FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES
LARGE AIRCRAFT

BIWEEKLY 2010-02

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Federal Aviation Administration
Regulatory Support Division
Delegation and Airworthiness Programs Branch, AIR-140
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LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
Biweekly 2010-01			
2008-04-11 R1		Boeing	707-100 long body, -200, -100B long body, and -100B short body series airplanes; Model 707-300, -300B, -300C, and -400 series airplanes; and Model 720 and 720B
2008-09-12 R1		Bombardier	CL-600-2B19 (Regional Jet Series 100 & 440)
2008-10-09 R1		Boeing	737-100, -200, -200C, -300, -400, and -500
2008-11-01 R1		Boeing	767-200, -300, -300F, and -400ER
2009-20-11	Cor	Boeing	737-300, -400, and -500
2009-24-11		General Electric	See AD
2009-26-03		Boeing	See AD
2009-26-04		Boeing	737-600, -700, -700C, -800, and -900
2009-26-10		Airbus	A380-841, -842, and -861
2009-26-12		Engine Components, Inc. (ECi)	See AD
2009-26-14		CONSTRUCCIONES AERONAUTICAS, S.A. (CASA)	CN-235, CN-235-100, CN-235-200, and CN-235-300
2009-26-15		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, -100 SU, -200 LR, -200 STD, and -200 SU airplanes, certificated in any category, serial numbers 17000156 through 17000169 inclusive; and Model ERJ 190-100 LR, -100 IGW, -100 STD, -200 STD, -200 LR, and -200 IGW
2009-26-16		McDonnell Douglas	MD-11 and MD-11F
2009-26-17		MCDonnell	Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F (KC-10A and KDC-10), DC-10-40, and DC-10-40F airplanes, and MD-10-10F and MD-10-30F
Biweekly 2010-02			
2008-10-06 R1		Boeing	747-400, -400D, and -400F
2008-10-10 R1		Boeing	737-600, -700, -700C, -800, and -900
2009-26-06		Honeywell International Inc	Engine: ALF502L and ALF502R series, and LF507-1F and LF507-1H
2009-26-09	S 2007-05-16	General Electric Company	Engine: CF34-1A, -3A, -3A1, -3A2, -3B, and -3B1
2010-01-01	S 2006-05-02	Boeing	747-200F, 747-200C, 747-400, 747-400D, and 747-400F
2010-01-04	S 2009-24-11	General Electric Company	Engine: CF34-1A, CF34-3A, CF34-3A1, CF34-3A2, CF34-3B, and CF34-3B1
2010-01-03		Fire Fighting Enterprises Limited	See AD
2010-01-05		CFM International, S.A	Engine: See AD
2010-01-06		Bombardier, Inc.	DHC-8-400, DHC-8-401, and DHC-8-402
2010-01-07		Airbus	A340-211, -212, -213, -311, -312, -313, -541, and -642
2010-01-08		Boeing	737-600, -700, and -800
2010-01-09		Boeing	737-300, -400, and -500
2010-01-11		Fokker Services B.V.	F.28 Mark 0070 and Mark 0100
2010-01-12		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, -100 SU, -200 LR, -200 STD, and -200 SU
2010-02-02		Dassault	Falcon 7X
2010-02-03		Airbus	A340-211, -212, -213, -311, -312, and -313
2010-02-04		Boeing	737-600, -700, -700C, -800, -900, and -900ER

2008-10-06 R1 The Boeing Company: Amendment 39-16160. Docket No. FAA-2009-1222; Directorate Identifier 2009-NM-153-AD.

Effective Date

(a) This airworthiness directive (AD) is effective January 22, 2010.

Affected ADs

(b) This AD revises AD 2008-10-06, Amendment 39-15512.

Applicability

(c) This AD applies to The Boeing Company Model 747-400, -400D, and -400F series airplanes, certificated in any category; with an original standard airworthiness certificate or original export certificate of airworthiness issued before April 12, 2006.

Note 1: Airplanes with an original standard airworthiness certificate or original export certificate of airworthiness issued on or after April 12, 2006, must be already in compliance with the airworthiness limitations specified in this AD because those limitations were applicable as part of the airworthiness certification of those airplanes.

Note 2: This AD requires revisions to certain operator maintenance documents to include new inspections. Compliance with these inspections is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by these inspections, the operator may not be able to accomplish the inspections described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance (AMOC) according to paragraph (l) of this AD. The request should include a description of changes to the required inspections that will ensure the continued operational safety of the airplane.

Unsafe Condition

(d) This AD results from a design review of the fuel tank systems. We are issuing this AD to prevent the potential for ignition sources inside fuel tanks caused by latent failures, alterations, repairs, or maintenance actions, which, in combination with flammable fuel vapors, could result in a fuel tank explosion and consequent loss of the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Service Information Reference

(f) The term "Revision March 2008 of the MPD," as used in this AD, means Boeing Temporary Revision (TR) 09-010, dated March 2008. Boeing TR 09-010 is published as Section 9 of the Boeing 747-400 Maintenance Planning Data (MPD) Document, D621U400-9, Revision March 2008.

Restatement of AD 2008-10-06, With Revised Compliance Method

Maintenance Program Revision

(g) Before December 16, 2008, revise the FAA-approved maintenance program by incorporating the information in the subsections specified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD; except that the initial inspections specified in Table 1 of this AD must be done at the compliance times specified in Table 1.

(1) Subsection B, "AIRWORTHINESS LIMITATIONS (AWLs)–SYSTEMS," of Boeing TR 09-010, dated March 2008; or Section 9, Revision April 2008, or March 2009, of the Boeing 747-400 Maintenance Planning Data (MPD) Document, D621U400-9.

(2) Subsection C, "PAGE FORMAT: FUEL SYSTEMS AIRWORTHINESS LIMITATIONS," of Boeing TR 09-010, dated March 2008; or Section 9, Revision April 2008, or March 2009, of the Boeing 747-400 MPD, Document, D621U400-9.

(3) Subsection D, "AIRWORTHINESS LIMITATIONS–FUEL SYSTEMS," AWLs No. 28-AWL-01 through No. 28-AWL-23 inclusive, of Boeing TR 09-010, dated March 2008; or Section 9, Revision April 2008, or March 2009, of the Boeing 747-400 MPD Document, D621U400-9. As an optional action, AWLs No. 28-AWL-24 through No. 28-AWL-29 inclusive, as identified in Subsection D of Boeing TR 09-010, Revision March 2008; or Section 9, Revision April 2008, or March 2009, of the Boeing 747-400 MPD Document, D621U400-9; also may be incorporated into the FAA-approved maintenance program.

Initial Inspections and Repair if Necessary

(h) Do the inspections specified in Table 1 of this AD at the compliance time specified in Table 1 of this AD, and repair any discrepancy, in accordance with Subsection D of Boeing TR 09-010 dated March 2008; or Section 9, Revision April 2008, or March 2009, of the Boeing 747-400 MPD Document, D621U400-9. The repair must be done before further flight. Accomplishing the inspections identified in Table 1 of this AD as part of an FAA-approved maintenance program before the applicable compliance time specified in Table 1 of this AD constitutes compliance with the requirements of this paragraph.

Note 3: For the purposes of this AD, a detailed inspection is: "An intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirror, magnifying lenses, etc., may be necessary. Surface cleaning and elaborate procedures may be required."

Note 4: For the purposes of this AD, a special detailed inspection is: "An intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. The examination is likely to make extensive use of specialized inspection techniques and/or equipment. Intricate cleaning and substantial access or disassembly procedure may be required."

Table 1 – Initial Inspections

AWL No.	Description	Compliance Time (whichever occurs later)	
		Threshold	Grace Period
28-AWL-01	A detailed inspection of external wires over the center fuel tank for damaged or loose clamps, wire chafing, and wire bundles in contact with the surface of the center fuel tank	Within 144 months since the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness	Within 72 months after June 12, 2008 (the effective date of AD 2008-10-06)
28-AWL-03	A special detailed inspection of the lightning shield to ground termination on the out-of-tank fuel quantity indicating system to verify functional integrity	Within 144 months since the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness	Within 24 months after June 12, 2008 (the effective date of AD 2008-10-06)
28-AWL-10	A special detailed inspection of the fault current bond of the fueling shutoff valve actuator of the center wing tank to verify electrical bond	Within 144 months since the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness	Within 60 months after June 12, 2008 (the effective date of AD 2008-10-06)

Incorporation of Additional AWLs for Certain Airplanes

(i) For Model 747-400 series airplanes equipped with an auxiliary fuel tank: Before December 16, 2008, revise the FAA-approved maintenance program by incorporating AWLs No. 28-AWL-30, No. 28-AWL-31, and No. 28-AWL-32 of Subsection D of Boeing TR 09-010, dated March 2008; or Section 9, Revision April 2008, or March 2009, of the Boeing 747-400 MPD Document, D621U400-9.

No Alternative Inspections, Inspection Intervals, or Critical Design Configuration Control Limitations (CDCCLs)

(j) After accomplishing the applicable actions specified in paragraphs (g), (h), and (i) of this AD, no alternative inspections, inspection intervals, or CDCCLs may be used unless the inspections, intervals, or CDCCLs are approved as an AMOC in accordance with the procedures specified in paragraph (l) of this AD.

Credit for Actions Done According to Previous Revisions of the MPD

(k) Actions done before June 12, 2008, in accordance with Section 9 of the Boeing 747-400 MPD Document, D621U400-9, Revision 23, dated March 2006; Revision 24, dated June 2006; Revision November 2006; Revision December 2006; Revision December 2006 R1; Revision May 2007; Revision October 2007; or Revision November 2007; are acceptable for compliance with the corresponding requirements of paragraphs (g) and (h) of this AD.

New Information

Explanation of CDCCL Requirements

Note 5: Notwithstanding any other maintenance or operational requirements, components that have been identified as airworthy or installed on the affected airplanes before the revision of the FAA-approved maintenance program, as required by paragraph (g) of this AD, do not need to be reworked in accordance with the CDCCLs. However, once the FAA-approved maintenance program has been revised, future maintenance actions on these components must be done in accordance with the CDCCLs.

Alternative Methods of Compliance (AMOCs)

(l)(1) The Manager, Seattle Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Judy Coyle, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6497; fax (425) 917-6590. Or, e-mail information to 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

(3) AMOCs approved previously in accordance with AD 2008-10-06, are approved as AMOCs for the corresponding provisions of this AD.

Material Incorporated by Reference

(m) You must use Boeing Temporary Revision 09-010, dated March 2008, to the Boeing 747-400 Maintenance Planning Data (MPD) Document D621U400-9; Section 9, Revision April 2008, of the Boeing 747-400 Maintenance Planning Data (MPD) Document, D621U400-9; or Section 9, Revision March 2009, of the Boeing 747-400 Maintenance Planning Data (MPD) Document, D621U400-9; to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of Section 9, Revision April 2008, of the Boeing 747-400 Maintenance Planning Data (MPD) Document D62U400-9; and Section 9, Revision March 2009, of the Boeing 747-400 Maintenance Planning Data (MPD) Document, D621U400-9; under 5 U.S.C. 522(a) and 1 CFR part 51.

(2) The Director of the Federal Register previously approved the incorporation by reference of Boeing Temporary Revision 09-010, dated March 2008, to the Boeing 747-400 MPD Document D621U400-9, on June 12, 2008 (73 FR 25990, May 8, 2008).

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet https://www.myboeingfleet.com.

(4) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

(5) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this

material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on December 21, 2009.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2008-10-10 R1 The Boeing Company: Amendment 39-16164. Docket No. FAA-2009-1226; Directorate Identifier 2009-NM-149-AD.

Effective Date

(a) This airworthiness directive (AD) is effective January 27, 2010.

Affected ADs

(b) This AD revises AD 2008-10-10, Amendment 39-15516.

Applicability

(c) This AD applies to The Boeing Company Model 737-600, -700, -700C, -800, and -900 series airplanes, certificated in any category, with an original standard airworthiness certificate or original export certificate of airworthiness issued before March 31, 2006.

Note 1: Airplanes with an original standard airworthiness certificate or original export certificate of airworthiness issued on or after March 31, 2006, must already be in compliance with the airworthiness limitations specified in this AD because those limitations were applicable as part of the airworthiness certification of those airplanes.

Note 2: This AD requires revisions to certain operator maintenance documents to include new inspections. Compliance with these inspections is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by these inspections, the operator may not be able to accomplish the inspections described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance (AMOC) according to paragraph (m) of this AD. The request should include a description of changes to the required inspections that will ensure the continued operational safety of the airplane.

Unsafe Condition

(d) This AD results from a design review of the fuel tank systems. We are issuing this AD to prevent the potential for ignition sources inside fuel tanks caused by latent failures, alterations, repairs, or maintenance actions, which, in combination with flammable fuel vapors, could result in a fuel tank explosion and consequent loss of the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Restatement of Requirements of AD 2008-10-10, With Revised Service Information

Service Information Reference

(f) The term "Revision March 2008 of the MPD," as used in this AD, means Boeing Temporary Revision (TR) 09-020, dated March 2008, to the Boeing 737-600/700/800/900 Maintenance Planning Data (MPD) Document, D626A001-CMR, Revision March 2008.

Revision to Airworthiness Limitations (AWLs) Section

(g) Before December 16, 2008, revise the AWLs section of the Instructions for Continued Airworthiness (ICA) by incorporating into the MPD the information in the subsections specified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD; except that the initial inspection required by paragraph (h) of this AD must be done at the applicable compliance time specified in that paragraph.

(1) Subsection E, "AIRWORTHINESS LIMITATIONS–FUEL SYSTEMS," of Boeing TR 09-020, dated March 2008, to the Boeing 737-600/700/800/900 MPD Document, D626A001-CMR, Revision March 2008; or of Section 9, Revision September 2009, dated September 2009, of the Boeing 737-600/700/800/900 Maintenance Planning Data (MPD) Document, D626A001-CMR.

(2) Subsection F, "PAGE FORMAT: FUEL SYSTEM AIRWORTHINESS LIMITATIONS," of Boeing TR 09-020, dated March 2008, to the Boeing 737-600/700/800/900 MPD Document, D626A001-CMR, Revision March 2008; or Section 9, Revision September 2009, dated September 2009, of the Boeing 737-600/700/800/900 MPD Document, D626A001-CMR.

(3) Subsection G, "AIRWORTHINESS LIMITATIONS–FUEL SYSTEM AWLs," AWLs No. 28-AWL-01 through No. 28-AWL-22 inclusive, of Boeing TR 09-020, dated March 2008, to the Boeing 737-600/700/800/900 MPD Document, D626A001-CMR, Revision March 2008; or Section 9, Revision September 2009, dated September 2009, of the Boeing 737-600/700/800/900 MPD Document, D626A001-CMR. As an optional action, AWLs No. 28-AWL-23 and No. 28-AWL-24, as identified in Subsection G of Boeing TR 09-020, dated March 2008, to the Boeing 737-600/700/800/900 MPD Document, D626A001-CMR, Revision March 2008; or Section 9, Revision September 2009, dated September 2009, of the Boeing 737-600/700/800/900 MPD Document, D626A001-CMR; also may be incorporated into the AWLs section of the ICA.

Initial Inspection and Repair if Necessary

(h) At the later of the compliance times specified in paragraphs (h)(1) and (h)(2) of this AD, do a special detailed inspection of the lightning shield to ground termination on the out-of-tank fuel quantity indication system (FQIS) wiring to verify functional integrity, in accordance with AWL No. 28-AWL-03 of Subsection G of Boeing TR 09-020, dated March 2008, to the Boeing 737-600/700/800/900 MPD Document, D626A001-CMR, Revision March 2008; or Section 9, Revision September 2009, dated September 2009, of the Boeing 737-600/700/800/900 MPD Document, D626A001-CMR. If any discrepancy is found during the inspection, repair the discrepancy before further flight in accordance with AWL No. 28-AWL-03 of Subsection G of Boeing TR 09-020, dated March 2008, to the Boeing 737-600/700/800/900 MPD Document, D626A001-CMR, Revision March 2008; or Section 9, Revision September 2009, dated September 2009, of the Boeing 737-600/700/800/900 MPD Document, D626A001-CMR. Accomplishing AWL No. 28-AWL-03 as part of an FAA-approved maintenance program before the applicable compliance time specified in paragraph (h)(1) or (h)(2) of this AD constitutes compliance with the requirements of this paragraph.

Note 3: For the purposes of this AD, a special detailed inspection is: "An intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. The examination

is likely to make extensive use of specialized inspection techniques and/or equipment. Intricate cleaning and substantial access or disassembly procedure may be required."

(1) Within 120 months since the date of issuance of the original standard airworthiness certification or the date of issuance of the original export certificate of airworthiness.

(2) Within 24 months after June 12, 2008 (the effective date of AD 2008-10-10).

No Alternative Inspections, Inspection Intervals, or Critical Design Configuration Control Limitations (CDCCLs)

(i) After accomplishing the actions specified in paragraphs (g) and (h) of this AD, no alternative inspections, inspection intervals, or CDCCLs may be used unless the inspections, intervals, or CDCCLs are approved as an AMOC in accordance with the procedures specified in paragraph (m) of this AD.

Credit for Actions Done According to Previous Revisions of the MPD

(j) Actions done before June 12, 2008, in accordance with the following MPDs are acceptable for compliance with the corresponding requirements of paragraphs (g) and (h) of this AD: Section 9 of the Boeing 737-600/700/700C/700IGW/800/900 MPD Document, D626A001-CMR, Revision March 2006; Revision May 2006; Revision October 2006; Revision November 2006; or Revision November 2006 R1; or Section 9 of the Boeing 737-600/700/800/900 MPD Document, D626A001-CMR, Revision March 2007; Revision March 2007 R1; Revision March 2007 R2; or Revision February 2008.

Terminating Action for AD 2008-06-03, Amendment 39-15415

(k) Incorporating AWLs No. 28-AWL-21, No. 28-AWL-22, and No. 28-AWL-24 into the AWLs section of the ICA in accordance with paragraph (g) of this AD terminates the action required by paragraph (h)(1) of AD 2008-06-03.

New Information

Explanation of CDCCL Requirements

Note 4: Notwithstanding any other maintenance or operational requirements, components that have been identified as airworthy or installed on the affected airplanes before the revision of the AWLs, as required by paragraph (g) of this AD, do not need to be reworked in accordance with the CDCCLs. However, once the AWLs have been revised, future maintenance actions on these components must be done in accordance with the CDCCLs.

Credit for Actions Done According to Previous Revisions of the MPD

(l) Actions done before the effective date of this AD, in accordance with the following MPDs are acceptable for compliance with the corresponding requirements of paragraphs (g) and (h) of this AD: Section 9 of the Boeing 737-600/700/800/900 MPD Document, D626A001-CMR, Revision March 2008; Revision April 2008; Revision June 2008; Revision February 2009; Revision March 2009; or Revision August 2009.

Alternative Methods of Compliance (AMOCs)

(m)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Thomas Thorson, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6508; fax (425) 917-6590. Or, e-mail information to 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local FSDO. The AMOC approval letter must specifically reference this AD.

(3) AMOCs approved previously in accordance with AD 2008-10-10 are approved as AMOCs for the corresponding provisions of this AD.

Material Incorporated by Reference

(n) You must use Boeing Temporary Revision 09-020, dated March 2008, to the Boeing 737-600/700/800/900 Maintenance Planning Data (MPD) Document D626A001-CMR; or Section 9, Revision September 2009, dated September 2009, of the Boeing 737-600/700/800/900 MPD Document, D626A001-CMR; to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of Section 9, Revision September 2009, dated September 2009, of the Boeing 737-600/700/800/900 MPD Document, D626A001-CMR, under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The Director of the Federal Register previously approved the incorporation by reference of Boeing Temporary Revision 09-020, dated March 2008, to the Boeing 737-600/700/800/900 Maintenance Planning Data (MPD) Document, D626A001-CMR, on June 12, 2008 (73 FR 25986, May 8, 2008).

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet https://www.myboeingfleet.com.

(4) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

(5) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on December 23, 2009.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2009-26-06 Honeywell International Inc. (Formerly AlliedSignal and Textron-Lycoming): Amendment 39-16141. Docket No. FAA-2007-0096; Directorate Identifier 2007-NE-39-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective February 11, 2010.

Affected ADs

(b) This AD supersedes AD 97-11-05, Amendment 39-10034.

Applicability

(c) This AD applies to Honeywell International Inc. ALF502L and ALF502R series, and LF507-1F and LF507-1H turbofan engines with fuel manifolds, part numbers (P/Ns) 2-163-620-9, 2-163-620-10, 2-163-620-17, 2-163-620-18, 2-163-620-23, 2-163-620-24, 2-163-620-25, 2-163-620-26, 2-163-620-27, 2-163-620-28, 2-163-620-33, 2-163-620-34, 2-163-620-35, 2-163-620-36, 2-163-620-37, or 2-163-620-38, installed. These engines are installed on, but not limited to, Bombardier CL-600-1A11 and BAE Systems 146-100/A, -200/A, and -300/A, and AVRO 146-RJ70A, -RJ85A, and -RJ100A airplanes.

Unsafe Condition

(d) This AD results from reports of fire in the engine nacelle. We are issuing this AD to detect cracks in certain fuel manifolds and fuel leaks from other fuel manifolds, which could result in a fire in the engine nacelle and a hazard to the aircraft.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified unless the actions have already been done.

Initial Inspection for Cracks in Fuel Manifold Assemblies That Have a P/N Listed in Paragraph (c) of This AD, Except P/Ns 2-163-620-37 or 2-163-620-38

(f) Using the following compliance times, perform initial and repetitive on-wing eddy current inspections (ECI) or in-shop fluorescent penetrant inspections (FPI) of fuel manifold assemblies having a P/N listed in the paragraph (c) of this AD, except P/Ns 2-163-620-37 or 2-163-620-38. Use paragraphs 2.A.(1) through 2.A.(3)(d) of the accomplishment instructions of AlliedSignal Service Bulletin ALF/LF 73-1002, Revision 1, dated March 24, 1997 or original issue dated December 22, 1995, to perform the inspections.

(1) For ALF502L series engines:

(i) For fuel manifold assemblies with 3,250 or more cycles since new (CSN) or unknown CSN on July 28, 1997 (the effective date of AD 97-11-05), inspect at the next hot section inspection (HSI), or 2,000 cycles-in-service (CIS) after July 28, 1997, whichever occurs first.

(ii) For fuel manifold assemblies with less than 3,250 CSN on July 28, 1997, inspect at the next HSI or before accumulating 5,250 CSN, whichever occurs first.

(iii) Thereafter, inspect at HSI intervals not to exceed 2,000 cycles-since-last inspection (CSLI).

(iv) If a fuel manifold assembly is found cracked, prior to further flight, replace the fuel manifold assembly with an FAA-approved serviceable assembly.

(2) For ALF502R and LF507 series engines:

(i) For fuel manifold assemblies with 3,250 or more CSN, or unknown CSN, on July 28, 1997, inspect within 1,250 CIS after July 28, 1997.

(ii) For fuel manifold assemblies with less than 3,250 CSN on July 28, 1007, inspect prior to accumulating 4,500 CSN.

(iii) Thereafter, inspect at intervals not to exceed 1,250 CSLI.

(iv) If a fuel manifold assembly is found cracked, before further flight replace the fuel manifold assembly with an FAA-approved serviceable assembly.

Initial Inspection for Fuel Leaks, Fuel Manifold Assemblies, P/Ns 2-163-620-37 or 2-163-620-38

(g) For fuel manifold assemblies, P/Ns 2-163-620-37 or 2-163-620-38, with 1,800 or more CSN or cycles-since-overhaul (CSO), inspect for leaks within 300 CIS after the effective date of this AD as follows:

(1) Start engine and let stabilize at ground idle.

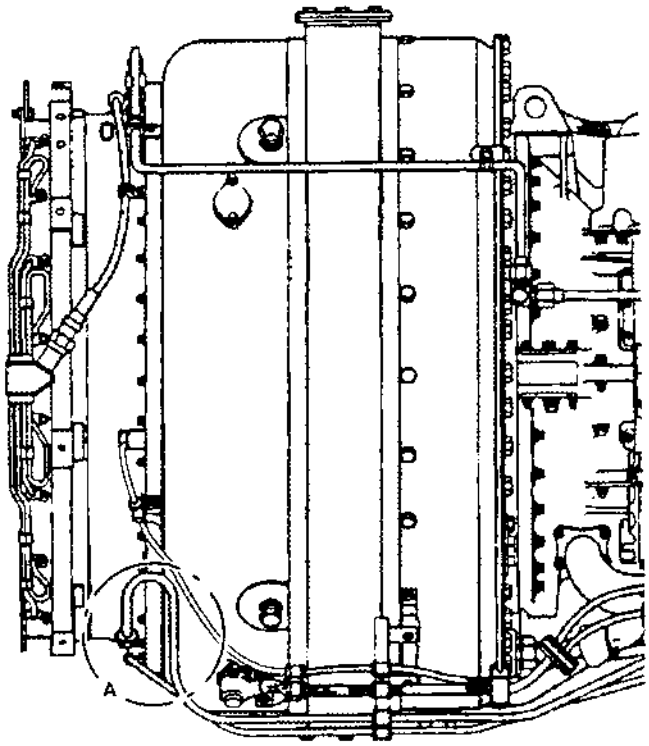
(2) With the engine operating, look for fuel leaking from the fuel manifold assembly to the fire shield interface area (see Figure 1 of this AD). No leaks allowed.

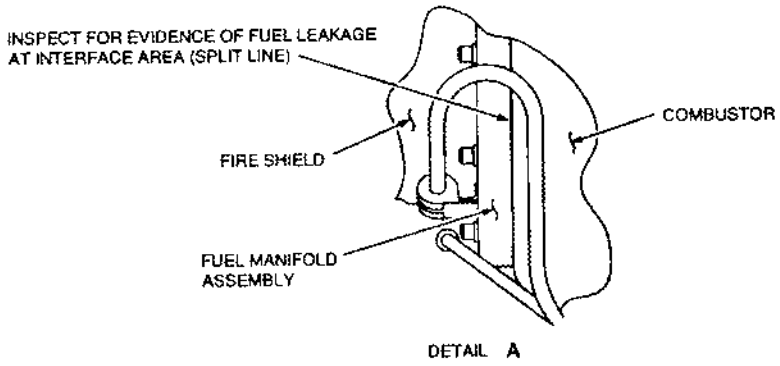
(3) If you find any leaks, shutdown the engine and replace the fuel manifold assembly with an FAA-approved serviceable assembly.

(4) Shut down engine.

(5) Look for fuel leaking from the fuel manifold assembly to the fire shield interface area (see Figure 1 of this AD). No leaks allowed.

(6) If you find any leaks, replace the fuel manifold assembly with an FAA-approved serviceable assembly.





Repetitive Inspection for Fuel Leaks, Fuel Manifold Assemblies P/Ns 2-163-620-37 and 2-163-620-38

(h) Thereafter, within 600 CSLI, inspect fuel manifold assemblies, P/Ns 2-163-620-37 and 2-163-620-38, for leaks as specified in paragraphs (g)(1) through (g)(6) of this AD.

Optional Terminating Action

(i) Replacing a fuel manifold assembly that has a P/N specified in paragraph (c) of this AD with a fuel manifold assembly, P/N 2-163-620-39, 2-163-620-40, 2-163-620-41, or 2-163-620-42, or an FAA-approved equivalent part, terminates the inspection requirement of this AD.

Alternative Methods of Compliance

(j) The Manager, Los Angeles Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Related Information

(k) Contact Robert Baitoo, Aerospace Engineer, Los Angeles Aircraft Certification Office, FAA, Transport Airplane Directorate, 3960 Paramount Blvd., Lakewood CA 90712-4137; e-mail: robert.baitoo@faa.gov; telephone (562) 627-5245; fax (562) 627-5210, for more information about this AD.

Material Incorporated by Reference

(l) You must use AlliedSignal Service Bulletin (SB) ALF/LF 73-1002, Revision 1, dated March 24, 1997 or SB ALF/LF 73-1002, dated December 22, 1995, to perform the actions required by this AD. The Director of the Federal Register approved the incorporation by reference of AlliedSignal SB ALF/LF 73-1002, Revision 1, dated March 24, 1997, in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The Director of the Federal Register previously approved the incorporation by reference of AlliedSignal SB ALF/LF 73-1002, dated December 22, 1995 on July 28, 1997 (62 FR 28994, May 29, 1997). Contact Honeywell International Inc., P.O. Box 52181, Phoenix, AZ 85072-2181; telephone (800) 601-3099 (U.S.A.) or (602) 365-3099 (International); or go to: https://portal.honeywell.com/wps/portal/aero, for a copy of this service information. You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Burlington, Massachusetts, on December 10, 2009.
Peter A. White,
Assistant Manager, Engine and Propeller Directorate,
Aircraft Certification Service.

2009-26-09 General Electric Company: Amendment 39-16144. Docket No. FAA-2007-27687; Directorate Identifier 2000-NE-42-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective February 11, 2010.

Affected ADs

(b) This AD supersedes AD 2007-05-16, Amendment 39-14977 and AD 2007-07-07R1, Amendment 39-15179.

Applicability

(c) This AD applies to General Electric Company (GE) CF34-1A, -3A, -3A1, -3A2, -3B, and -3B1 turbofan engines, with fan disks part numbers (P/Ns) 5921T18G01, 5921T18G09, 5921T18G10, 5921T54G01, 5922T01G02, 5922T01G04, 5922T01G05, 6020T62G04, 6020T62G05, 6078T00G01, 6078T57G01, 6078T57G02, 6078T57G03, 6078T57G04, 6078T57G05, and 6078T57G06 installed. These engines are installed on, but not limited to, Bombardier Canadair airplane models CL-600-2A12, -2B16, and -2B19.

Unsafe Condition

(d) This AD results from an updated risk analysis by GE that shows we need to take corrective action that is more stringent. We are issuing this AD to prevent an uncontained failure of the fan disk, which could result in damage to the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified unless the actions have already been done.

Removing Certain Fan Disks From Service

(f) For fan disks listed by P/N and serial number (SN) in Table 2 of GE Alert Service Bulletin (ASB) CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008; or in Table 2 of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, that have 8,000 CSN or more on the effective date of this AD, remove fan disks from service.

(g) For fan disks listed by P/N and serial number (SN) in Table 2 of GE Alert Service Bulletin (ASB) CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008; or in Table 2 of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, that have fewer than 8,000 CSN on the effective date of this AD, remove fan disks from service before accumulating 8,000 CSN.

Inspections of Tier 1 Fan Disks

(h) For CF34-3A1 engines with fan drive shaft, P/N 6036T78P02, and airworthiness limitation section life limit of 22,000 CSN, and CF34-3B1 turbofan engines with Tier 1 fan disks listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, do the following:

Tactile and Enhanced Visual (TEV) Inspections, Fluorescent Penetrant Inspections (FPI), and Eddy Current Inspections (ECI)

(1) For Tier 1 fan disks not already inspected using GE ASB CF34-AL S/B 72-A0233, Revision 03, dated June 27, 2007, or earlier issue, do the following:

(i) Perform a TEV inspection, an FPI, and an ECI on the Tier 1 fan disks within 650 cycles-in-service (CIS) after the effective date of this AD. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0253, dated October 27, 2008, to perform the TEV inspection, FPI, and ECI.

(ii) Thereafter, perform repetitive ECI on the Tier 1 fan disks within intervals of 3,000 cycles-since-last inspection (CSLI). Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0252, dated October 27, 2008, to perform the repetitive ECI.

(2) For Tier 1 fan disks, listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008; already inspected using GE ASB CF34-AL S/B 72-A0233, Revision 03, dated June 27, 2007, or earlier issue, do the following:

(i) For Tier 1 fan disks with 2,500 or more CSLI on the effective date of this AD, perform an ECI on the Tier 1 fan disks within 500 CIS after the effective date of this AD. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0252, dated October 27, 2008, to perform the ECI.

(ii) For Tier 1 fan disks with fewer than 2,500 CSLI on the effective date of this AD, perform an ECI on the Tier 1 fan disks within 3,000 CSLI. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0252, dated October 27, 2008, to perform the ECI.

(iii) Thereafter, perform repetitive ECI on the Tier 1 fan disks within intervals of 3,000 CSLI. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0252, dated October 27, 2008, to perform the repetitive ECI.

Inspections of Tier 2 Fan Disks

(i) For CF34-3A1 engines with fan drive shaft, P/N 6036T78P02, and airworthiness limitation section life limit of 22,000 CSN, and CF34-3B1 turbofan engines with Tier 2 fan disks listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, do the following:

TEV Inspections, FPI, and ECI

(1) For Tier 2 fan disks not already inspected using GE ASB CF34-AL S/B 72-A0233, Revision 03, dated June 27, 2007, or earlier issue, do the following:

(i) Perform a TEV inspection, an FPI, and an ECI on the Tier 2 fan disks within 2,000 CIS after the effective date of this AD, or within 5,000 CIS after September 12, 2007, or by March 19, 2012, whichever occurs first. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment

Instructions of GE ASB CF34-AL S/B 72-A0253, dated October 27, 2008, to perform the TEV inspection, FPI, and ECI.

(ii) Thereafter, perform repetitive eddy current inspections on the Tier 2 fan disks within intervals of 3,000 CSLI. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0252, dated October 27, 2008, to perform the repetitive ECI.

(2) For Tier 2 fan disks, listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008; already inspected using GE ASB CF34-AL S/B 72-A0233, Revision 03, dated June 27, 2007, or earlier issue, do the following:

(i) For Tier 2 fan disks with 2,500 or more CSLI on the effective date of this AD, perform an ECI on the Tier 2 fan disks within 500 CIS after the effective date of this AD. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0252, dated October 27, 2008, to perform the ECI.

(ii) For Tier 2 fan disks with fewer than 2,500 CSLI on the effective date of this AD, perform an ECI on the Tier 2 fan disks within 3,000 CSLI. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0252, dated October 27, 2008, to perform the ECI.

(iii) Thereafter, perform repetitive ECI on the Tier 2 fan disks within intervals of 3,000 CSLI. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0252, dated October 27, 2008, to perform the repetitive ECI.

Inspections of Tier 3 Fan Disks

(j) For CF34-3A1 engines with fan drive shaft, P/N 6036T78P02, and airworthiness limitation section life limit of 22,000 CSN, and CF34-3B1 turbofan engines with Tier 3 fan disks, listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, do the following:

TEV Inspections, FPI, and ECI

(1) For Tier 3 fan disks not already inspected using GE ASB CF34-AL S/B 72-A0233, Revision 03, dated June 27, 2007, or earlier issue, perform a TEV inspection, an FPI, and an ECI on the Tier 3 fan disks within 5,000 CIS after September 12, 2007, or by March 19, 2012, whichever is earlier. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0253, dated October 27, 2008, to perform the TEV inspection, FPI, and ECI.

(2) For Tier 3 fan disks, listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008; already inspected using GE ASB CF34-AL S/B 72-A0233, Revision 03, dated June 27, 2007, or earlier issue, perform a TEV inspection and an ECI on the Tier 3 fan disks at the next shop visit. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0253, dated October 27, 2008, to perform the TEV inspection and ECI.

(3) Repetitive ECI on the Tier 3 fan disks are not required.

Inspections of Tier 1 Fan Disks

(k) For CF34-3A1 turbofan engines with fan drive shaft, P/N 6036T78P02, and airworthiness limitation section life limit of 15,000 CSN, CF34-1A, CF34-3A, CF34-3A2, and CF34-3B turbofan engines with Tier 1 fan disks listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008, do the following:

TEV Inspections, FPI, and ECI

(1) For Tier 1 fan disks not already inspected using GE ASB CF34-BJ S/B 72-A0212, Revision 03, dated June 27, 2007, or earlier issue:

(i) Perform a TEV inspection, FPI, and ECI on the Tier 1 fan disks within 350 CIS after the effective date of this AD. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0212, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0234, dated October 27, 2008, to perform the TEV inspection, FPI, and ECI.

(ii) Thereafter, perform repetitive ECI on the Tier 1 fan disks within intervals of 3,000 CSLI. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0235, dated October 27, 2008, to perform the repetitive ECI.

(2) For Tier 1 fan disks, listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008; already inspected using GE ASB CF34-BJ S/B 72-A0212, Revision 03, dated June 27, 2007, or earlier issue, do the following:

(i) For Tier 1 fan disks with 2,500 or more CSLI on the effective date of this AD, perform an ECI on the Tier 1 fan disks within 500 CIS after the effective date of this AD. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0235, dated October 27, 2008, to perform the ECI.

(ii) For Tier 1 fan disks with fewer than 2,500 CSLI on the effective date of this AD, perform an ECI on the Tier 1 fan disks within 3,000 CSLI after the effective date of this AD. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0235, dated October 27, 2008, to perform the ECI.

(iii) Thereafter, perform repetitive ECI on the Tier 1 fan disks within intervals of 3,000 CSLI. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0235, dated October 27, 2008, to perform the repetitive ECI.

Inspections of Tier 2 Fan Disks

(l) For CF34-3A1 turbofan engines with fan drive shaft, P/N 6036T78P02, and airworthiness limitation section life limit of 15,000 CSN, CF34-1A, CF34-3A, CF34-3A2, and CF34-3B turbofan engines with Tier 2 fan disks listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-AL S/B 72-A0212, Revision 04, dated October 27, 2008, do the following:

TEV Inspections, FPI, and ECI

(1) For Tier 2 fan disks not already inspected using GE ASB CF34-AL S/B 72-A0212, Revision 03, dated June 27, 2007, or earlier issue, do the following:

(i) Perform a TEV inspection, FPI, and ECI on the Tier 2 fan disks within 2,000 CIS after the effective date of this AD, or within 3,500 CSN after September 12, 2007, or by March 19, 2012, whichever occurs first. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0212, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0234, dated October 27, 2008, to perform the TEV inspection, FPI, and ECI.

(ii) Thereafter, perform repetitive ECI on the Tier 2 fan disks within intervals of 3,000 CSLI. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0235, dated October 27, 2008, to perform the repetitive ECI.

(2) For Tier 2 fan disks, listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008; already inspected using GE ASB CF34-BJ S/B 72-A0212, Revision 03, dated June 27, 2007, or earlier issue, do the following:

(i) For Tier 2 fan disks with 2,500 or more CSLI on the effective date of this AD, perform an ECI on the Tier 2 fan disks within 500 CIS after the effective date of this AD. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0235, dated October 27, 2008, to perform the ECI.

(ii) For Tier 2 fan disks with fewer than 2,500 CSLI on the effective date of this AD, perform an ECI on the Tier 2 fan disks within 3,000 CSLI. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0235, dated October 27, 2008, to perform the ECI.

(iii) Thereafter, perform repetitive ECI on the Tier 2 fan disks within intervals of 3,000 CSLI. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0235, dated October 27, 2008, to perform the repetitive ECI.

Inspections of Tier 3 Fan Disks

(m) For CF34-3A1 turbofan engines with fan drive shaft, P/N 6036T78P02, and airworthiness limitation section life limit of 15,000 CSN, CF34-1A, CF34-3A, CF34-3A2, and CF34-3B turbofan engines with Tier 3 fan disks listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008, do the following:

TEV Inspections, FPI, and ECI

(1) For Tier 3 fan disks not already inspected using GE ASB CF34-AL S/B 72-A0212, Revision 03, dated June 27, 2007, or earlier issue, perform a TEV inspection, FPI, and ECI on the Tier 3 fan disks within 3,500 CIS after September 12, 2007, or by March 19, 2012, whichever is earlier. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0212, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0234, dated October 27, 2008, to perform the TEV inspection, FPI, and ECI.

(2) For Tier 3 fan disks, listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008; already inspected using GE ASB CF34-BJ S/B 72-A0212, Revision 03, dated June 27, 2007, or earlier issue, perform a TEV inspection and an ECI on the Tier 3 fan disks at the next shop visit. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0234, dated October 27, 2008, to perform the TEV inspection and ECI.

(3) Repetitive ECI on the Tier 3 fan disks are not required.

Alternative Methods of Compliance

(n) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Mandatory Terminating Action

(o) Remove from service, Tier 1 and Tier 2 fan disks listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008; or CF34-BJ S/B 72-0212, Revision 04, dated October 27, 2008, before they exceed their limited life cycles or September 30, 2018, whichever occurs first.

Related Information

(p) Contact Tara Chaidez, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: tara.chaidez@faa.gov; telephone (781) 238-7773; fax (781) 238-7199, for more information about this AD.

Material Incorporated by Reference

(q) You must use the service information specified in the following Table 1 to perform the inspections required by this AD. The Director of the Federal Register approved the incorporation by reference of the documents listed in the following Table 1 in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact General Electric Company via Lockheed Martin Technology Services, 10525 Chester Road, Suite C, Cincinnati, Ohio 45215; telephone (513) 672-8400; fax (513) 672-8422, for a copy of this service information. You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Table 1 – Incorporation by Reference

Service Bulletin No.	Page	Revision	Date
CF34-AL S/B 72-A0233	ALL	04	October 27, 2008
Total Pages – 107			
CF34-AL S/B 72-A0252	ALL	Original	October 27, 2008
Total Pages – 22			
CF34-AL S/B 72-A0253	ALL	Original	October 27, 2008
Total Pages – 77			
CF34-BJ S/B 72-A0212	ALL	04	October 27, 2008
Total Pages – 111			
CF34-BJ S/B 72-A0234	ALL	Original	October 27, 2008
Total Pages – 82			
CF34-BJ S/B 72-A0235	ALL	Original	October 27, 2008
Total Pages – 20			

Issued in Burlington, Massachusetts, on December 11, 2009.
Francis A. Favara,
Manager, Engine and Propeller Directorate,
Aircraft Certification Service.

2010-01-01 The Boeing Company: Amendment 39-16157. Docket No. FAA-2009-0655; Directorate Identifier 2008-NM-192-AD.

Effective Date

(a) This AD becomes effective February 16, 2010.

Affected ADs

(b) This AD supersedes AD 2006-05-02, Amendment 39-14499.

Applicability

(c) This AD applies to all The Boeing Company Model 747-200F, 747-200C, 747-400, 747-400D, and 747-400F series airplanes; certificated in any category.

Subject

(d) Air Transport Association (ATA) of America Code 53: Fuselage.

Unsafe Condition

(e) This AD results from fatigue tests and analysis that identified additional areas of the fuselage where fatigue cracks can occur. We are issuing this AD to prevent the loss of structural integrity of the fuselage, which could result in rapid depressurization of the airplane.

Compliance

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Restatement of Requirements of AD 2006-05-02, With Updated Service Information and Reduced Compliance Times for Group 8 Airplanes

Inspections

(g) Do initial and repetitive inspections for fuselage cracks using applicable internal and external detailed inspection methods, and repair all cracks, by doing all the actions specified in the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2500, dated December 21, 2004; or Revision 1, dated September 25, 2008; except as required by paragraph (h) or provided by paragraph (l) of this AD. After the effective date of this AD, Boeing Alert Service Bulletin 747-53A2500, Revision 1, dated September 25, 2008, must be used. Do the initial and repetitive

inspections at the applicable times specified in paragraph (g)(1) or (g)(2) of this AD, except as required by paragraph (j) of this AD. Repair any crack before further flight after detection.

(1) For Groups 1 through 7, 9, and 10 identified in Boeing Alert Service Bulletin 747-53A2500, Revision 1, dated September 25, 2008: Do the initial and repetitive inspections at the times specified in paragraph 1.E. of Boeing Alert Service Bulletin 747-53A2500, dated December 21, 2004, except as required by paragraph (i) of this AD.

(2) For Group 8 airplanes identified in Boeing Alert Service Bulletin 747-53A2500, Revision 1, dated September 25, 2008: Do the initial and repetitive inspections at the applicable time specified in paragraph 1.E. of Boeing Alert Service Bulletin 747-53A2500, Revision 1, dated September 25, 2008, except as required by paragraph (k) of this AD.

Exceptions to Service Bulletin Procedures

(h) If any crack is found during any inspection required by this AD, and Boeing Alert Service Bulletin 747-53A2500, dated December 21, 2004; or Revision 1, dated September 25, 2008; specifies to contact Boeing for appropriate action: Before further flight, repair the crack using a method approved in accordance with the procedures specified in paragraph (m) of this AD.

(i) Where Boeing Alert Service Bulletin 747-53A2500, dated December 21, 2004; or Revision 1, dated September 25, 2008; specifies a compliance time after the date on the original issue of the service bulletin, this AD requires compliance within the specified compliance time after April 6, 2006 (the effective date of AD 2006-05-02).

New Requirements of This AD

Actions for Additional Areas

(j) For the additional inspection areas of Groups 1 through 7, 9, and 10 airplanes, identified in Boeing Alert Service Bulletin 747-53A2500, Revision 1, dated September 25, 2008: Do initial and repetitive inspections for cracking of the inspection areas, and, as applicable, repair cracking, by doing all the actions specified in the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2500, Revision 1, dated September 25, 2008; except as required by paragraph (h) of this AD. Do the initial and repetitive inspections at the times specified in paragraph 1.E. of Boeing Alert Service Bulletin 747-53A2500, Revision 1, dated September 25, 2008, except as required by paragraph (k) of this AD. Repair all cracking before further flight.

(k) Where Boeing Alert Service Bulletin 747-53A2500, Revision 1, dated September 25, 2008, specifies a compliance time after the date on Revision 1 of the service bulletin, this AD requires compliance within the specified compliance time after the effective date of this AD.

(l) For Group 8 airplanes, inspection of Areas 2 and 5 identified in Boeing Alert Service Bulletin 747-53A2500, dated December 21, 2004, as required by paragraph (g) of this AD, is no longer required.

Alternative Methods of Compliance (AMOCs)

(m)(1) The Manager, Seattle ACO, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Ivan Li, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601

Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6437; fax (425) 917-6590. Or, e-mail information to 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

(3) AMOCs approved previously in accordance with AD 2006-05-02 are approved as alternative methods of compliance with the corresponding requirements of this AD.

(4) Accomplishment of the inspections specified in this AD is considered an AMOC for the applicable requirements of paragraphs (h) and (i) of AD 2004-07-22 R1, Amendment 39-15326, under the conditions specified in paragraphs (m)(4)(i) and (m)(4)(ii) of this AD.

(i) The inspections specified in this AD must be done within the compliance times specified in AD 2004-07-22 R1. The initial inspection specified in this AD must be done at the times specified in paragraph (i) of AD 2004-07-22 R1, and the inspections specified in this AD must be repeated within the intervals specified in paragraph (g) of this AD.

(ii) The AMOC specified in paragraph (m)(4) of this AD applies only to the areas of Boeing Supplemental Structural Inspection Document for Model 747 Airplanes, Document D6-35022, Revision G, dated December 2000, that are specified in Boeing Alert Service Bulletin 747-53A2500, dated December 21, 2004; or Boeing Alert Service Bulletin 747-53A2500, Revision 1, dated September 25, 2008.

(5) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD, if it is approved by an Authorized Representative for the Boeing Commercial Airplanes Delegation Option Authorization Organization who has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

Material Incorporated by Reference

(n) You must use Boeing Alert Service Bulletin 747-53A2500, dated December 21, 2004, as of April 6, 2006: or Boeing Alert Service Bulletin 747-53A2500, Revision 1, dated September 25, 2008; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of Boeing Alert Service Bulletin 747-53A2500, Revision 1, dated September 25, 2008, under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The Director of the Federal Register approved the incorporation by reference of Boeing Alert Service Bulletin 747-53A2500, dated December 21, 2004, as of April 6, 2006 (71 FR 10605, March 2, 2006).

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet https://www.myboeingfleet.com.

(4) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

(5) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on December 17, 2009.
Stephen P. Boyd,
Acting Manger, Transport Airplane Directorate,
Aircraft Certification Service.

2010-01-03 Fire Fighting Enterprises Limited: Amendment 39-16159. Docket No. FAA-2009-1225; Directorate Identifier 2009-NM-257-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective January 20, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to portable Halon 1211 (BCF) fire extinguishers manufactured by Fire Fighting Enterprises Limited. These fire extinguishers may be installed on (or carried or stowed on board) various transport airplanes, small airplanes, and rotorcraft, certificated in any category, identified in but not limited to the airplanes and rotorcraft of the manufacturers included in Table 1 of this AD, all type-certificated models.

Table 1–Affected Airplanes and Rotorcraft

Manufacturer	Product subtype
328 Support Services GmbH (Type Certificate previously held by AvCraft Aerospace GmbH; Fairchild Dornier GmbH; Dornier Luftfahrt GmbH).	Transport Airplane.
Aermacchi S.p.A	Small Airplane.
Agusta S.p.A	Rotorcraft.
AgustaWestland	Rotorcraft.
Airbus (Type Certificate previously held by Airbus Industrie)	Transport Airplane.
Aircraft Industries a.s. (Type Certificate previously held by LETECKE ZAVODY a.s.; LET Aeronautical Works)	Small Airplane.
Alenia Aeronautica	Transport Airplane.
B–N Group Ltd (Type Certificate previously held by Pilatus Britten-Norman Limited; Britten-Norman (Bembridge) Limited).	Small Airplane.
BAE Systems (Operations) Limited (Type Certificate previously held by British Aerospace Regional Aircraft; British Aerospace (Commercial Aircraft) Limited; Jetstream Aircraft Limited; British Aerospace, PLC; Avro International Aerospace Division; British Aerospace).	Transport Airplane.
The Boeing Company	Transport Airplane.

Empresa Brasileira de Aeronautica S.A. (EMBRAER)	Transport Airplane.
Eurocopter Deutschland GMBH (ECD) (Type Certificate previously held by Messerschmitt-Bolkow-Blohm-Gmbh)	Rotorcraft.
Eurocopter France	Rotorcraft.
Fokker Services B.V	Transport Airplane.
Hawker Beechcraft (Type Certificate previously held by Raytheon Aircraft Company; Beech Aircraft Corporation)	Small Airplane.
Pilatus Aircraft Ltd	Small Airplane.
Saab AB, Saab Aerosystems (Type Certificate previously held by SAAB AIRCRAFT AB; SAAB-Fairchild)	Transport Airplane.
Short Brothers PLC (Type Certificate previously held by Short Brothers, Ltd.)	Transport Airplane.
Triton America LLC (Type Certificate previously held by AAI Acquisition, Inc; Adam Aircraft)	Small Airplane.
Vulcanair S.p.A. (Type Certificate previously held by Partenavia Costruzioni Aeronautiche S.p.A)	Small Airplane.

Subject

(d) Air Transport Association (ATA) of America Code 26: Fire Protection.

Reason

(e) The mandatory continuing airworthiness information (MCAI) consists of two European Aviation Safety Agency (EASA) ADs: 2009-0251-E, dated November 25, 2009, and 2009-0262, dated December 15, 2009. EASA AD 2009-0251-E states:

> The Civil Aviation Authority of the United Kingdom (UK) has informed EASA that significant quantities of Halon 1211 gas, determined to be outside the required specification, have been supplied to the aviation industry for use in fire extinguishing equipment. Halon 1211 (BCF) is used in handheld fire extinguishers, usually fitted or stowed in aircraft cabins.
>
> EASA published Safety Information Bulletin (SIB) 2009-39 on 23 October 2009 to make the aviation community aware of this safety concern.
>
> The results of the ongoing investigation now show that LyonTech Engineering Ltd, a UK-based company, has supplied a quantity of heavily contaminated Halon 1211 (BCF) to Fire Fighting Enterprises (FFE). This Halon 1211 has subsequently been used to fill certain FFE portable fire extinguishers that are now likely to be installed in or carried on board aircraft.
>
> The contaminated nature of this gas, when used against a fire, may lead to release of toxic fumes, possibly causing injury to aircraft occupants.

For the reason described above, this EASA AD requires the identification and removal from service of all affected fire extinguishers and replacement with serviceable units.

EASA AD 2009-0262 adds the following:

* * * * *

* * * On 25 November 2009, EASA Emergency AD 2009-0251E was published to address an earlier batch of extinguishers with contaminated Halon 1211.

The results of the ongoing investigation have now established that LyonTech Engineering Ltd, a UK-based company, has supplied further consignments of Halon 1211 (BCF) to Fire Fighting Enterprises (FFE) that do not meet the required specification. This Halon 1211 has subsequently been used to fill certain FFE portable cabin and toilet compartment fire extinguishers that are now likely to be installed in or carried on board aircraft.

The contaminated nature of this gas, when used against a fire, may provide reduced fire suppression, endangering the safety of the aircraft and its occupants. In addition, extinguisher activation may lead to release of toxic fumes, possibly causing injury to aircraft occupants.

* * * * *

Compliance

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the
actions have already been done.

Actions

(g) Do the following actions.

(1) Within 90 days after the effective date of this AD, replace portable Halon 1211 (BCF) fire extinguishers manufactured by Fire Fighting Enterprises Limited with serviceable fire extinguishers; except as provided by paragraph (g)(2) of this AD.

(2) Fire extinguishers identified in paragraphs (g)(2)(i) and (g)(2)(ii) of this AD are not required to be replaced.

(i) Fire extinguishers conclusively determined to have been most recently filled with Halon 1211 supplied by a company other than LyonTech Engineering Limited.

(ii) Fire extinguishers that have been most recently filled by LyonTech Engineering Limited and that are conclusively determined by Fire Fighting Enterprises Limited to be filled with Halon 1211 that meets their design specification for Halon purity.

(3) As of the effective date of this AD, do not install any portable fire extinguisher manufactured by Fire Fighting Enterprises Limited unless it has been conclusively determined that the last time it was filled, it was filled with Halon 1211 supplied by a company other than LyonTech Engineering Limited; or it has been conclusively determined by Fire Fighting Enterprises Limited that the last time it was filled, it was filled with Halon 1211 that meets their design specification for Halon purity.

FAA AD Differences

Note: This AD differs from the MCAI and/or service information as follows:

(1) EASA ADs 2009-0251-E and 2009-0262 specify to inspect for certain fire extinguishers manufactured by Fire Fighting Enterprises Limited and replace if necessary. This AD requires replacing all fire extinguishers manufactured by Fire Fighting Enterprises Limited except as provided in paragraph (g)(2) of this AD.

(2) EASA AD 2009-0251-E specifies a time of 2 days to do the actions and EASA AD 2009-0262 specifies a time of 30 days to do the actions. This AD requires that the actions be done within 90 days. We have determined that a 90-day compliance time will ensure an acceptable level of safety.

Other FAA AD Provisions

(h) The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The manager of the office having certificate responsibility for the affected product has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, will coordinate requests for approval of AMOCs with the manager of the appropriate office for the affected product. Send information to ATTN: Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-2125; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

Related Information

(i) Refer to MCAI EASA Emergency Airworthiness Directive 2009-0251-E, dated November 25, 2009; and EASA Airworthiness Directive 2009-0262, dated December 15, 2009; for related information.

Material Incorporated by Reference

(j) None.

Issued in Washington, DC, on December 28, 2009.
Kalene C. Yanamura,
Acting Director,
Aircraft Certification Service.

2010-01-04 General Electric Company: Amendment 39-16161. Docket No. FAA-2008-0328; Directorate Identifier 2008-NE-44-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective January 25, 2010.

Affected ADs

(b) This AD supersedes AD 2009-24-11, Amendment 39-16103.

Applicability

(c) This AD applies to General Electric Company (GE) CF34-1A, CF34-3A, CF34-3A1, CF34-3A2, CF34-3B, and CF34-3B1 turbofan engines. These engines are installed on, but not limited to, Bombardier Canadair Models CL-600-2A12, CL-600-2B16, and CL-600-2B19 airplanes.

Unsafe Condition

(d) This AD results from the FAA discovering that the existing AD has an incorrect effectivity for certain fan blades requiring corrective actions, and from a report of an under-cowl fire and a failed fan blade. We are issuing this AD to prevent failure of certain part number (P/N) and serial number (S/N) fan blades and aft actuator head hoses, which could result in an under-cowl fire and subsequent damage to the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

CF34-3A1 and CF34-3B1 Engines

(f) For CF34-3A1 engines that meet all of the following criteria, perform the actions specified in paragraph (i) of this AD:

(1) Fan drive shaft, P/N 6036T78P02, installed; and

(2) Airworthiness limitation section fan drive shaft life limit of 22,000 cycles-since-new (CSN); and

(3) Installed fan blades, P/Ns 6018T30P14 or 4923T56G08, that have any fan blade S/Ns listed in Appendix A of General Electric Aircraft Engines (GEAE) SB No. CF34-AL S/B 72-0245, Revision 01, dated July 30, 2008.

(g) For CF34-3A1 engines that meet all of the following criteria, perform the actions specified in paragraph (i) of this AD:

(1) Fan drive shaft, P/N 6036T78P02, installed; and

(2) Airworthiness limitation section fan drive shaft life limit of 15,000 CSN; and

(3) In compliance with GEAE SB No. CF34-AL S/B 72-0147, dated May 21, 2003, Revision 01, dated October 17, 2003, Revision 02, dated August 5, 2004, or Revision 3, dated August 28, 2003; and

(4) Installed fan blades, P/Ns 6018T30P14 or 4923T56G08, that have any fan blade S/Ns listed in Appendix A of GEAE SB No. CF34-AL S/B 72-0245, Revision 01, dated July 30, 2008.

(h) For CF34-3B1 engines that meet all of the following criteria, perform the actions specified in paragraph (i) of this AD:

(1) Installed fan blades, P/Ns 6018T30P14 or 4923T56G08; and

(2) With any fan blade S/Ns listed in Appendix A of GEAE SB No. CF34-AL S/B 72-0245, Revision 01, dated July 30, 2008.

(i) Do the following for the engines meeting the criteria in paragraph (f), (g), or (h) of this AD, as applicable:

(1) Remove listed fan blades from service within 4,000 cycles-in-service (CIS) after the effective date of this AD or by December 31, 2010, whichever occurs first.

Initial Visual Inspection of the Fan Blade Abradable Rub Strip for Wear

(2) For fan blades with 1,200 or more CSN on the effective date of this AD, perform an initial visual inspection of the fan blade abradable rub strip for wear within 20 CIS after the effective date of this AD. Use paragraphs 3.A.(1) through 3.A.(2) of the Accomplishment Instructions of GEAE SB No. CF34-AL S/B 72-0250, Revision 01, dated November 26, 2008, to perform the inspection.

(3) For fan blades with fewer than 1,200 CSN on the effective date of this AD, perform an initial visual inspection of the fan blade abradable rub strip for wear within 1,220 CSN. Use paragraphs 3.A.(1) through 3.A.(2) of the Accomplishment Instructions of GEAE SB No. CF34-AL S/B 72-0250, Revision 01, dated November 26, 2008, to perform the inspection.

(4) If you find a continuous 360 degree rub indication, before further flight, visually inspect the fan blades using paragraphs 3.A.(2)(a) through 3.A.(2)(b) of the Accomplishment Instructions of GEAE SB No. CF34-AL S/B 72-0250, Revision 01, dated November 26, 2008.

(5) If you find a crack in the retaining pin holes of the fan blade, remove the blade from service.

Repetitive Visual Inspection of the Fan Blade Abradable Rub Strip for Wear

(6) Within 75 cycles-since-last inspection (CSLI) or 100 hours-since-last-inspection (HSLI), whichever occurs later, perform a visual inspection of the fan blade abradable rub strip for wear. Use paragraphs 3.A.(1) through 3.A.(2) of the Accomplishment Instructions of GEAE SB No. CF34-AL S/B 72-0250, Revision 01, dated November 26, 2008, to perform the inspection.

(i) If you find a continuous 360 degree rub indication, before further flight, visually inspect the fan blades using paragraphs 3.A.(2)(a) through 3.A.(2)(b) of the Accomplishment Instructions of GEAE SB No. CF34-AL S/B 72-0250, Revision 01, dated November 26, 2008.

(ii) If you find a crack in the retaining pin holes of the fan blade, remove the blade from service.

Inspection of the Aft Actuator Head Hose Fitting on CF34-3A1 and CF34-3B1 Engines

(7) Within 750 hours time-in-service (TIS) after the effective date of this AD, visually inspect and, if necessary, reposition the aft actuator head hose fitting. Use paragraph 3.A of the

Accomplishment Instructions of GEAE SB No. CF34-AL S/B 73-0046, Revision 02, dated August 27, 2008, to perform the inspection.

CF34-1A, CF34-3A, CF34-3A2, CF34-3B, and CF34-3A1 Engines

(j) For CF34-3A1 engines that meet all of the following criteria, perform the actions specified in paragraph (l) of this AD:

(1) Fan drive shaft, P/N 6036T78P02, installed; and

(2) Airworthiness limitation section fan drive shaft life limit of 15,000 CSN that are not in compliance with GEAE SB No. CF34-AL S/B 72-0147, dated May 21, 2003, Revision 01, dated October 17, 2003, Revision 02, dated August 5, 2004, or Revision 03, dated August 28, 2003; and

(3) With fan blades, P/Ns 6018T30P14 or 4923T56G08, that have any fan blade S/Ns listed in Appendix A of GEAE SB No. CF34-BJ S/B 72-0229, Revision 01, dated July 30, 2008.

(k) For CF34-1A, CF34-3A, CF34-3A2, and CF34-3B engines that meet all of the following criteria, perform the actions specified in paragraph (l) of this AD:

(1) Installed fan blades, P/N 6018T30P14 or P/N 4923T56G08; and

(2) Installed fan blade S/Ns listed in Appendix A of GEAE SB No. CF34-BJ S/B 72-0229, Revision 01, dated July 30, 2008:

(l) Do the following for the engines meeting the criteria in paragraph (j) or (k) of this AD as applicable:

(1) Remove listed fan blades, P/N 6018T30P14, from service within 2,400 CSN.

(2) Remove listed fan blades, P/N 4923T56G08, from service within 1,200 CIS since the bushing repair of the fan blade hole.

Initial Eddy Current Inspection of the Fan Blades

(3) For fan blades, P/N 6018T30P14, with more than 850 CSN, perform an initial eddy current inspection (ECI) of the fan blades for cracks within 350 CIS after the effective date of this AD. Use paragraphs 3.A. or 3.B. of the Accomplishment Instructions of GEAE SB No. CF34-BJ S/B 72-0229, Revision 01, dated July 30, 2008, to perform the inspection.

(4) For fan blades, P/N 6018T30P14, with 850 or fewer CSN on the effective date of this AD, perform an initial ECI of the fan blades for cracks within 1,200 CSN. Use paragraphs 3.A. or 3.B. of the Accomplishment Instructions of GEAE SB No. CF34-BJ S/B 72-0229, Revision 01, dated July 30, 2008, to perform the inspection.

(5) If you find a crack in the retaining pin holes of the fan blade, remove the blade from service.

Repetitive ECI of the Fan Blades

(6) For fan blades, P/N 6018T30P14, within 600 CSLI, perform an ECI of the fan blades for cracks. Use paragraphs 3.A. or 3.B. of the Accomplishment Instructions of GEAE SB No. CF34-BJ S/B 72-0229, Revision 01, dated July 30, 2008, to perform the inspection.

(7) If you find a crack in the retaining pin holes of the fan blade, remove the blade from service.

Initial Visual Inspection of the Fan Blade Abradable Rub Strip for Wear

(8) For engines with fan blades, P/N 6018T30P14, installed that have any fan blade S/Ns listed in Appendix A of GEAE SB No. CF34-BJ S/B 72-0229, Revision 01, dated July 30, 2008, with 1,200

or more CSN on the effective date of this AD, and that haven't had an ECI of the fan blades for cracks, do the following:

(i) Perform an initial inspection of the fan blade abradable rub strip for wear within 20 CIS after the effective date of this AD. Use paragraph 3.A.(1) of the Accomplishment Instructions of GEAE SB No. CF34-BJ S/B 72-0231, Revision 02, dated November 26, 2008, to perform the inspection.

(ii) If you find a continuous 360 degree rub indication, before further flight, perform a visual inspection of the fan blades for cracks. Use paragraphs 3.A(2)(a) or 3.A(2)(b) of the Accomplishment Instructions of GEAE SB No. CF34-BJ S/B 72-0231, Revision 02, dated November 26, 2008, to perform the inspection.

(iii) If you find a crack in the retaining pin holes of the fan blade, remove the blade from service.

Repetitive Inspection of the Fan Blade Abradable Rub Strip for Wear

(9) For engines with fan blades, P/N 6018T30P14, installed, if you have performed an ECI of the fan blade, you don't need to inspect the fan blade abradable rub strip for wear.

(10) For engines with fan blades, P/N 6018T30P14, installed, within 75 CSLI or 100 HSLI, whichever occurs later, do the following:

(i) Perform a visual inspection of the fan blade abradable rub strip for wear. Use paragraph 3.A.(1) of the Accomplishment Instructions of GEAE SB No. CF34-BJ S/B 72-0231, Revision 02, dated November 26, 2008, to perform the inspection.

(ii) If you find a continuous 360 degree rub indication, before further flight, visually inspect the fan blades using paragraphs 3.A.(2)(a) through 3.A.(2)(b) of the Accomplishment Instructions of GEAE SB No. CF34-BJ S/B 72-0231, Revision 02, dated November 26, 2008.

(iii) If you find a crack in the retaining pin holes of the fan blade, remove the blade from service.

Inspection of the Aft Actuator Head Hose Fitting on CF34-3A1 and CF34-3B Engines

(11) For CF34-3A1 engines, within 300 hours TIS after the effective date of this AD, visually inspect and, if necessary, reposition the aft actuator head hose fitting. Use paragraph 3.A of the Accomplishment Instructions of GEAE SB No. CF34-BJ S/B 73-0062, Revision 02, dated August 27, 2008, to perform the inspection.

(12) For CF34-3B engines, within 400 hours TIS after the effective date of this AD, visually inspect and, if necessary, reposition the aft actuator head hose fitting. Use paragraph 3.A of the Accomplishment Instructions of GEAE SB No. CF34-BJ S/B 73-0062, Revision 02, dated August 27, 2008, to perform the inspection.

Credit for Previous Actions

(m) Inspections previously performed using the following GEAE SBs meet the requirements specified in the indicated paragraphs:

(1) CF34-AL S/B 72-0250, dated August 15, 2008, meet the requirements specified in paragraphs (i)(2) through (i)(4) of this AD.

(2) CF34-AL S/B 73-0046, Revision 01, dated July 1, 2008, or earlier issue, meet the requirements specified in paragraph (i)(7) of this AD.

(3) CF34-BJ S/B 72-0229, dated April 10, 2008, meet the requirements specified in paragraphs (l)(3) and (l)(4) of this AD.

(4) CF34-BJ S/B 72-0231, Revision 01, dated October 1, 2008, or earlier issue, meet the requirements specified in paragraphs (l)(10)(i) and (l)(10)(ii) of this AD.

(5) CF34-BJ S/B 73-0062, Revision 01, dated July 1, 2008, or earlier issue, meet the requirements specified in paragraphs (l)(11) and (l)(12) of this AD.

Installation Prohibitions

(n) After the effective date of this AD:

(1) Do not install any fan blade into any CF34-3A1 engine with fan drive shaft, P/N 6036T78P02, with an airworthiness limitation section fan drive shaft life limit of 22,000 CSN if that fan blade:

(i) Was installed in a CF34-3A1 engine with fan drive shaft, P/N 6036T78P02, with an airworthiness limitation section fan drive shaft life limit of 15,000 CSN; and

(ii) Is listed in Appendix A of GEAE SB No. CF34-BJ S/B 72-0229, Revision 01, dated July 30, 2008; or

(iii) Is listed in Appendix A of GEAE SB No. CF34-BJ S/B 72-0230, Revision 01, dated July 30, 2008.

(2) Do not install any fan blade into any CF34-3A1 engine with fan drive shaft, P/N 6036T78P02, with an airworthiness limitation section fan drive shaft life limit of 15,000 CSN if that fan blade:

(i) Was installed in any CF34-3A1 engine with fan drive shaft, P/N 6036T78P02, with an airworthiness limitation section fan drive shaft life limit of 22,000 CSN; and

(ii) Is listed in Appendix A of GEAE SB No. CF34-AL S/B 72-0245, Revision 01, dated July 3, 2008.

Alternative Methods of Compliance

(o) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Related Information

(p) Contact John Frost, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: john.frost@faa.gov; telephone (781) 238-7756; fax (781) 238-7199, for more information about this AD.

Material Incorporated by Reference

(q) You must use the GE Aircraft Engines service information specified in the following Table 1 to do the actions required by this AD.

Table 1 - Material Incorporated by Reference

Service Bulletin No.	Page	Revision	Date
CF34-AL S/B 73-0046	All	02	August 27, 2008
Total Pages: 8			
CF34-BJ S/B 73-0062	All	02	August 27, 2008
Total Pages: 8			
CF34-BJ S/B 72-0229	All	01	July 30, 2008
Total Pages: 158			

CF34-BJ S/B 72-0230 Total Pages: 153	All	01	July 30, 2008
CF34-BJ S/B 72-0231 Total Pages: 8	All	02	November 26, 2008
CF34-AL S/B 72-0245 Total Pages: 153	All	01	July 03, 2008
CF34-AL S/B 72-0250 Total Pages: 9	All	01	November 26, 2008

(1) The Director of the Federal Register previously approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51, as of January 4, 2010.

(2) For service information identified in this AD, contact General Electric Company, GE-Aviation, Room 285, 1 Neumann Way, Cincinnati, OH 45215, telephone (513) 552-3272; fax (513) 552-3329; e-mail: geae.aoc@ge.com.

(3) You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Burlington, Massachusetts, on December 29, 2009.
Francis A. Favara,
Manager, Engine and Propeller Directorate,
Aircraft Certification Service.

2010-01-05 CFM International, S.A: Amendment 39-16162. Docket No. FAA-2009-0236; Directorate Identifier 2009-NE-06-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective February 18, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to:

(1) CFM International, S.A. CFM56-7B20; -7B22; -7B24; -7B26; -7B27; -7B22/B1; -7B24/B1; -7B27/B1; -7B26/B1; -7B20/3; -7B22/3; -7B24/3; -7B26/3; -7B27/3; -7B22/3B1; -7B24/3B1; -7B27/3B1; -7B26/3B1; -7B26/3F; -7B27/B3; -7B27/3F; -7B27/3B1F; and -7B27/3B3 turbofan engines assembled with a low-pressure (LP) turbine rear frame, part number (P/N) 340-166-254-0; 340-166-255-0; 340-166-256-0; 340-166-257-0; 340-166-258-0; or 340-166-259-0; and

(2) CFM International, S.A. CFM56-7B20/2; -7B22/2; -7B24/2; -7B26/2; and -7B27/2 turbofan engines assembled with a dual annular combustor and an LP turbine rear frame, P/N 340-177-551-0; 340-177-552-0; 340-177-553-0; 340-177-554-0; 340-177-555-0; or 340-177-556-0.

(3) These engines are installed on, but not limited to, Boeing 737-600, 737-700, 737-800, and 737-900 series airplanes.

Unsafe Condition

(d) This AD results from a refined life analysis by the engine manufacturer that shows the need to identify an initial and repetitive inspection threshold for inspecting certain LP turbine rear frames. We are issuing this AD to prevent failure of the LP turbine rear frame from low-cycle-fatigue cracks. Failure of the LP turbine rear frame could result in engine separation from the airplane, possibly leading to loss of control of the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified unless the actions have already been done.

Inspections of LP Turbine Rear Frames

(f) For CFM International, S.A. CFM56-7B20; -7B22; -7B24; -7B26; -7B27; -7B22/B1; -7B24/B1; -7B27/B1; -7B20/3; -7B22/3; -7B24/3; -7B26/3; -7B27/3; -7B22/3B1; -7B24/3B1; -7B27/3B1; -7B26/3F; -7B27/3F; and -7B27/3B1F turbofan engines with an LP turbine rear frame,

P/N 340-166-254-0; 340-166-255-0; 340-166-256-0; 340-166-257-0; 340-166-258-0; or 340-166-259-0, do the following:

(1) Perform an initial eddy current inspection (ECI) of the LP turbine rear frame within 25,000 cycles-since-new (CSN) on the LP turbine rear frame.

(2) For engines with unknown LP turbine rear frame CSN, perform an initial ECI within 300 cycles from the effective date of this AD.

(3) Perform repetitive ECIs of the LP turbine rear frame, using the inspection intervals in paragraph 3.A. (8) of the Accomplishment Instructions of CFM International, S.A. SB No. CFM56-7B S/B 72-0579, Revision 5, dated March 30, 2009.

(4) Use paragraphs 3.A. through 3.A. (7)(d) of the Accomplishment Instructions of CFM International, S.A. Service Bulletin (SB) No. CFM56-7B S/B 72-0579, Revision 5, dated March 30, 2009, to do the ECIs.

(5) Remove LP turbine rear frames from service that have a total cumulated crack length at any location, of 0.79 inch (20 mm) or longer.

(g) For CFM International, S.A. CFM56-7B26/B1; -7B27/B3; -7B26/3B1; and -7B27/3B3 turbofan engines with an LP turbine rear frame, P/N 340-166-254-0; 340-166-255-0; 340-166-256-0; 340-166-257-0; 340-166-258-0; or 340-166-259-0, do the following:

(1) Perform an initial ECI of the LP turbine rear frame within 19,000 CSN on the LP turbine rear frame.

(2) For engines with unknown LP turbine rear frame CSN, perform an initial ECI within 300 cycles from the effective date of this AD.

(3) Perform repetitive ECIs of the LP turbine rear frame, using the inspection intervals in paragraph 3.A. (9) of the Accomplishment Instructions of CFM International, S.A. SB No. CFM56-7B S/B 72-0579, Revision 5, dated March 30, 2009.

(4) Use paragraphs 3.A. through 3.A. (7)(d) of the Accomplishment Instructions of CFM International, S.A. Service Bulletin (SB) No. CFM56-7B S/B 72-0579, Revision 5, dated March 30, 2009, to do the ECIs.

(5) Remove LP turbine rear frames from service that have a total cumulated crack length at any location, of 0.79 inch (20 mm) or longer.

(h) For CFM International, S.A. CFM56-7B20/2; -7B22/2; -7B24/2; -7B26/2; and -7B27/2 turbofan engines assembled with a dual annular combustor and an LP turbine rear frame, P/N 340-177-551-0; 340-177-552-0; 340-177-553-0; 340-177-554-0; 340-177-555-0; or 340-177-556-0, do the following:

(1) Perform an initial ECI of the LP turbine rear frame within 16,350 CSN on the LP turbine rear frame.

(2) For engines with unknown LP turbine rear frame CSN, perform an initial ECI within 300 cycles from the effective date of this AD.

(3) Perform repetitive ECIs of the LP turbine rear frame, using the inspection intervals in paragraph 3.A. (8) of the Accomplishment Instructions of CFM International, S.A. SB No. CFM56-7B S/B 72-0558, Revision 3, dated March 30, 2009.

(4) Use paragraphs 3.A. through 3.A. (7)(d) of the Accomplishment Instructions of CFM International, S.A. SB No. CFM56-7B S/B 72-0558, Revision 3, dated March 30, 2009, to do the ECIs.

(5) Remove LP turbine rear frames from service that have a total cumulated crack length at any location, of 0.43 inch (11 mm) or longer.

Previous Credit

(i) Initial inspection of LP turbine rear frames before the effective date of this AD performed using the Accomplishment Instructions of CFM International, S.A. SB No. CFM56-7B S/B 72-0579, original issue, Revision 1, Revision 2, Revision 3, or Revision 4, satisfy the requirements of paragraphs (f)(1), (f)(2), (g)(1), and (g)(2) of this AD.

(j) Initial inspection of LP turbine rear frames before the effective date of this AD performed using the Accomplishment Instructions of CFM International, S.A. SB No. CFM56-7B S/B 72-0558, original issue, Revision 1, or Revision 2, satisfy the requirements of paragraphs (h)(1) and (h)(2) of this AD.

Alternative Methods of Compliance

(k) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Related Information

(l) European Aviation Safety Agency AD 2009-0009 (corrected), dated January 27, 2009, also addresses the subject of this AD.

(m) Contact Antonio Cancelliere, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: antonio.cancelliere@faa.gov; telephone (781) 238-7751; fax (781) 238-7199, for more information about this AD.

Material Incorporated by Reference

(n) You must use the service information specified in the following Table 1 to perform the inspections required by this AD. The Director of the Federal Register approved the incorporation by reference of the documents listed in the following Table 1 in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact CFM International, Technical Publications Department, 1 Neumann Way, Cincinnati, OH 45215; telephone (513) 552-2800; fax (513) 552-2816, for a copy of this service information. You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Table 1 – Incorporation by Reference

Service Bulletin No.	Page	Revision	Date
CFM56-7B S/B 72-0558	All	3	March 30, 2009
Total Pages: 22			
CFM56-7B S/B 72-0579	All	5	March 30, 2009
Total Pages: 23			

Issued in Burlington, Massachusetts, on December 23, 2009.
Francis A. Favara,
Manager, Engine and Propeller Directorate,
Aircraft Certification Service.

2010-01-06 Bombardier, Inc. (Type Certificate Previously Held by de Havilland, Inc.): Amendment 39-16163. Docket No. FAA-2009-0785; Directorate Identifier 2009-NM-125-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective February 9, 2010.

Affected ADs

(b) This AD supersedes AD 2009-12-13, Amendment 39-15936.

Applicability

(c) This AD applies to Bombardier, Inc. (Type Certificate previously held by de Havilland, Inc.) Model DHC-8-400, DHC-8-401, and DHC-8-402 airplanes, certificated in any category, serial numbers 4135 through 4149 inclusive.

Subject

(d) Air Transport Association (ATA) of America Code 27: Flight Controls.

Reason

(e) The mandatory continuing airworthiness information (MCAI) states:

> There has been one case reported of failure of a shaft (tailstock) on an elevator Power Control Unit (PCU), Part Number (P/N) 390600-1007. Continued actuation of the affected PCU caused damage to the surrounding structure. Subsequent investigation determined that the failure was the result of a material defect and that the shafts installed on a total of 88 suspect PCUs * * * may contain a similar defect.
>
> Each elevator surface has three PCUs, powered by separate independent hydraulic systems, and a single elevator PCU shaft failure may remain dormant. Such a dormant loss of redundancy, coupled with the potential for a failed shaft to produce collateral damage, including damage to hydraulic lines, could possibly affect the controllability of the aircraft.
>
> This directive mandates an identification check for elevator PCU serial numbers, a daily check for correct operation of all suspect PCUs and, finally, replacement of all suspect PCUs.

Restatement of Requirements of AD 2009-12-13, Without Optional Terminating Action:

(f) Unless already done, do the following actions.

(1) Within 30 days after June 26, 2009 (the effective date of AD 2009-12-13), inspect the serial number of each of the six installed elevator PCUs having P/N 390600-1007. If one or more of the six installed elevator PCUs, P/N 390600-1007, have any of the PCU serial numbers 238, 698, 783 through 788 inclusive, 790, 793, 795, 802, 806, 807, 810, 820 through 823 inclusive, 826 through 828 inclusive, 831, 835, 838, 840, 886 through 889 inclusive, or 898 through 955 inclusive; without a suffix "A" after the serial number: Within 30 days after June 26, 2009, perform a check for the correct operation of all installed elevator PCUs in accordance with the procedures detailed in Appendix A, B, or C of Bombardier Q400 All Operator Message 217B, dated April 26, 2007. Repeat the check thereafter before the first flight of each day until the replacement specified in paragraph (g) of this AD is done. The checks in Appendices A and B of Bombardier Q400 All Operator Message 217B, dated April 26, 2007, must be performed by the flight crew, while the check specified in Appendix C of the all operator message must be performed by certificated maintenance personnel.

Note 1: Suffix "A" after the serial number indicates that the PCU has already passed a magnetic particle inspection and is cleared for continued use.

(2) If incorrect operation of any elevator PCU is found during any check required by paragraph (f)(1) of this AD, before further flight, replace the elevator PCU with a PCU, P/N 390600-1007, having a serial number not specified in paragraph (f)(1) of this AD; or with a PCU, P/N 390600-1007, having the suffix "A" after the serial number; in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-27-32, Revision A, dated January 18, 2008.

(3) Actions accomplished before June 26, 2009, according to Bombardier Service Bulletin 84-27-32, dated May 1, 2007, are considered acceptable for compliance with the corresponding action specified in this AD.

New Requirements of This AD

Actions and Compliance

(g) Unless already done, within 2,000 flight hours or 12 months after the effective date of this AD, whichever occurs later, replace all PCUs, P/N 390600-1007, having a serial number specified in paragraph (f)(1) of this AD, and not having suffix "A" after the serial number, with PCUs, P/N 390600-1007, having a serial number not specified in paragraph (f)(1) of this AD; or with PCUs, P/N 390600-1007, having the suffix "A" after the serial number; in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-27-32, Revision A, dated January 18, 2008. This action terminates the requirements of paragraph (f)(1) of this AD.

FAA AD Differences

Note 2: This AD differs from the MCAI and/or service information as follows: No differences.

Other FAA AD Provisions

(h) The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office, ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Program Manager, Continuing Operational Safety, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics

inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to ensure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

Related Information

(i) Refer to MCAI Canadian Airworthiness Directive CF-2009-16, dated April 20, 2009; Bombardier Service Bulletin 84-27-32, Revision A, dated January 18, 2008; and Bombardier Q400 All Operator Message 217B, dated April 26, 2007; for related information.

Material Incorporated by Reference

(j) You must use Bombardier Service Bulletin 84-27-32, Revision A, dated January 18, 2008; and Bombardier Q400 All Operator Message 217B, dated April 26, 2007; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register previously approved the incorporation by reference of Bombardier Service Bulletin 84-27-32, Revision A, dated January 18, 2008; and Bombardier Q400 All Operator Message 217B, dated April 26, 2007; on June 26, 2009 (74 FR 27686, June 11, 2009).

(2) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; e-mail thd.qseries@aero.bombardier.com; Internet http://www.bombardier.com.

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on December 23, 2009.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-01-07 Airbus (Type Certificate Previously Held by Airbus Industrie): Amendment 39-16165. Docket No. FAA-2009-1230; Directorate Identifier 2009-NM-088-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective January 27, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to all Airbus (Type Certificate previously held by Airbus Industrie) Model A340-211, -212, -213, -311, -312, -313, -541, and -642 series airplanes; certificated in any category; all serial numbers.

Note 1: This AD requires revisions to certain operator maintenance documents to include new inspections. Compliance with these inspections is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by these inspections, the operator may not be able to accomplish the inspections described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance according to paragraph (g)(1) of this AD. The request should include a description of changes to the required inspections that will ensure the continued damage tolerance of the affected structure. The FAA has provided guidance for this determination in Advisory Circular (AC) 25-1529-1.

Subject

(d) Air Transport Association (ATA) of America Code 05.

Reason

(e) The mandatory continued airworthiness information (MCAI) states:

> The Certification Maintenance Requirements (CMR) were given in the AIRBUS A340 CMR Document reference 955.3019/92 up to revision 15, which was mandated by EASA AD 2007-0240, and referenced in the Airworthiness Limitations Section (ALS) Part 3. The content of the CMR Document has been recently transferred into the ALS Part 3 Revision 00, which is approved by the European Aviation Safety Agency (EASA).
>
> This Revision 00 of AIRBUS A340 ALS Part 3:

–adds new CMR tasks associated with modifications,
–revises the applicability of some CMR tasks,
–revises some CMR tasks with increased intervals,
–revises a CMR task with a more restrictive interval,
–deletes CMR task 282300-B0002-1-C which is the subject of EASA AD 2007-0279.

Some of those changes constitute more restrictive requirements for aeroplane configuration already in service. Failure to comply with this Revision 00 of AIRBUS A340 ALS Part 3 constitutes an unsafe condition. This new AD * * * requires the implementation of Revision 00 of AIRBUS A340 ALS Part 3.

The unsafe condition is a safety-significant latent failure that would, in combination with one or more other specific failures or events, result in a hazardous or catastrophic failure condition. This AD requires revising the ALS of the Instructions for Continued Airworthiness by incorporating new and revised CMRs.

Actions and Compliance

(f) Unless already done, within 3 months after the effective date of this AD, revise the ALS of the Instructions for Continued Airworthiness by incorporating Airbus A340 ALS, Part 3–Certification Maintenance Requirements (CMR), Revision 00, dated July 31, 2008 ("ALS, Part 3"). Accomplish the actions specified in the ALS, Part 3, at the times specified in the ALS, Part 3, and in accordance with the ALS, Part 3, except as provided by paragraphs (f)(1) and (f)(2) of this AD.

(1) Count the associated interval for any new task from the effective date of this AD, except that Airbus A340 CMR Task 212100-00001-1-C must be performed at the later of the times specified in paragraphs (f)(1)(i) and (f)(1)(ii) of this AD.

(i) Before the accumulation of 2,600 total flight hours since the date of issuance of the original French airworthiness certificate or the date of issuance of the original French or EASA export certificate of airworthiness.

(ii) Within 800 flight hours or 3 months, whichever comes first, after the approval date of Revision 00 of the ALS, Part 3.

(2) Count the associated interval for any revised task from the previous performance of the task.

(3) Doing the revision required by paragraph (f) of this AD terminates the requirements of paragraph (f) of AD 2007-05-08, Amendment 39-14969, for that airplane only.

FAA AD Differences

Note 1: This AD differs from the MCAI and/or service information as follows: No differences.

Other FAA AD Provisions

(g) The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Vladimir Ulyanov, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1138; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector,

your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

Related Information

(h) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2009-0098, dated April 22, 2009; and Airbus A340 ALS, Part 3–Certification Maintenance Requirements (CMR), Revision 00, dated July 31, 2008; for related information.

Material Incorporated by Reference

(i) You must use Airbus A340 ALS, Part 3–Certification Maintenance Requirements (CMR), Revision 00, including Appendices 1 and 2, dated July 31, 2008, to do the actions required by this AD, unless the AD specifies otherwise. (The title page of this document does not specify a revision date; the revision date is specified on all other pages of the document. Only the title page and the Record of Revisions specify the revision level of this document.)

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Airbus SAS–Airworthiness Office–EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80, e-mail airworthiness.A330-A340@airbus.com; Internet http://www.airbus.com.

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on December 23, 2009.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-01-08 The Boeing Company: Amendment 39-16166. Docket No. FAA-2008-0669; Directorate Identifier 2007-NM-350-AD.

Effective Date

(a) This airworthiness directive (AD) is effective February 16, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to The Boeing Company Model 737-600, -700, and -800 series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 737-57A1294, dated April 23, 2007.

Subject

(d) Air Transport Association (ATA) of America Code 57: Wings.

Unsafe Condition

(e) This AD results from drill starts being found on the free flange of the lower stringers of the wing center section during a quality assurance inspection at the final assembly plant. We are issuing this AD to prevent cracks from propagating from drill starts in the free flange, vertical web, and radius between the free flange and vertical web of the lower stringers of the wing center section lower stringers, which could cause a loss of structural integrity of the wing center section and may result in a fuel leak.

Compliance

(f) Comply with this AD within the compliance times specified, unless already done.

Inspection and Related Investigative and Corrective Actions

(g) Before the accumulation of 18,000 total flight cycles, or within 90 days after the effective date of this AD, whichever occurs later, do a detailed inspection of the free flange, vertical web, and radius between the free flange and vertical web of the lower stringers of the wing center section for any drill start, and do all applicable related investigative and corrective actions, by accomplishing all the applicable actions specified in paragraphs 3.B.2 and 3.B.4 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1294, dated April 23, 2007; except as provided in paragraph

(h) of this AD. The applicable related investigative and corrective actions must be done before further flight.

(h) If any crack is found during any inspection required by paragraph (g) of this AD, and Boeing Alert Service Bulletin 737-57A1294, dated April 23, 2007, specifies to contact Boeing for appropriate action: Before further flight, repair the crack using a method approved in accordance with the procedures specified in paragraph (i) of this AD.

Alternative Methods of Compliance (AMOCs)

(i)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Nancy Marsh, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6440; fax (425) 917-6590. Or, e-mail information to 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD, if it is approved by an Authorized Representative for the Boeing Commercial Airplanes Delegation Option Authorization Organization who has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

Material Incorporated by Reference

(j) You must use Boeing Alert Service Bulletin 737-57A1294, dated April 23, 2007, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet https://www.myboeingfleet.com.

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on December 23, 2009.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-01-09 The Boeing Company: Amendment 39-16167. Docket No. FAA-2009-0788; Directorate Identifier 2009-NM-193-AD.

Effective Date

(a) This airworthiness directive (AD) is effective February 16, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to The Boeing Company Model 737-300, -400, and -500 series airplanes, certificated in any category; as identified in Boeing Alert Service Bulletin 737-53A1301, dated September 3, 2009.

Subject

(d) Air Transport Association (ATA) of America Code 53: Fuselage.

Unsafe Condition

(e) This AD results from a report of a hole in the fuselage skin common to stringer S-1 and S-2 left, between STA 827 and STA 847 on an airplane that diverted to an alternate airport due to cabin depressurization and subsequent deployment of the oxygen masks. We are issuing this AD to detect and correct fatigue cracking of the fuselage skin panels at the chem-milled steps, which could result in sudden fracture and failure of the fuselage skin panels, and consequent rapid decompression of the airplane.

Compliance

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Initial and Repetitive Inspections

(g) Before the accumulation of 35,000 total flight cycles, or within 500 flight cycles after the effective date of this AD, whichever occurs later: Except as provided by paragraph (i) of this AD, do an external non-destructive inspection (NDI) to detect cracks in the fuselage skin along the chem-mill steps at stringers S-1 and S-2 right, between STA 827 and STA 847, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1301, dated September 3,

2009. If no cracking is found, repeat the inspection thereafter at intervals not to exceed 500 flight cycles, except as provided by paragraph (i) of this AD.

Repair

(h) If any crack is found during any inspection required by this AD, and Boeing Alert Service Bulletin 737-53A1301, dated September 3, 2009, specifies to contact Boeing for repair instructions: Before further flight, repair the crack using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

Optional Terminating Action for Repetitive Inspections

(i) Installing an external repair doubler along the chem-milled steps at stringers S-1 and S-2 right, between STA 827 and STA 847, constitutes terminating action for the repetitive inspections required by paragraph (g) of this AD for the repaired area only, provided all of the conditions specified in paragraphs (i)(1), (i)(2), and (i)(3) of this AD are met. The initial inspection required by paragraph (g) of this AD must be accomplished.

(1) The repair is installed after September 3, 2009;

(2) The repair was approved by the FAA or by a Boeing Company Authorized Representative or the Boeing Commercial Airplanes Organization Designation Authorization (ODA) authorized by the FAA to make such findings; and

(3) The repair extends a minimum of three rows of fasteners on each side of the chem-mill line in the circumferential direction.

Alternative Methods of Compliance (AMOCs)

(j)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Wayne Lockett, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle ACO, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6447; fax (425) 917-6590. Or, e-mail information to 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes ODA that has been authorized by the Manager, Seattle ACO to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

Material Incorporated by Reference

(k) You must use Boeing Alert Service Bulletin 737-53A1301, dated September 3, 2009, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-

2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet https://www.myboeingfleet.com.

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on December 21, 2009.

Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-01-11 Fokker Services B.V.: Amendment 39-16170. Docket No. FAA-2009-0763; Directorate Identifier 2007-NM-301-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective February 18, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Fokker Services B.V. Model F.28 Mark 0070 and Mark 0100 airplanes, all serial numbers, certificated in any category.

Subject

(d) Air Transport Association (ATA) of America Code 27: Flight Controls.

Reason

(e) The mandatory continuing airworthiness information (MCAI) states:

> Excessive wear and tear of the backlash remover mechanism has been found several times on Goodrich Part Number (P/N) 23400-3B and P[sol]N 23400-7 elevator booster control units (BCU), while corrosion has been found on some components in other BCU. The wear and tear may result in a (partly) blocked operation of the elevator system in the normal (hydraulic) mode, while any corrosion may result in deteriorated elevator control when the BCU is in MANUAL mode.
>
> Fokker Services and Goodrich determined that modification of the affected elevator BCU in accordance with Goodrich Component Service Bulletin (CSB) 23400-27-27 would correct this situation. * * *
>
> [I]t has been decided to require the inspection of aircraft fitted with BCU P/N 23400-3 and P/N 23400-5 (serial numbers MC-001 through MC-288) and the modification of these units in accordance with Goodrich CSB 23400-27-15 (P/N change from 23400-3 to 23400-3B, or from 23400-5 to 23400-7, as applicable).
>
> Previously, CAA-Netherlands AD (BLA) 93-051/3 dated 29 April 1994 [which corresponds to FAA AD 97-03-09] was issued, which requires a periodic inspection of P/N 23400-3 and P/N 23400-5 elevator BCU that could be affected by corrosion, and

allows modification of the BCU in accordance with Fokker Service Bulletin SBF100-27-061 (application of Goodrich CSB 23400-27-15) as (optional) terminating action for these inspections.

* * * In addition, this AD requires the eventual replacement of all affected elevator BCU with modified units.

This new AD does not cancel the repetitive inspection requirements of CAA-NL AD (BLA) 93-051/3 for BCU P/N 23400-3 and P/N 23400-5 as long as these remain installed on any in-service aircraft.

The unsafe condition is wear and tear, and corrosion of the backlash remover mechanism, which can cause a (partly) blocked operation of the elevator system in the normal (hydraulic) mode and deteriorated elevator control when the BCU is in MANUAL mode, which could result in loss of control of the airplane. The required actions include inspecting the backlash remover of the elevator booster control unit to determine the displacement of the pivot bolt; and if necessary, replacing the elevator booster control unit. Depending on the measurement of the displacement, the compliance time for replacement ranges from before further flight to 3,000 flight cycles.

Actions and Compliance

(f) Unless already done, do the following actions.

(1) For airplanes equipped with booster control unit P/N 23400-3B, 23400-7, 23400-3, or 23400-5, within 12 months after the effective date of this AD, perform a one-time inspection of the elevator booster control unit in accordance with Part 1 of the Accomplishment Instructions of Fokker Service Bulletin SBF100-27-088, dated June 4, 2007.

(2) At the time specified in Table 1 of this AD, and depending on the result of the inspection required by paragraph (f)(1) of this AD, replace the elevator booster control unit with a modified unit having P/N 23400-3B or P/N 23400-7, in accordance with Part 2 of the Accomplishment Instructions of Fokker Service Bulletin SBF100-27-088, dated June 4, 2007. The replacement part must be modified in accordance with Goodrich Service Bulletin 23400-27-27, Revision 1, dated September 14, 2007.

Table 1 – Replacement Parameters

Dimension A	Replace within
A < 0.12 millimeters (mm)	Not applicable
0.12 mm ≤ A <0.5 mm	3,000 flight cycles
0.5 mm ≤ A < 1.0 mm	2,000 flight cycles
1.0 mm ≤ A < 1.5 mm	1,000 flight cycles
1.5 mm ≤ A < 2.0 mm	500 flight cycles
2.0 mm ≤ A < 2.5 mm	125 flight cycles
A ≥ 2.5 mm	Before further flight

(3) Within 60 months after the effective date of this AD, replace all remaining unmodified elevator booster control units having P/N 23400-3B or P/N 23400-7 with modified units, in

accordance with Part 2 of the Accomplishment Instructions of Fokker Service Bulletin SBF100-27-088, dated June 4, 2007. The replacement part must be modified in accordance with Goodrich Service Bulletin 23400-27-27, Revision 1, dated September 14, 2007.

(4) Within 60 months after the effective date of this AD, replace all remaining elevator booster control units having P/N 23400-3 or P/N 23400-5 with modified units having P/N 23400-3B or P/N 23400-7, in accordance with Part 2 of the Accomplishment Instructions of Fokker Service Bulletin SBF100-27-088, dated June 4, 2007. The replacement part must be modified in accordance with Goodrich Service Bulletin 23400-27-27, Revision 1, dated September 14, 2007.

(5) As of 12 months after the effective date of this AD, no person may install a Goodrich P/N 23400-3B, P/N 23400-7, P/N 23400-3 or P/N 23400-5 elevator booster control unit on any airplane, unless the conditions of paragraph (f)(5)(i) or (f)(5)(ii), as applicable, are met.

(i) The unit has been inspected in accordance with paragraph (f)(1) of this AD, and the applicable action(s) required by paragraph (f)(2) is accomplished at the time specified in that paragraph.

(ii) The unit having P/N 23400-3B or P/N 23400-7 has been modified in accordance with Goodrich Service Bulletin 23400-27-27, Revision 1, dated September 14, 2007.

(6) As of 60 months after the effective date of this AD, no person may install a Goodrich P/N 23400-3 or P/N 23400-5 elevator booster control unit on any airplane.

FAA AD Differences

Note 1: This AD differs from the MCAI and/or service information as follows: No differences.

Other FAA AD Provisions

(g) The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1137; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

Related Information

(h) Refer to MCAI European Aviation Safety Agency Airworthiness Directive 2009-0032, dated February 17, 2009; Fokker Service Bulletin SBF100-27-088, dated June 4, 2007; and Goodrich Service Bulletin 23400-27-27, Revision 1, dated September 14, 2007; for related information.

Material Incorporated by Reference

(i) You must use Fokker Service Bulletin SBF100-27-088, dated June 4, 2007; and Goodrich Service Bulletin 23400-27-27, Revision 1, dated September 14, 2007; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For Fokker service information identified in this AD, contact Fokker Services B.V., Technical Services Dept., P.O. Box 231, 2150 AE Nieuw-Vennep, the Netherlands; telephone +31 (0)252-627-350; fax +31 (0)252 627 211; e-mail technicalservices.fokkerservices@stork.com; Internet http://www.myfokkerfleet.com.

(3) For Goodrich service information identified in this AD, contact Goodrich Corporation, Landing Gear, 1400 South Service Road, West Oakville L6L 5Y7, Ontario, Canada; telephone 905-825-1568; e[dash]mail jean.breed@goodrich.com; Internet http://www.goodrich.com/TechPubs.

(4) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

(5) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on December 28, 2009.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-01-12 Empresa Brasileira de Aeronautica S.A. (EMBRAER): Amendment 39-16171. Docket No. FAA-2009-0610; Directorate Identifier 2009-NM-021-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective February 18, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model ERJ 170-100 LR, -100 STD, -100 SE, -100 SU, -200 LR, -200 STD, and -200 SU airplanes; certificated in any category; as identified in Embraer Service Bulletins 170-24-0019, dated December 6, 2006; 170-24-0020, dated November 30, 2006; and 170-31-0020, Revision 01, dated May 21, 2008.

Subject

(d) Air Transport Association (ATA) of America Codes 24 and 31: Electrical power and Instruments, respectively.

Reason

(e) The mandatory continuing airworthiness information (MCAI) states:

> The result of re-assessment of rotor burst analysis has shown the possibility of loss of electrical power supply to the following aircraft systems: Air Data System (ADS), Ailerons, Multifunctional spoilers and rudder, which result in loss of the aircraft pitch and yaw control.
>
> * * * * *
>
> Required actions include modifying the electrical wiring in the overhead panel of the cockpit, modifying the air data smart probe 3B power supply bus, and modifying the Aeronautical Radio Incorporated (ARINC) 429 data bus, as applicable.

Actions and Compliance

(f) Unless already done, do the following actions as applicable.

(1) For airplanes identified in Embraer Service Bulletin 170-24-0019, dated December 6, 2006: Within 6,000 flight hours after the effective date of this AD, modify the electrical wiring in the overhead panel of the cockpit in accordance with Embraer Service Bulletin 170-24-0019, dated December 6, 2006.

(2) For airplanes identified in Embraer Service Bulletin 170-24-0020, dated November 30, 2006: Within 6,000 flight hours after the effective date of this AD, change the Air Data Smart Probe 3 channel B power supply bus from ESS2 to ESS3 in accordance with Embraer Service Bulletin 170-24-0020, dated November 30, 2006.

(3) For airplanes identified in Embraer Service Bulletin 170-31-0020, Revision 01, dated May 21, 2008: Within 6,000 flight hours after the effective date of this AD, duplicate the Aeronautical Radio Incorporated (ARINC) 429 airspeed signal for an extension longer than the rotor burst impact area; change the primary power source for the modular avionics unit (MAU) 2 from DC BUS 2 to DC ESS BUS 2 to include an additional ground and to provide dual electrical power to MAU 2; and change the wiring of the slat/flap actuators control electronics (SF-ACE) 1 and 2 to primary actuator control electronics (P-ACE) 1, 2, and 3; in accordance with Embraer Service Bulletin 170-31-0020, Revision 01, dated May 21, 2008.

(4) Actions accomplished before the effective date of this AD according to Embraer Service Bulletin 170-31-0020, dated July 20, 2007, are considered acceptable for compliance with the corresponding actions specified in this AD.

FAA AD Differences

Note 1: This AD differs from the MCAI and/or service information as follows: No differences.

Other FAA AD Provisions

(g) The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Kenny Kaulia, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-2848; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

Related Information

(h) Refer to MCAI Agência Nacional de Aviação Civil (ANAC) Airworthiness Directive 2008-09-01, dated September 30, 2008, and the service information identified in Table 1 of this AD, for related information.

Table 1 – Service Information

Embraer Service Bulletin –	Revision –	Dated –
170-24-0019	Original	December 6, 2006
170-24-0020	Original	November 30, 2006
170-31-0020	01	May 21, 2008

Material Incorporated by Reference

(i) You must use the service information contained in Table 2 of this AD as applicable, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Empresa Brasileira de Aeronautica S.A. (EMBRAER), Technical Publications Section (PC 060), Av. Brigadeiro Faria Lima, 2170–Putim–12227-901 São Jose dos Campos–SP–BRASIL; telephone: +55 12 3927-5852 or +55 12 3309-0732; fax: +55 12 3927-7546; e-mail: distrib@embraer.com.br; Internet: http://www.flyembraer.com.

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Table 2 – *Material incorporated by reference*

Embraer Service Bulletin –	Revision –	Dated –
170-24-0019	Original	December 6, 2006
170-24-0020	Original	November 30, 2006
170-31-0020	01	May 21, 2008

Issued in Renton, Washington, on December 28, 2009.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-02-02 Dassault-Aviation: Amendment 39-16173. Docket No. FAA-2009-1252; Directorate Identifier 2009-NM-248-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective January 28, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Dassault-Aviation Model Falcon 7X airplanes, certificated in any category, all serial numbers.

Subject

(d) Air Transport Association (ATA) of America Code 34: Navigation.

Reason

(e) The mandatory continued airworthiness information (MCAI) states:

> Several occurrences of untimely radio-altimeter lock-up have been reported, where the failed radio-altimeter indicated a negative distance to the ground despite the aircraft was flying at medium or high altitude.
>
> A locked radio-altimeter 1 leads to untimely inhibition of warnings that could be displayed along with certain abnormal conditions while the avionic system switches into landing mode during altitude cruise.
>
> Investigation in order to determine the root cause of radio-altimeter lock-up is in progress. In the meantime, Dassault Aviation has developed an operational procedure that in case of radio-altimeter 1 lock-up allows the crew, by depowering radio-altimeter 1, to restore in flight the system warning performance.
>
> Failure to comply with this interim flight procedure may cause the crew to be unaware of possible system failures that could require urgent crew's actions.
>
> This AD mandates application of a new abnormal Airplane Flight Manual (AFM) procedure when radio-altimeter 1 lock-up occurs and prohibits dispatch of the aeroplane with any radio-altimeter inoperative.

Compliance

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Actions

(g) Within 14 days after the effective date of this AD: Revise the Limitations Section of the Dassault Falcon 7X Airplane Flight Manual (AFM) to include the following statement. This may be done by inserting a copy of this AD in the AFM.

"If radio-altimeter 1 lock-up conditions occur in flight, power off radio-altimeter 1, in accordance with the instructions of Falcon 7X AFM procedure 3-140-65.

Dispatch of the airplane with any radio-altimeter inoperative is prohibited."

Note 1: When a statement identical to that in paragraph (g) of this AD has been included in the general revisions of the AFM, the general revisions may be inserted into the AFM, and the copy of this AD may be removed from the AFM.

FAA AD Differences

Note 2: This AD differs from the MCAI and/or service information as follows: No differences.

Other FAA AD Provisions

(h) The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1137; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

Related Information

(i) Refer to MCAI EASA Airworthiness Directive 2009-0208, dated October 13, 2009, for related information.

Material Incorporated by Reference

(j) None.

Issued in Renton, Washington, on December 28, 2009.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

FAA
Aviation Safety

AIRWORTHINESS DIRECTIVE

www.faa.gov/aircraft/safety/alerts/
www.gpoaccess.gov/fr/advanced.html

2010-02-03 Airbus: Amendment 39-16174. Docket No. FAA-2009-1251; Directorate Identifier 2009-NM-133-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective January 29, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Airbus Model A340-211, -212, -213, -311, -312, and -313 airplanes, all manufacturer serial numbers; certificated in any category.

Subject

(d) Air Transport Association (ATA) of America Code 71: Powerplant.

Reason

(e) The mandatory continued airworthiness information (MCAI) states:

A recent review of the A340-200/300 fleet has shown that the current utilization rate of the aeroplanes is different from the assumptions used at the time of A340 initial certification. New calculations have been performed taking into account an updated mission profile to determine the impact to the loads on the forward engine mount.

Engineering analysis using the new calculated loads has shown that the structural integrity of the forward engine mount cannot be guaranteed after either thrust link has accumulated 15500 Flight Cycles (FC).

Consequently, this AD introduces a Limit of Validity (LOV) of 15 500 FC for CFM 56-5C forward engine mount thrust links Part Number (P/N) 340-7005-3 and P/N 340-7005-4.

In addition, this AD requires establishing the deadline for replacement of forward engine mount thrust link assemblies, to trace the life of these assemblies and to replace them no later than the calculated deadline.

A loss of structural integrity of the forward engine mounts could lead to the loss of the load path for the forward engine mount and damage to other engine mount structures, which could result in failure of the forward engine mount, possible separation of the engine from the airplane, damage to the wing, or loss of control of the airplane.

Compliance

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Actions

(g) Unless already done, do the following actions.

(1) At the applicable time in paragraph (g)(1)(i) or (g)(1)(ii) of this AD: Calculate the flight cycles, as applicable, and replace all CFM 56-5C forward engine mount thrust links P/N 340-7005-3 or P/N 340-7005-4, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A340-71-4006, Revision 01, dated May 14, 2009.

Note 1:

P/N 340-7005-3 and P/N 340-7005-4 are the part numbers for only the link. P/N 340-7005-503 and P/N 340-7005-504 are the part numbers for the assembly (comprising the bearing and the link).

(i) For airplanes with thrust links for which the history of the part is available: Replace in accordance with Airbus Mandatory Service Bulletin A340-71-4006, Revision 01, dated May 14, 2009, prior to the accumulation of 15,500 total flight cycles on the part, or within 90 days from the effective date of the AD, whichever occurs later.

(ii) For airplanes with thrust links for which the part history is partial or unknown: Within 30 days after the effective date of this AD, calculate the replacement date in accordance with the calculation method provided in Airbus Mandatory Service Bulletin A340-71-4006, Revision 01, dated May 14, 2009, and replace the part no later than the calculated replacement date.

(2) Repeat the replacement required by paragraph (g)(1) of this AD at intervals not to exceed 15,500 flight cycles on the part in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A340-71-4006, Revision 01, dated May 14, 2009.

FAA AD Differences

Note 2:

This AD differs from the MCAI and/or service information as follows: No differences.

Other FAA AD Provisions

(h) The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Vladimir Ulyanov, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1138; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

Related Information

(i) Refer to Mandatory Continuing Airworthiness Information (MCAI) European Aviation Safety Agency (EASA) Airworthiness Directive 2009-0115, dated May 29, 2009; and Airbus Mandatory Service Bulletin A340-71-4006, Revision 01, dated May 14, 2009; for related information.

Material Incorporated by Reference

(j) You must use Airbus Mandatory Service Bulletin A340-71-4006, Revision 01, dated May 14, 2009, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Airbus SAS–Airworthiness Office–EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; e-mail airworthiness.A330-A340@airbus.com; Internet http://www.airbus.com.

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on December 30, 2009.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

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BILLING CODE 4910-13-P

2010-02-04 The Boeing Company: Amendment 39-16175. Docket No. FAA-2009-0657; Directorate Identifier 2009-NM-048-AD.

Effective Date

(a) This airworthiness directive (AD) is effective February 18, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, certificated in any category; as identified in Boeing Service Bulletin 737-28-1272, dated October 31, 2008.

Subject

(d) Air Transport Association (ATA) of America Code 28: Fuel.

Unsafe Condition

(e) This AD requires replacing engine fuel shutoff valves for the left and right main tanks. This AD results from a report of a failed engine start, which was caused by an internally fractured engine fuel shutoff valve. We are issuing this AD to prevent the failure of the valve in the closed position, open position, or partially open position, which could result in engine fuel flow problems and possible uncontrolled fuel leak or fire.

Compliance

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Replacement of the Engine Fuel Spar Valve Body of the Left and Right Wing Main Tanks

(g) Within 60 months after the effective date of this AD: Replace the engine fuel spar valve bodies of the left and right wing main tanks in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737-28-1272, dated October 31, 2008.

Note 1: Boeing Service Bulletin 737-28-1272, dated October 31, 2008, refers to ITT Aerospace Controls Service Bulletin 125334D-28-02, dated August 27, 2008, as an additional source of guidance for modifying the valve body assembly.

Parts Installation

(h) As of the effective date of this AD, no person may install any engine fuel shutoff valve with ITT Aerospace Controls part number 125334D-1 (Boeing part number S343T003-40) on any airplane at the spar valve location. A valve that has been modified in accordance with Boeing Service Bulletin 737-28-1272, dated October 31, 2008, to the new ITT 125334D-2 part number (Boeing part number S343T003-67) may be installed at the spar valve location.

(i) As of the effective date of this AD, no valve with ITT Aerospace Controls part number 125334D-1 (Boeing part number S343T003-40) that has been removed from the spar location may be reinstalled on any airplane in any location unless it has been modified in accordance with Boeing Service Bulletin 737-28-1272, dated October 31, 2008, to the new ITT 125334D-2 part number (Boeing part number S343T003-67).

Alternative Methods of Compliance (AMOCs)

(j)(1) The Manager, Seattle Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Samuel Spitzer, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6510; fax (425) 917-6590. Or, e-mail information to 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

Material Incorporated by Reference

(k) You must use Boeing Service Bulletin 737-28-1272, dated October 31, 2008, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet https://www.myboeingfleet.com.

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

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Ali Bahrami,
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