Tolerance Inspection (DTI) for each repair identified under paragraph (c)(1) of this section, unless previously accomplished;
- (3) Submit the damage tolerance (DT) data to the FAA Oversight Office, its properly authorized FAA designees, or the GACA for review and approval; and
- (4) Upon approval, make the DTI available to persons required to comply with GACAR § 121.469.

GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
TRANSPORT CATEGORY AIRPLANES

(d) **Unpublished repair data.** For repair data developed by a holder of a TC that are not published, the TC 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 FAA Oversight Office, its properly authorized FAA designees or the GACA.
- (3) Upon approval, make the approved DTI available to persons required to comply with GACAR § 121.469.

(e) **Repair evaluation guidelines.** Except for airplane models whose TC is issued after 11 January 2008, holders of a TC 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 GACAR § 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 FAA Oversight Office or the GACA for review and approval.
- (3) Upon approval, make the guidelines available to persons required to comply with GACAR § 121.469.
- (4) If the guidelines direct the operator to obtain assistance from the holder of a TC, make such assistance available in accordance with the implementation schedule.

GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
TRANSPORT CATEGORY AIRPLANES

(f) **Compliance times.** Holders of TCs must submit the following to the FAA Oversight Office, its properly authorized designees, or the GACA 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 before issuance of the TC.
- (2) For repair data published after 11 January 2008, the DT data required by paragraph (c)(3) of this section must be submitted before the FAA or the GACA approves the repair data.
- (3) For unpublished repair data developed after 11 January 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 FAA Oversight Office or the GACA.

§ 26.45 Holders of Type Certificates: Alterations and Repairs to Alterations.

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

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

- (1) Review alteration data and identify all alterations that affect fatigue-critical baseline structure identified under GACAR § 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 FAA Oversight Office or the GACA 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 GACAR § 121.469.

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

GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
TRANSPORT CATEGORY AIRPLANES

(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 FAA Oversight Office, its properly authorized FAA designees, or the GACA for review and approval; and

(3) Upon approval, make the DTI available to persons required to comply with GACAR § 121.469.

(d) ***DT data for repairs made to alterations.*** For existing and future repair data developed by a holder of a TC, the TC 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 FAA Oversight Office, its properly authorized FAA designees, or the GACA for review and approval; and

(4) Upon approval, make the DTI available to persons required to comply with GACAR § 121.469.

(e) ***Compliance times.*** Holders of TCs must submit the following to the FAA Oversight Office, its properly authorized FAA designees or the GACA 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 before initial approval of the alteration data.

(2) For alteration data, DT data required by paragraph (c)(2) of this section must be submitted before initial approval of the alteration data.

(3) For repair data the DT data required by paragraph (d)(2) of this section must be submitted

GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
TRANSPORT CATEGORY AIRPLANES

within 12 months after initial approval of the repair data and before making the DT data available to persons required to comply with GACAR § 121.469.

§ 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 GACAR § 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 GACAR § 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 FAA Oversight Office or the GACA 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 GACAR § 121.469.

(c) **DT data.** For existing and future alteration data developed by the holder of an STC that affect fatigue-critical baseline structure identified under GACAR § 26.43(b)(1), unless previously accomplished, the holder of an STC must—

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

(2) Submit the DT data developed in accordance with paragraphs (c)(1) of this section to the FAA Oversight Office, its properly authorized FAA designees or the GACA for review and approval; and

(3) Upon approval, make the DTI available to persons required to comply with GACAR § 121.469.

(d) **DT data for repairs made to alterations.** For existing and future repair data developed by the

GACAR PART 26 – CONTINUED AIRWORTHINESS AND SAFETY IMPROVEMENTS FOR
TRANSPORT CATEGORY AIRPLANES

holder of an STC, the holder of an STC 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 FAA Oversight Office, its properly authorized FAA designees or the GACA for review and approval; and

(4) Upon approval, make the DTI available to persons required to comply with GACAR § 121.469.

(e) **Compliance times.** Holders of STCs must submit the following to the FAA Oversight Office, its properly authorized FAA designees or the GACA for review and approval by the specified compliance time:

(1) For alteration data, 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 GACAR § 121.469.

(2) For repair data, 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 GACAR § 121.469.