FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES
LARGE AIRCRAFT

BIWEEKLY 2010-11

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Federal Aviation Administration
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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

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Biweekly 2010-03

2009-21-10 R1		AVOX Systems and B/E Aerospace	Appliance: Oxygen cylinder assemblies
2009-26-13		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343, 340-211, -212, -213, -311, -312, and -313
2010-01-02	S 2005-15-08	Boeing	747-100B SUD, -200B, -300, -400, and -400D
2010-01-10	S 2007-01-15	Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747SR, and 747SP
2010-02-06		Sicma Aero Seat	Appliance: 90xx and 92xx series passenger seats
2010-02-09		Airbus	A318
2010-02-10		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343 series airplanes; Model A340-211, -212, -213, -311, -312, -313 series airplanes; and Model A340-541 and -642
2010-02-11		BAE Systems	BAe 146-100A, -200A, and -300A series airplanes; and BAE SYSTEMS (Operations) Limited Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2010-02-12		Fokker Services B.V	F.28 Mark 0070 and 0100

Biweekly 2010-04

2010-03-05		Boeing	747-200C and -200F
2010-03-07		Embraer	EMB-135BJ, EMB-135ER, -135KE, -135KL, -135LR, EMB-145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP
2010-03-08	S 2003-03-02	Boeing	767-200, -300 and -300F
2010-04-01		Dassault Aviation	Falcon 900EX
2010-04-02		Airbus	A310-221, -222, -322, -324, and -325 airplanes, and Model A300 B4-620, B4-622, B4-622R, and F4-622R
2010-04-03		Airbus	A310-203, -204, -221, -222, -304, -322, -324, and -325

Biweekly 2010-05

2009-06-05 R1		Bombardier, Inc	CL-600-1A11 (CL-600), CL-600-2A12 (CL-601), CL-600-2B16 (CL-601-3A & CL-601-3R), CL-600-2B16 (CL-604)
2010-04-04		Bombardier, Inc	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705)
2010-04-08		Embraer	ERJ 190-100 LR, -100 IGW, -100 STD, -200 STD, -200 LR, and -200 IGW
2010-04-09		Airbus	A330-201, -202, -203, -223, and -243, A340-211, -212, and -213 airplanes; and Model A340-311, -312, and -313
2010-04-10	S 2009-10-07	Airbus	A380-841, -842, and -861
2010-04-13		Airbus	A310-203, A310-221, and A310-222, A300 F4-605R and A300 F4-622R
2010-04-16		SICLI	Appliance: Portable fire extinguishers
2010-05-01		ATR-GIE Avions de Transport Régional	ATR42-200, -300, -320, and -500 airplanes; and Model ATR72-101, -201, -102, -202, -211, -212, and -212A
2010-05-04		McDonnell Douglas Corporation	MD-90-30
2010-05-05	S 2007-15-08	BAE Systems	ATP
2010-05-06		Airbus	A340-541 and -642
2010-05-07		Airbus	A340-211, -212, and -213 airplanes; and Model A340-311, -312, and -313

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Biweekly 2010-06

2009-22-05	S 2008-23-16	Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440)
2010-04-09	COR	Airbus	A330-201, -202, -203, -223, and -243, A340-211, -212, and -213 airplanes; and Model A340-311, -312, and -313
2010-04-12		Bombardier, Inc.	DHC-8-101, DHC-8-102, DHC-8-103, DHC-8-106, DHC-8-201, DHC-8-202, DHC-8-301, DHC-8-311, and DHC-8-315
2010-05-03		Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP
2010-05-09		Dowty Propellers	Prolpeller: R354/4-123-F/13, R354/4-123-F/20, R375/4-123-F/21, R389/4-123-F/25, R389/4-123-F/26, and R390/4-123-F/27
2010-05-11		Boeing	747-100, 747-200B, 747-300, and 747SR
2010-05-12		Bombardier, Inc	DHC-8-102, DHC-8-103, DHC-8-106, DHC-8-201, and DHC-8-202
2010-05-13	S 2006-07-12	Boeing	737-100, -200, -200C, -300, -400, and -500
2010-05-14		Bombardier, Inc	CL-600-2B19 (Regional Jet Series 100 & 440)
2010-06-01		Airbus	A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; Model A320-111, -211, -212, -214, -231, -232, and -233 airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232
2010-06-04		Airbus	See AD
2010-06-05		Airbus	See AD
2010-06-51	E	Boeing	737-600, -700, -700C, -800, -900, and -900ER

Biweekly 2010-07

97-17-04 R1	R	Pratt & Whitney	Engine: JT8D-209, -217, -217C, and -219
2010-05-13	COR, S 2006-07-12	Boeing	737-100, -200, -200C, -300, -400, and -500
2010-06-09		Boeing	777-200, -200LR, -300, -300ER, and 777F
2010-06-13		Learjet	45
2010-06-15		General Electric Company	Engine: CF6-45A, CF6-45A2, CF6-50A, CF6-50C, CF6-50CA, CF6-50C1, CF6-50C2, CF6-50C2B, CF6-50C2D, CF6-50C2F, CF6-50C2R, CF6-50E, CF6-50E1, and CF6-50E2,
2010-06-16		Boeing	767-200, -300, -300F, and -400ER
2010-06-18		International Aero Engines	Engine: V2500-A1, V2522-A5, V2524-A5, V2525-D5, V2527-A5, V2527E-A5, V2527M-A5, V2528-D5, V2530-A5, and V2533-A5
2010-07-04		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, and -100 SU airplanes; Model ERJ 170-200 LR, -200 SU, and -200 STD airplanes; Model ERJ 190-100 STD, -100 LR, -100 ECJ, and -100 IGW

Biweekly 2010-08

2010-06-10		Boeing	767-200, -300, and -300F
2010-06-14		Rolls-Royce plc	Ewngine: RB211-Trent 875-17, Trent 877-17, Trent 884-17, Trent 884B-17, Trent 892-17, Trent 892B-17, and Trent 895-17
2010-06-17		Boeing	757-200, -200CB, -200PF, and -300
2010-06-51		Boeing	737-600, -700, -700C, -800, -900, and -900ER
2010-07-01	S 2009-24-05	Rolls-Royce plc	See AD
2010-07-02	S 2006-22-05	Honeywell, Inc.	Appliance: Honeywell Primus II RNZ-850( )/-851( )
2010-07-03	S 2006-08-02	Boeing	747-200C and -200F
2010-07-06		Bombardier, Inc.	BD-100-1A10 (Challenger 300)
2010-07-08		Kelly Aerospace Energy Systems, LLC	Appliance: Kelly Aerospace Energy Systems
2010-07-09	S 2007-02-05	Rolls-Royce plc	Engine: RB211-Trent 768-60, RB211-Trent 772-60, and RB211-Trent 772B-60
2010-07-10		Airubs	A300 B2-1C, B2K-3C, B2-203, B4-2C, B4-103, and B4-20

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Biweekly 2010-09			
2010-08-02		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, -100 SU, -200 LR, -200 STD, -200 SU, ERJ 190-100 STD, -100 LR, -100 IGW, -100 ECJ, -200 STD, -200 LR, and -200 IGW
2010-08-03	S 2009-04-11	Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440)
2010-08-05		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343, A340-311, -312, and -313
2010-08-06		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, -100 SU, -200 LR, -200 STD, and -200 SU, ERJ 190-100 STD, -100 LR, -100 IGW, -200 STD, -200 LR, and -200 IGW
2010-08-07		Airbus	A340-541 and -642
2010-08-08		Airbus	A330-243, -341, -342, and -343
2010-09-08		General Electric Company	Engine: CJ610 series turbojet and CF700
Biweekly 2010-10			
2002-23-20	COR	Dassault Aviation	900EX, Mystere Falcon 900
2010-01-04	COR, S 2009-24-11	General Electric Company	Engine: CF34-1A, CF34-3A, CF34-3A1, CF34-3A2, CF34-3B, and CF34-3B1
2010-06-04	COR	Airbus	A300 B2-1C, A300 B2-203, A300 B2K-3C, A300 B4-103, A300 B4-203, and A300 B4-2C, A310-203, A310-204, A310-221, A310-222, A310-304, A310-322, A310-324, and A310-325, A300 B4-601, A300 B4-603, A300 B4-605R, A300 B4-620, A300 B4-622, and A300 B4-622R
2010-09-02		British Aerospace Regional Aircraft	Jetstream Series 3101 and Jetstream Model 3201
2010-09-03		Boeing	747-200B
2010-09-04		Honeywell International Inc.	Appliance: Primus EPIC and Primus APEX flight management systems (FMS)
2010-09-05	S 2010-06-51	Boeing	737-600, -700, -700C, -800, -900, and -900ER
2010-09-06		Bombardier, Inc.	CL-600-2C10 (Regional Jet Series 700, 701 & 702), CL-600-2D15 (Regional Jet Series 705) and Model CL-600-2D24 (Regional Jet Series 900)
2010-09-07		Bombardier, Inc.	DHC-8-400, -401, and -402
2010-09-10	S 2003-04-21 R!	Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440)
2010-09-11	S 93-01-11	BAE Systems (Operations) Limited	BAe 146-100A, -200A, and -300A series airplanes, and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2010-09-12		McDonnell Douglas Corporation	Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F (KC-10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, MD-10-30F, MD-11, and MD-11F
2010-09-14	S 2009-01-01	CFM International, S.A.	Engine: CFM56-5B1/P, -5B2/P, -5B3/P, -5B3/P1, -5B4/P, -5B5/P, -5B6/P, -5B7/P, -5B8/P, -5B9/P, -5B1/2P, -5B2/2P, -5B3/2P, -5B3/2P1, -5B4/2P, -5B4/P1, -5B6/2P, -5B4/2P1, and -5B9/2P
2010-10-04		Bombardier, Inc.	DHC-8-400, -401, and -402

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Biweekly 2010-11

2009-26-09	COR	General Electric Company	Engine: CF34-1A, -3A, -3A1, -3A2, -3B, and -3B1
2010-10-05	S 94-12-04	Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-300, 747SR, and 747SP
2010-10-07		Empresa Brasileira de Aeronautica S.A.	ERJ 170-100 LR, -100 STD, -100 SE, -100 SU, -200 LR, -200 STD, and -200 SU, ERJ 190-100 ECJ, -100 LR, -100 IGW, -100 STD, -200 STD, -200 LR, and -200 IGW
2010-10-08		Airbus	A318-111, -112, -121, and -122 airplanes; Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; Model A320-111, -211, -212, -214, -231, -232, and -233 airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232
2010-10-11		Empresa Brasileira de Aeronautica S.A.	EMB-135BJ, -135ER, -135KE, -135KL, -135LR, -145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP
2010-10-13		BAE Systems	BAe 146-100A, -200A, and -300A series airplanes; and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2010-10-18		Bombardier, Inc.	BD-100-1A10 (Challenger 300)
2010-10-19	S 2010-02-03	Airbus	A340-211, -212, -213, -311, -312, and -313
2010-10-20		McDonnell Douglas	DC-9-31, DC-9-32, DC-9-32 (VC-9C), DC-9-32F, DC-9-33F, DC-9-34, DC-9-34F, and DC-9-32F (C-9A, C-9B), DC-9-41, and DC-9-51
2010-10-21		Bombardier, Inc.	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900)
2010-10-22	S 2005-23-12	BAE Systems	BAe 146-100A, -200A, and -300A series airplanes; and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2010-10-23	S 70-16-02	Dowty Propellers	R175/4-30-4/13; R175/4-30-4/13e; R184/4-30-4/50; R193/4-30-4/50; R193/4-30-4/61; R193/4-30-4/64; R193/4-30-4/65; R193/4-30-4/66; R.209/4-40-4.5/2; R212/4-30-4/22; R.245/4-40-4.5/13; R257/4-30-4/60; and R.259/4-40-4.5/17
2010-10-24		Dassault Aviation	FALCON 2000 and FALCON 2000EX
2010-10-25		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes; and Airbus Model A340-311, -312, and -313
2010-10-26	S 2007-14-02	Bombardier, Inc.	CL-600-1A11 (CL-600), CL-600-2A12 (CL-601), CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604)
2010-11-02	S 2007-03-05	Gulfstream Aerospace LP	100 airplanes; and Model Astra SPX and 1125 Westwind
2010-11-03		Airbus	A300 B2-1A, B2-1C, B2K-3C, B2-203, B4-2C, B4-103, B4-203, B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, and C4-605R Variant F airplanes; and Model A310-203, -204, -221, -222, -304, -322, -324, and -325

CORRECTION: [*Federal Register: May 20, 2010 (Volume 75, Number 97); Page 28188; www.access.gpo.gov/su_docs/aces/aces140.html*]

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-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, 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-BJ 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-BJ 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-BJ 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-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, 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-BJ 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-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, 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.

2010-10-05 The Boeing Company: Amendment 39-16284. Docket No. FAA-2009-1066; Directorate Identifier 2009-NM-028-AD.

Effective Date

(a) This AD becomes effective June 21, 2010.

Affected AD

(b) This AD supersedes AD 94-12-04, Amendment 39-8932.

Applicability

(c) This AD applies to The Boeing Company Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-300, 747SR, and 747SP series airplanes, certificated in any category, as identified in Boeing Service Bulletin 747-53A2367, Revision 3, dated January 15, 2009.

Note 1: Airplanes having line number 629, 635, 637, 650, 666, 667, 673, 675, 683, 713, 750, or 810 are Group 5 airplanes.

Subject

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

Unsafe Condition

(e) This AD results from a structural review of affected skin lap joints for widespread fatigue damage. The Federal Aviation Administration is issuing this AD to prevent fatigue cracking in certain lap joints, 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 94-12-04, With Revised Service Information

Repetitive Inspections

(g) For airplanes identified in Boeing Service Bulletin 747-53-2367, dated December 18, 1991: Prior to the accumulation of 22,000 full pressure flight cycles (or, if the external skin panel of an affected lap joint has been replaced, prior to the accumulation of 22,000 full pressure flight cycles

since skin replacement), or within 1,000 landings after July 13, 1994 (the effective date of AD 94-12-04), whichever occurs later, perform an external surface high frequency eddy current (HFEC) inspection of the skin around the upper row of fasteners, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 747-53-2367, dated December 18, 1991; Boeing Service Bulletin 747-53-2367, Revision 1, dated January 27, 1994; Boeing Alert Service Bulletin 747-53A2367, Revision 2, dated October 30, 2008; or Boeing Service Bulletin 747-53A2367, Revision 3, dated January 15, 2009. As of the effective date of this AD, only Revision 3 may be used.

(1) If no crack is found, repeat the inspection thereafter at intervals not to exceed 3,000 full pressure flight cycles until the inspections required by paragraph (h) of this AD are done.

(2) If any crack is found, accomplish paragraphs (g)(2)(i) and (g)(2)(ii) of this AD.

(i) Prior to further flight, perform an open hole HFEC inspection to detect cracking in the upper row fastener holes between the adjacent frames, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 747-53-2367, dated December 18, 1991; Boeing Service Bulletin 747-53-2367, Revision 1, dated January 27, 1994; Boeing Alert Service Bulletin 747-53A2367, Revision 2, dated October 30, 2008; or Boeing Service Bulletin 747-53A2367, Revision 3, dated January 15, 2009. Prior to further flight, repair any crack found, in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA.

Note 2: Guidance on repairing cracking can be found in Chapter 53-30-03 of the Boeing 747 Structural Repair Manual.

(ii) Repeat the inspection required by paragraph (g) of this AD thereafter at intervals not to exceed 3,000 full pressure flight cycles until the inspections required by paragraph (h) of this AD are done.

New Requirements of This AD

Repetitive Inspections/Investigative and Corrective Actions

(h) For all airplanes: Do initial and repetitive HFEC inspections for cracks of lap joints in Sections 41, 42, 44, and 46, by doing all the actions, including all applicable related investigative and corrective actions, specified in the Accomplishment Instructions of Boeing Service Bulletin 747-53A2367, Revision 3, dated January 15, 2009, except as provided by paragraph (l) of this AD. Do the inspections at the applicable times specified in paragraph 1.E. of Boeing Service Bulletin 747-53A2367, Revision 3, dated January 15, 2009, except as required by paragraph (k) of this AD. Do all applicable related investigative and corrective actions before further flight. Accomplishing the inspections required by this paragraph ends the repetitive inspections required by paragraph (g) of this AD. Do the actions required by paragraph (h) of this AD until the modification required by paragraph (j) of this AD is done.

(i) For areas on which a lap joint repair was installed and the repair doubler is greater than or equal to 40 inches long: Do initial and repetitive internal HFEC inspections for cracks, as required by paragraph (h) of this AD, by doing all the applicable actions, including applicable corrective actions, specified in the Accomplishment Instructions of Boeing Service Bulletin 747-53A2367, Revision 3, dated January 15, 2009, except as provided by paragraph (l) of this AD. Do the inspection and corrective actions at the times specified in paragraph 1.E. of Boeing Service Bulletin 747-53A2367, Revision 3, dated January 15, 2009, except as required by paragraph (k) of this AD.

Terminating Action

(j) Before the accumulation of 30,000 total flight cycles or within 3,000 flight cycles after the effective date of this AD, whichever occurs later: Modify the applicable lap joints in Sections 41 and 42 by doing all the actions specified in the Accomplishment Instructions of Boeing Service Bulletin 747-53A2367, Revision 3, dated January 15, 2009, except as required by paragraph (l) of this AD. Accomplishing this modification terminates the repetitive inspection requirements of this AD for the length of lap joint that is modified.

Exceptions to Boeing Service Bulletin 747-53A2367, Revision 3, Dated January 15, 2009

(k) Where Boeing Service Bulletin 747-53A2367, Revision 3, dated January 15, 2009, specifies compliance times "from the date on the original issue of this service bulletin [12/18/91]," this AD requires compliance within the specified compliance time after July 13, 1994 (the effective date of AD 94-12-04). Where Boeing Service Bulletin 747-53A2367, Revision 3, dated January 15, 2009, specifies compliance times "after the date on Revision 2 of this service bulletin [10/30/08]," this AD requires compliance within the specified compliance time after the effective date of this AD.

(l) Where Boeing Service Bulletin 747-53A2367, Revision 3, dated January 15, 2009, specifies to contact Boeing for repair or modification instructions: Before further flight, repair or modify using a method approved in accordance with the procedures specified in paragraph (m) of this AD.

Alternative Methods of Compliance (AMOCs)

(m)(1) The Manager, Seattle ACO, 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 ACO, 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) 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 Organization Designation Authorization (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.

(4) AMOCs approved previously in accordance with AD 94-12-04 are approved as alternative methods of compliance with the corresponding requirements of this AD.

Material Incorporated by Reference

(n) You must use the service information specified in Table 1 of this AD, as applicable, to do the actions required by this AD, unless the AD specifies otherwise.

Table 1 – All material incorporated by reference

Document	Revision	Date
Boeing Alert Service Bulletin 747-53A2367	2	October 30, 2008
Boeing Service Bulletin 747-53-2367	Original	December 18, 1991
Boeing Service Bulletin 747-53-2367	1	January 27, 1994
Boeing Service Bulletin 747-53A2367	3	January 15, 2009

(1) The Director of the Federal Register approved the incorporation by reference of the Boeing service information specified in Table 2 of this AD under 5 U.S.C. 552(a) and 1 CFR part 51.

Table 2 – New material incorporated by reference

Document	Revision	Date
Boeing Alert Service Bulletin 747-53A2367	2	October 30, 2008
Boeing Service Bulletin 747-53A2367	3	January 15, 2009

(2) The Director of the Federal Register previously approved the incorporation by reference of the Boeing service information contained in Table 3 of this AD on July 13, 1994 (59 FR 30277, June 13, 1994).

Table 3 – Material previously incorporated by reference

Document	Revision	Date
Boeing Service Bulletin 747-53-2367	Original	December 18, 1991
Boeing Service Bulletin 747-53-2367	1	January 27, 1994

(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.

(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 April 27, 2010.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-10-07 Empresa Brasileira de Aeronautica S.A. (EMBRAER): Amendment 39-16286. Docket No. FAA-2009-0614; Directorate Identifier 2009-NM-045-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective June 17, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to the airplanes certificated in any category, identified in paragraphs (c)(1) and (c)(2) of the AD.

(1) EMBRAER Model ERJ 170-100 LR, -100 STD, -100 SE, -100 SU, -200 LR, -200 STD, and -200 SU airplanes, equipped with outboard slat skew sensor part number (P/N) 1702286A or 1702288A.

(2) EMBRAER Model ERJ 190-100 ECJ, -100 LR, -100 IGW, -100 STD, -200 STD, -200 LR, and -200 IGW airplanes, equipped with outboard slat skew sensor P/N 1702286A or 1702288A.

Subject

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

Reason

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

> "It has been found the occurrence of outboard slat skew sensor failure in open or closed position. The combination of an outboard slat skew sensor failed closed, an outboard slat actuator structural failure (rupture) and its adjacent actuator torque limiter failing high (allows higher loads to the panel structure) occurring in the same slat surface, under normal flight loads, may lead [the] slat surface to detach from the wing with the possibility of hitting and damaging the horizontal stabilizer and elevator, which may affect the airplane controllability."

* * * * *

Corrective actions include repetitive operational tests of the outboard slat skew sensor, and replacement with a serviceable outboard slat skew sensor if necessary.

Actions and Compliance

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

(1) At the applicable compliance time in paragraph (f)(1)(i) or (f)(1)(ii) of this AD: Perform an operational test (OPT) of any outboard slat skew sensor having P/N 1702286A or P/N 1702288A. If any outboard slat skew sensor fails the test, replace the sensor with a serviceable sensor before further flight. Do the actions using a method approved by either the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the Agência Nacional de Aviação Civil (ANAC) (or its delegated agent).

(i) For Model ERJ 170 airplanes: Within 1,320 flight hours after the effective date of this AD.

(ii) For Model ERJ 190 airplanes: Within 1,320 flight hours or 12 months after the effective date of this AD, whichever occurs first.

Note 1: Guidance on performing the OPT required by paragraph (f)(1) of this AD can be found in Task 27-83-01-710-801-A, "Outboard Slat Skew Sensor–Operational Test," dated October 28, 2008, of the Embraer 170/175 or 190 Aircraft Maintenance Manual (AMM).

Note 2: For the purpose of this AD, an OPT is "A task to determine if an item is fulfilling its intended purpose. Since it is a failure-finding task, it does not require quantitative tolerances."

Note 3: For the purpose of this AD, a serviceable sensor is one that has passed the OPT required by paragraph (f)(1) of this AD.

(2) Repeat the OPT required by paragraph (f)(1) of this AD thereafter at intervals not to exceed 1,320 flight hours.

FAA AD Differences

Note 4: 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. 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 Brazilian Airworthiness Directives 2009-02-02 and 2009-02-03, both effective February 16, 2009, for related information.

Material Incorporated by Reference

(i) None.

Issued in Renton, Washington, on April 28, 2010.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-10-08 Airbus: Amendment 39-16287. Docket No. FAA-2010-0129; Directorate Identifier 2009-NM-245-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective June 21, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Airbus Model A318-111, -112, -121, and -122 airplanes; Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; Model A320-111, -211, -212, -214, -231, -232, and -233 airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes; certificated in any category; all manufacturer serial numbers; except airplanes that have received Airbus modification 37317 in production.

Subject

(d) Air Transport Association (ATA) of America Code 24: Electrical power.

Reason

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

> Several occurrences of loss of the AC [alternating current] BUS 1 have been reported which led in some instances to the loss of the AC ESS [essential] BUS and DC [direct current] ESS BUS and connected systems. The affected systems include multiple flight deck Display Units (Primary Flight Display, Navigation Display and Upper Electronic Centralised Aircraft Monitoring display).
>
> The reasons for these events have been investigated but have not been fully established for all cases.
>
> Due to the range of system losses some crews reported difficulty in establishing the failure cause during the events and, consequently, the appropriate actions to be taken may not be completed in a timely manner.
>
> The loss of multiple display units, if not corrected expediently during a high workload period, potentially affects the capability of the flight crew and could contribute to a

loss of situational awareness and consequent control of the aeroplane, which would constitute an unsafe condition.

This AD therefore mandates the modification of the electrical network configuration management logic consisting in adding an automatic switching of the AC and DC ESS BUS power supply such that upon the loss of the AC BUS 1, the AC BUS 2 will automatically take over the power supply. On pre-MOD aeroplanes, this power supply switching can only be accomplished manually from the cockpit and is covered by an Electronic Centralized Aircraft Monitoring (ECAM) procedure.

The modification of the electrical power distribution system includes, depending on the configuration, adding a new circuit breaker and new relay to the AC/DC ESS BUS circuit, and adding a diode between a certain relay and terminal block.

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 48 months after the effective date of this AD, modify the electrical power distribution system, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-24-1120, Revision 03, dated July 10, 2009.

(h) Actions accomplished before the effective date of this AD, in accordance with any service bulletin identified in Table 1 of this AD, are considered acceptable for compliance with the corresponding actions specified in this AD.

Table 1 – Credit service information

Airbus Service Bulletin –	Revision –	Dated –
A320-24-1120	Original	May 31, 2007
A320-24-1120	01	December 19, 2007
A320-24-1120	02	July 8, 2008

FAA AD Differences

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

Other FAA AD Provisions

(i) 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: Tim Dulin, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-2141; 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

(j) Refer to MCAI European Aviation Safety Agency (EASA) Airworthiness Directive 2009-0235, dated October 29, 2009; and Airbus Service Bulletin A320-24-1120, Revision 03, dated July 10, 2009; for related information.

Material Incorporated by Reference

(k) You must use Airbus Service Bulletin A320-24-1120, Revision 03, dated July 10, 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, Airworthiness Office–EAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; e-mail: account.airworth-eas@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.

(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 April 27, 2010.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-10-11 Empresa Brasileira de Aeronautica S.A. (EMBRAER): Amendment 39-16290. Docket No. FAA-2009-0714; Directorate Identifier 2009-NM-041-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective June 21, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model EMB-135BJ, -135ER, -135KE, -135KL, -135LR, -145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP airplanes; certificated in any category; equipped with landing gear electronic unit (LGEU) having part number (P/N) 355-022-002.

Subject

(d) Air Transport Association (ATA) of America Code 32: Landing gear.

Reason

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

It was reported that after commanding the landing gear lever to down the three green landing gear positioning indication was displayed followed by the LG/LEVER DISAGREE EICAS [engine indicating and crew alerting system] message. The crew decided to continue the approach and landing procedure. As soon as the crew identified that the landing gear was not extended properly, a go-around procedure was successfully performed. During maneuver, the airplane settled momentarily onto the flaps and belly. * * * * * The unsafe condition is the landing gear remaining in the up and locked position during approach and landing. This condition could be accompanied by an invalid EICAS landing gear position indication, which could result in landing with gear in the up position and eliminate controllability of the airplane on the ground. This may consequently result in structural damage to the airplane. Required actions include replacing the LGEU with a new one having a new part number.

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) Within 12 months after the effective date of this AD, replace any LGEU having P/N 355-022-002 having a serial number (S/N) 1000 through 1999 inclusive with a new LGEU having P/N 355-022-003, in accordance with the Accomplishment Instructions of EMBRAER Service Bulletin 145-32-0120, Revision 02, dated February 17, 2009; or 145LEG-32-0032, Revision 02, dated February 17, 2009; as applicable.

(2) As of 12 months after the effective date of this AD, no person may install on any airplane an LGEU having a P/N 355-022-002 having a S/N 1000 through 1999 inclusive.

(3) Within 30 months after the effective date of this AD, replace any LGEU having P/N 355-022-002 having a serial number not identified in paragraph (g)(1) of this AD, with a new LGEU having P/N 355-022-003, in accordance with the Accomplishment Instructions of EMBRAER Service Bulletin 145-32-0120, Revision 02, dated February 17, 2009; or 145LEG-32-0032, Revision 02, dated February 17, 2009; as applicable.

(4) As of 30 months after the effective date of this AD, no person may install on any airplane an LGEU having a P/N 355-022-002 and a serial number not identified in paragraph (g)(1) of this AD.

(5) Replacing the LGEU is also acceptable for compliance with the corresponding requirement of paragraph (g)(1) or (g)(3) of this AD if done before the effective date of this AD in accordance with one of the service bulletins identified in Table 1 of this AD.

Table 1 – Credit service bulletins

EMBRAER Service Bulletin–	Revision –	Dated –
145LEG-32-0032	Original	October 8, 2008
145LEG-32-0032	01	November 4, 2008
145-32-0120	Original	September 15, 2008
145-32-0120	01	November 4, 2008

FAA AD Differences

Note 1: This AD differs from the MCAI and/or service information as follows:

Although EMBRAER Service Bulletins 145LEG-32-0032, Revision 02, dated February 17, 2009; and 145-32-0120, Revision 02, dated February 17, 2009; specify that no person may install on any airplane an LGEU having P/N 355-022-002 as of 30 months after the effective date of this AD, we have determined that no LGEU having P/N 355-022-002 with a S/N 1000 through 1999 inclusive may be installed as of 12 months after the effective date of this AD. Allowing installation of those serial numbers beyond 12 months would not address the identified unsafe condition and ensure an adequate level of safety. This difference has been coordinated with the Agência Nacional de Aviação Civil (ANAC).

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: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1175; 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 Brazilian Airworthiness Directive 2009-01-01, effective January 8, 2009, as corrected by Brazilian Airworthiness Directive Errata, effective January 20, 2009; EMBRAER Service Bulletin 145-32-0120, Revision 02, dated February 17, 2009; and EMBRAER Service Bulletin 145LEG-32-0032, Revision 02, dated February 17, 2009; for related information.

Material Incorporated by Reference

(j) You must use EMBRAER Service Bulletin 145-32-0120, Revision 02, dated February 17, 2009; and EMBRAER Service Bulletin 145LEG-32-0032, Revision 02, dated February 17, 2009; 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.

(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 April 29, 2010.
Jeffrey E. Duven,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-10-13 BAE Systems (Operations) Limited: Amendment 39-16292. Docket No. FAA-2009-1254; Directorate Identifier 2009-NM-040-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective June 21, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to BAE Systems (Operations) Limited Model BAe 146-100A, -200A, and -300A series airplanes; and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A airplanes; certificated in any category, all serial numbers.

Subject

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

Reason

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

> During the removal of the wing removable leading edge on a BAe 146 aircraft for a repair (not related to the subject addressed by this AD), corrosion was found on the wing fixed leading edge structure. The investigation determined that the existing scheduled environmental and fatigue inspections would not have detected the corrosion or fatigue damage.
>
> Corrosion or fatigue damage in this area, if not detected and corrected, could lead to degradation of the structural integrity of the wing.
>
> For the reason described above, this AD requires repetitive inspections of the wing fixed leading edge and front spar structure for corrosion and/or fatigue damage [e.g., cracking] and repair, depending on findings.

There are two alternative inspection methods: Method 1 is a combination of a detailed visual inspection and a visual inspection; Method 2 is a detailed visual inspection.

Actions and Compliance

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

(1) At the applicable time identified in paragraph (f)(1)(i), (f)(1)(ii), or (f)(1)(iii) of this AD: Perform a detailed visual inspection and visual inspection (Method 1) or a detailed visual inspection (Method 2) for cracking and corrosion of the wing fixed leading edge and front spar structure, in accordance with paragraph 2.C. or 2.D., as applicable, of the Accomplishment Instructions of BAE Systems (Operations) Limited Inspection Service Bulletin ISB.57-072, Revision 1, dated September 25, 2008.

(i) For airplanes with less than 9 years since date of issuance of the original airworthiness certificate or the date of issuance of the original export certificate of airworthiness as of the effective date of this AD: Within 18 months after the effective date of this AD.

(ii) For airplanes with 9 years or more, but less than 15 years, since date of issuance of the original airworthiness certificate or the date of issuance of the original export certificate of airworthiness as of the effective date of this AD: Within 18 months after the effective date of this AD or within 16 years since date of issuance of the original airworthiness certificate or the date of issuance of the original export certificate of airworthiness, whichever occurs first.

(iii) For airplanes with 15 years or more since date of issuance of the original airworthiness certificate or the date of issuance of the original export certificate of airworthiness as of the effective date of this AD: Within 6 months after the effective date of this AD.

Note 1: Where BAE Systems (Operations) Limited Inspection Service Bulletin ISB.57-072, Revision 1, dated September 25, 2008, refers to a "visual inspection," this term describes an inspection using visual inspection equipment as defined in Appendix 3 of that service bulletin. In other BAE Systems instructions for continued airworthiness, including the Maintenance Planning Document (MPD) and the Corrosion Prevention and Control Programme (CPCP), such an inspection is referred to as a "Special Detailed Inspection" (SDI).

Note 2: At the discretion of the airplane owner/operator, corrosion protection may be embodied on those areas subject to a detailed visual inspection, in accordance with paragraph 2.E. or paragraph 2.F. of the Accomplishment Instructions of BAE Systems (Operations) Limited Inspection Service Bulletin ISB.57-072, Revision 1, dated September 25, 2008. Embodiment of enhanced corrosion protection in accordance with paragraph 2.E. of the Accomplishment Instructions of BAE Systems (Operations) Limited Inspection Service Bulletin ISB.57-072, Revision 1, dated September 25, 2008, allows the interval of the repetitive inspection (as required by paragraph (f)(2) of this AD) to be extended in the area(s) of application in accordance with paragraph (f)(2)(i) or (f)(2)(ii) of this AD, as applicable.

(2) After doing the initial inspection required by paragraph (f)(1) of this AD, at the applicable intervals specified in paragraph (f)(2)(i) or (f)(2)(ii) of this AD, accomplish the repetitive inspections of the wing fixed leading edge and front spar structure for cracking and corrosion in the "area of inspection" specified in Table 1 of paragraph 1.D., "Compliance," of BAE Systems (Operations) Limited Inspection Service Bulletin ISB.57-072, Revision 1, dated September 25, 2008. Do the inspections in accordance with paragraph 2.C. (Method 1) or paragraph 2.D. (Method 2) of the Accomplishment Instructions of BAE Systems (Operations) Limited Inspection Service Bulletin ISB.57-072, Revision 1, dated September 25, 2008. Where previously applied, enhanced corrosion protection may then be re-applied, as an option, in accordance with paragraph 2.E. of the Accomplishment Instructions of BAE Systems (Operations) Limited Inspection Service Bulletin ISB.57-072, Revision 1, dated September 25, 2008. Perform the repetitive inspections at the times specified in paragraph (f)(2)(i) or (f)(2)(ii) of this AD, as applicable.

(i) For airplanes having enhanced corrosion protection that was applied during the previous inspection: Inspect at intervals not to exceed 144 months.

(ii) For airplanes not having enhanced corrosion protection that was applied during the previous inspection: Inspect at intervals not to exceed 72 months.

(3) After doing the initial inspection required by paragraph (f)(1) of this AD, at intervals not to exceed 36,000 flight cycles, accomplish fatigue inspections in accordance with paragraph 2.C. (Method 1) or paragraph 2.D. (Method 2) of the Accomplishment Instructions of BAE Systems (Operations) Limited Inspection Service Bulletin ISB.57-072, Revision 1, dated September 25, 2008.

(4) If any cracking or corrosion is found during any inspection required by this AD, before further flight, repair in accordance with the Accomplishment Instructions of BAE Systems (Operations) Limited Inspection Service Bulletin ISB.57-072, Revision 1, dated September 25, 2008.

(5) No repair terminates the inspection requirements of this AD.

(6) Actions done before the effective date of this AD in accordance with BAE Systems (Operations) Limited Inspection Service Bulletin ISB.57-072, dated February 22, 2008, are considered acceptable for compliance with the corresponding actions specified in this AD.

(7) Submit a report of the findings (both positive and negative) of the inspection required by paragraph (f)(1) of this AD to Customer Liaison, Customer Support (Building 37), BAE Systems (Operations) Limited, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland; fax +44 (0) 1292 675432; e-mail raengliaison@baesystems.com, at the applicable time specified in paragraphs (f)(7)(i) and (f)(7)(ii) of this AD. The report must include the inspection results, a description of any discrepancies found, the airplane serial number, and the number of landings and flight hours on the airplane.

(i) If the inspection was done on or after the effective date of this AD: Submit the report within 30 days after the inspection.

(ii) If the inspection was done before the effective date of this AD: Submit the report within 30 days after the effective date of this AD.

Note 3: The inspections required by this AD prevail over the Maintenance Review Board Report (MRBR), MPD, CPCP, and Supplemental Structural Inspection Document (SSID) inspections defined in paragraph 1.C.(3) of BAE Systems (Operations) Limited Inspection Service Bulletin ISB.57-072, Revision 1, dated September 25, 2008.

FAA AD Differences

Note 4: This AD differs from the MCAI and/or service information as follows: Where the EASA AD refers to "since entry into service," this AD specifies the date of issuance of the original airworthiness certificate or the date of issuance of the original export certificate of airworthiness.

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: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1175; 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 2009-0014, dated January 21, 2009; and BAE Systems (Operations) Limited Inspection Service Bulletin ISB.57-072, Revision 1, dated September 25, 2008; for related information.

Material Incorporated by Reference

(i) You must use BAE Systems (Operations) Limited Inspection Service Bulletin ISB.57-072, Revision 1, dated September 25, 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 BAE Systems Regional Aircraft, 13850 McLearen Road, Herndon, Virginia 20171; telephone 703-736-1080; e-mail raebusiness@ baesystems.com; Internet http://www.baesystems.com/Businesses/RegionalAircraft/index.htm.

(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.

(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 April 30, 2010.
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

2010-10-18 Bombardier, Inc.: Amendment 39-16297. Docket No. FAA-2010-0475; Directorate Identifier 2010-NM-083-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective June 1, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Bombardier, Inc. Model BD-100-1A10 (Challenger 300) airplanes, having serial numbers (S/Ns) 20001 through 20274 inclusive, certificated in any category.

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 (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.

Subject

(d) Air Transport Association (ATA) of America Code 21 and 25: Air conditioning and Equipment/Furnishings, respectively.

Reason

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

> Investigation of a recent high altitude loss of cabin pressurization on a BD-100-1A10 aircraft determined that it was caused by a partial blockage of a safety valve cabin pressure-sensing port, in conjunction with a dormant failure/leakage of the safety valve manometric capsule. The blockage, caused by accumulation of lint/dust on the grid of the port plug, did not allow sufficient airflow through the cabin pressure-sensing port to compensate for the rate of leakage from the manometric capsule,

> resulting in the opening of the safety valve. It was also determined that failure of the manometric capsule alone would not result in the opening of the safety valve.
>
> This directive mandates a revision of the maintenance schedule, the [repetitive] cleaning of the safety valves, the removal of material from the area surrounding the safety valves and the modification of the safety valves with a gridless cabin pressure-sensing port plug.

The unsafe condition is possible loss of cabin pressure caused by the opening of the safety valve. The required actions also include a detailed visual inspection of the safety valves and surrounding areas for discrepant material (e.g., foreign material surrounding the safety valves, room temperature vulcanizing (RTV) sealant on safety valves, RTV excess on the bulkhead, tape near the safety valve opening, and, on certain airplanes, insulation near the safety valve opening, and foam in the area surrounding the safety valves), and for contamination found in the safety valve pressure ports. If contamination is found on the safety valve pressure ports, a detailed visual inspection for the presence of RTV on the outside and inside diameter of the pressure sensing port conduit is required. If discrepant materials are found, removing discrepant material, cleaning the surfaces of the valves, and securing insulation are required, as applicable. If the presence of RTV is detected, cleaning the surfaces of the valves and installing a new safety valve are required, as applicable.

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) For all airplanes: Within 30 days after the effective date of this AD, revise the Airworthiness Limitations section of the Instructions for Continued Airworthiness by incorporating Tasks 21-31-09-101 and 21-31-09-102 in the Bombardier Temporary Revision (TR) 5-2-53, dated October 1, 2009, to Section 5-10-40, "Certification Maintenance Requirements," in Part 2 of Chapter 5 of Bombardier Challenger 300 BD-100 Time Limits/Maintenance Checks.

(1) For the new tasks identified in Bombardier TR 5-2-53, dated October 1, 2009: For airplanes identified in the "Phase-in" section of Bombardier TR 5-2-53, dated October 1, 2009, the initial compliance with the new tasks must be carried out in accordance with the phase-in schedule detailed in Bombardier TR 5-2-53, dated October 1, 2009, except where that TR specifies a compliance time from the date of the TR, this AD requires compliance within the specified time after the effective date of this AD. Thereafter, except as provided by paragraph (l)(1) of this AD, no alternative to the task intervals may be used.

(2) When information in Bombardier TR 5-2-53, dated October 1, 2009, has been included in the general revisions of the applicable Airworthiness Limitations section, that TR may be removed from that Airworthiness Limitations section of the Instructions for Continued Airworthiness.

(h) For airplanes having S/Ns 20003 through 20173 inclusive, 20176, and 20177: Within 50 flight hours after the effective date of this AD, do a detailed visual inspection of the safety valves and surrounding areas for discrepant material (e.g., foreign material surrounding the safety valves, room temperature vulcanizing (RTV) sealant on safety valves, RTV excess on the bulkhead, tape near the safety valve opening, and, on certain airplanes, insulation near the safety valve opening, and foam in the area surrounding the safety valves) and a detailed visual inspection for contamination (e.g., RTV,

dust, or lint) in the safety valve pressure ports, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 100-25-14, dated June 30, 2008 (for airplanes having S/Ns 20124, 20125, 20128, 20134, 20139, 20143, 20146, 20148 to 20173 inclusive, 20176, and 20177); or Bombardier Service Bulletin 100-25-21, dated June 30, 2008 (for airplanes having S/Ns 20003 through 20123 inclusive, 20126, 20127, 20129 to 20133 inclusive, 20135 to 20138 inclusive, 20140 to 20142 inclusive, 20144, 20145, and 20147).

(1) If any discrepant material is found during the detailed visual inspection, before further flight, remove the discrepant material, clean the surfaces of the valves, and secure the insulation, as applicable, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 100-25-14, dated June 30, 2008 (for airplanes having S/Ns 20124, 20125, 20128, 20134, 20139, 20143, 20146, 20148 to 20173 inclusive, 20176, and 20177); or Bombardier Service Bulletin 100-25-21, dated June 30, 2008 (for airplanes having S/Ns 20003 through 20123 inclusive, 20126, 20127, 20129 to 20133 inclusive, 20135 to 20138 inclusive, 20140 to 20142 inclusive, 20144, 20145, and 20147).

(2) If contamination (e.g., RTV, dust, or lint) is found on the safety valve pressure sensing ports, before further flight, do a detailed visual inspection of the outside and inside diameters of the pressure sensing port conduit for the presence of RTV; and do the actions specified in paragraph (h)(2)(i) and (h)(2)(ii) of this AD, as applicable; in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 100-25-14, dated June 30, 2008 (for airplanes having S/Ns 20124, 20125, 20128, 20134, 20139, 20143, 20146, 20148 to 20173 inclusive, 20176, and 20177); or Bombardier Service Bulletin 100-25-21, dated June 30, 2008 (for airplanes having S/Ns 20003 through 20123 inclusive, 20126, 20127, 20129 to 20133 inclusive, 20135 to 20138 inclusive, 20140 to 20142 inclusive, 20144, 20145, and 20147).

(i) If no RTV is found, clean the plug of the sensing port.

(ii) If any RTV is found, install a new safety valve.

(i) For airplanes having S/Ns 20174, 20175, 20178 through 20189 inclusive, 20191 through 20228 inclusive, 20230 through 20232 inclusive, 20235, 20237, 20238, 20241, 20244, 20247, 20249 through 20251 inclusive, 20254, 20256 and 20259: Within 50 flight hours after the effective date of this AD, clean the cabin pressure-sensing port plug in both safety valves, in accordance with Paragraph 2.B., "Part A–Modification–Cleaning," of the Accomplishment Instructions of Bombardier Service Bulletin A100-21-08, dated June 18, 2009.

(j) For airplanes having S/Ns 20003 through 20189 inclusive, 20191 through 20228 inclusive, 20230 through 20232 inclusive, 20235, 20237, 20238, 20241, 20244, 20247, 20249 through 20251 inclusive, 20254, 20256, and 20259: Within 50 flight hours after the effective date of this AD, clean the cabin pressure-sensing port plug in both safety valves, in accordance with Paragraph 2.B., "Part A– Modification–Cleaning," of the Accomplishment Instructions of Bombardier Service Bulletin A100-21-08, dated June 18, 2009. Repeat the cleaning thereafter at intervals not to exceed 50 flight hours until the actions specified by paragraph (k) of this AD are completed.

(k) For airplanes, having S/Ns 20003 through 20189 inclusive, 20191 through 20228 inclusive, 20230 through 20232 inclusive, 20235, 20237, 20238, 20241, 20244, 20247, 20249 through 20251 inclusive, 20254, 20256, and 20259: Replacing the cabin pressure-sensing port plug having part number (P/N) 2844-060 in both safety valves with a new gridless plug having P/N 2844-19 and re-identifying the safety valves, in accordance with Paragraph 2.C., "Part B–Modification–Replacement," of the Accomplishment Instructions of Bombardier Service Bulletin A100-21-08, dated June 18, 2009, terminates the repetitive cleanings required by paragraph (j) of this AD.

FAA AD Differences

Note 2: This AD differs from the MCAI and/or service information as follows: This AD does not require the replacement of the safety valve cabin pressure-sensing port plugs and the re-identification of the safety valves required in Part V of MCAI Canadian Airworthiness Directive CF-2010-06, dated February 24, 2010. The planned compliance times for these actions would not allow enough time to provide notice and opportunity for prior public comment on the merits of those actions. Therefore, we are considering further rulemaking to address these issues.

Other FAA AD Provisions

(l) 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, FAA, New York ACO, 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

(m) Refer to MCAI Canadian Airworthiness Directive CF-2010-06, dated February 24, 2010; and the service information specified in Table 1 of this AD; as applicable; for related information.

Table 1 – Service information

Document	Date
Bombardier Service Bulletin A100-21-08	June 18, 2009
Bombardier Service Bulletin 100-25-14	June 30, 2008
Bombardier Service Bulletin 100-25-21	June 30, 2008
Bombardier Temporary Revision 5-2-53, dated October 1, 2009, to Section 5-10-40, “Certification Maintenance Requirements,” in Part 2 of Chapter 5 of Bombardier Challenger 300 BD-100 Time Limits/Maintenance Checks.	October 1, 2009

Material Incorporated by Reference

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

Table 2 – Material incorporated by reference

Document	Date
Bombardier Service Bulletin A100-21-08	June 18, 2009
Bombardier Service Bulletin 100-25-14	June 30, 2008
Bombardier Service Bulletin 100-25-21	June 30, 2008
Bombardier Temporary Revision 5-2-53, dated October 1, 2009, to Section 5-10-40, "Certification Maintenance Requirements," in Part 2 of Chapter 5 of Bombardier Challenger 300 BD-100 Time Limits/Maintenance Checks.	October 1, 2009

(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 Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; e-mail thd.crj@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.

(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 May 3, 2010.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-10-19 Airbus: Amendment 39-16298. Docket No. FAA-2010-0476, Directorate Identifier 2010-NM-036-AD.

Effective Date

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

Affected ADs

(b) This AD supersedes AD 2010-02-03, Amendment 39-16174.

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) Do the following actions.

(1) At the applicable time specified 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 limit for replacement 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 limit for replacement.

(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 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 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 previously approved the incorporation by reference of Airbus Mandatory Service Bulletin A340-71-4006, Revision 01, dated May 14, 2009, on January 29, 2010 (75 FR 2057, January 14, 2010).

(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.

(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 May 3, 2010.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-10-20 McDonnell Douglas Corporation: Amendment 39-16299. Docket No. FAA-2009-0685; Directorate Identifier 2009-NM-113-AD.

Effective Date

(a) This airworthiness directive (AD) is effective June 21, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to McDonnell Douglas Corporation Model DC-9-31, DC-9-32, DC-9-32 (VC-9C), DC-9-32F, DC-9-33F, DC-9-34, DC-9-34F, and DC-9-32F (C-9A, C-9B), DC-9-41, and DC-9-51 airplanes, certificated in any category; as identified in Boeing Service Bulletin DC9-28-227, dated April 23, 2009.

Subject

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

Unsafe Condition

(e) This AD results from fuel system reviews conducted by the manufacturer. The Federal Aviation Administration is issuing this AD to detect and correct the potential for an arc/spark condition to occur within the fuel boost or transfer pump conduit assembly connectors and propagate into the forward and aft auxiliary fuel tanks, which could result in a fire or explosion.

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.

Inspection

(g) Within 60 months after the effective date of this AD, inspect to determine the part numbers of the forward and aft auxiliary fuel tank boost and transfer pumps conduit assembly and conduit assembly electrical connector, as applicable, and do applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Service Bulletin DC9-28-227, dated April 23, 2009. Do

the applicable corrective actions before further flight. If the auxiliary fuel tank(s) has been removed, thereby removing the fuel boost or transfer fuel pump conduit assembly connectors, the corrective action specified in the Accomplishment Instructions of Boeing Service Bulletin DC9-28-227, dated April 23, 2009, is not required. If the removed auxiliary fuel tank(s) are re-installed, the requirements of paragraph (g) of this AD must be done before further flight.

Alternative Methods of Compliance (AMOCs)

(h)(1) The Manager, Los Angeles 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: William Bond, Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Los Angeles ACO, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5253; fax (562) 627-5210.

(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

(i) You must use Boeing Service Bulletin DC9-28-227, dated April 23, 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, 3855 Lakewood Boulevard, MC D800-0019, Long Beach, California 90846-0001; telephone 206-544-5000, extension 2; fax 206-766-5683; e-mail dse.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.

(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 May 3, 2010.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-10-21 Bombardier, Inc.: Amendment 39-16300. Docket No. FAA-2009-0792; Directorate Identifier 2009-NM-057-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective June 21, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Bombardier, Inc. Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, certificated in any category, having serial numbers 10003 through 10267 inclusive; and Bombardier Model CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900) airplanes, certificated in any category, having serial numbers 15001 through 15199 inclusive, 15202, and 15204.

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) 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.

Subject

(d) Air Transport Association (ATA) of America Code 29: Hydraulic power.

Reason

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

> Bombardier Aerospace has completed a system safety review of the CL-600-2C10/CL600-2D15/CL-600-2D24 aircraft fuel system against the new fuel tank safety standards, introduced in Chapter 525 of the Airworthiness Manual through Notice of Proposed Amendment (NPA) 2002-043. The identified non-compliances were

assessed using Transport Canada Policy Letter No. 525-001 to determine if mandatory corrective action was required.

The assessment showed that certain hydraulic system failure scenarios could lead to a rapid overheat in the hydraulic lines without giving flight crew sufficient time to react before the No. 1 and No. 2 hydraulic system tubing inside the fuel tank reaches the fuel auto ignition temperature. This could result in a fuel tank explosion.

To correct the unsafe condition, this [Canadian airworthiness] directive mandates the installation of thermal fuses in the No. 1 and No. 2 hydraulic systems and the introduction of Fuel System Limitations (FSL) and Critical Design Configuration Control Limitations (CDCCL) associated with this design change.

Actions and Compliance

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

(1) Within 6,000 flight hours after the effective date of this AD, modify the aircraft hydraulic system by installing thermal fuses according to the Accomplishment Instructions of Bombardier Service Bulletin 670BA-29-005, Revision A, dated January 29, 2009.

Note 2: Guidance for accomplishing the modification required by paragraph (f)(1) of this AD can be found in Bombardier Service Non-Incorporated Engineering Order (SNIEO) KMM670-75007, Identifier S01, dated September 3, 2009, and SNIEO KMM670-75007, Identifier S02, dated September 11, 2009.

(2) Before or concurrently with the actions required by paragraph (f)(1) of this AD, revise the Airworthiness Limitations Section (ALS) of the Instructions for Continued Airworthiness to incorporate the tasks identified in Table 1 of this AD as specified in Bombardier Temporary Revision (TR) 2-269, dated December 18, 2008, to Section 3, "Fuel Systems Limitations," of Part 2 of the Bombardier CL-600-2C10, CL-600-2D15, and CL-600-2D24 Maintenance Requirements Manual. The initial compliance time for the task is within 10,000 flight hours after doing the action required by paragraph (f)(1) of this AD, or within 60 days after the effective date of this AD, whichever occurs later, and the limitation task must be accomplished thereafter at the "limiting interval" specified in Bombardier TR 2-269, dated December 18, 2008, except as provided by paragraphs (f)(4) and (g)(1) of this AD.

Table 1 - Fuel System Limitation Task

Task Number	Task Description
29-30-00-603	Hydraulic System No. 1 and No. 2 Thermal Fuse: Discard the system No. 1 and No. 2 thermal fuse (Post Modsum 670T112042 or SB 670BA-29-005)

(3) Before or concurrently with the actions required by paragraph (f)(1) of this AD, revise the ALS of the Instructions for Continued Airworthiness to incorporate the CDCCL data specified in Bombardier TR 2-268, dated December 18, 2008, to Section 3, "Fuel System Limitations," of Part 2 of the Bombardier CL-600-2C10, CL-600-2D15 and CL-600-2D24 Maintenance Requirements Manual.

Note 3: The actions required by paragraphs (f)(2) and (f)(3) of this AD may be done by inserting a copy of the TR into the maintenance requirements manual. When the TR has been included in the general revision of the maintenance program, the general revision may be inserted into the maintenance requirements manual, provided the relevant information in the general revision is identical to that in the TR, and the TR may be removed.

(4) After accomplishing the actions specified in paragraphs (f)(2) and (f)(3) of this AD, no alternative limitation tasks, limitation task intervals, or CDCCLs may be used unless the limitation task, limitation task interval, or CDCCL is approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (g)(1) of this AD.

(5) Actions accomplished before the effective date of this AD in accordance with Bombardier Service Bulletin 670BA-29-005, dated December 18, 2008, are considered acceptable for compliance with the corresponding action specified in paragraph (f)(1) of this AD.

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 ALS, as required by paragraphs (f)(2) and (f)(3) of this AD, do not need to be reworked in accordance with the CDCCLs. However, once the ALS has been revised, future maintenance actions on these components must be done in accordance with the CDCCLs.

FAA AD Differences

Note 5: 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, New York Aircraft Certification Office (ACO), 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, FAA, New York ACO, 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 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 Canadian Airworthiness Directive CF-2009-09, dated March 9, 2009; Bombardier Service Bulletin 670BA-29-005, Revision A, dated January 29, 2009; and Bombardier TR 2-268 and Bombardier TR 2-269, both dated December 18, 2008, both to Section 3, "Fuel System Limitations," of Part 2 of the Bombardier CL-600-2C10, CL-600-2D15, and CL-600-2D24 Maintenance Requirements Manual; for related information.

Material Incorporated by Reference

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

Table 2 – Material incorporated by reference

Document	Revision	Date
Bombardier Service Bulletin 670BA-29-005	A	January 29, 2009
Bombardier Temporary Revision 2-268 to Section 3, “Fuel System Limitations,” of Part 2 of the Bombardier CL-600-2C10, CL-600-2D15, and CL-600-2D24 Maintenance Requirements Manual	Original	December 18, 2008
Bombardier Temporary Revision 2-269 to Section 3, “Fuel System Limitations,” of Part 2 of the Bombardier CL-600-2C10, CL-600-2D15, and CL-600-2D24 Maintenance Requirements Manual	Original	December 18, 2008

(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 Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; e-mail thd.crj@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.

(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 May 3, 2010.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-10-22 BAE SYSTEMS (Operations) Limited: Amendment 39-16301. Docket No. FAA-2008-0909; Directorate Identifier 2007-NM-363-AD.

Effective Date

(a) This AD becomes effective June 25, 2010.

Affected ADs

(b) This AD supersedes AD 2005-23-12, Amendment 39-14370.

Applicability

(c) This AD applies to all BAE SYSTEMS (Operations) Limited Model BAe 146-100A, -200A, and -300A series airplanes; and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A airplanes; certificated in any category.

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 (AMOC) according to paragraph (k) 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.

Subject

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

Unsafe Condition

(e) This AD results from issuance of a later revision to the airworthiness limitations of the BAE SYSTEMS (Operations) Limited BAe146 Series/Avro146-RJ Series Aircraft Maintenance Manual (AMM), which specifies new inspections and compliance times for inspection and replacement actions. We are issuing this AD to ensure that fatigue cracking of certain structural elements is detected and corrected, and to prevent ignition sources in the fuel tanks; fatigue cracking of certain structural elements could adversely affect the structural integrity of these airplanes.

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 CERTAIN REQUIREMENTS OF AD 2005-23-12:

Airworthiness Limitations Revision

(g) Within 30 days after December 27, 2005 (the effective date of AD 2005-23-12), revise the Airworthiness Limitations Section (ALS) of the Instructions for Continued Airworthiness to incorporate new and more restrictive life limits for certain items and new and more restrictive inspections to detect fatigue cracking in certain structures, in accordance with a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the Civil Aviation Authority (or its delegated agent).

NEW REQUIREMENTS OF THIS AD:

New Airworthiness Limitations Revisions

(h) Within 90 days after the effective date of this AD, revise Chapter 5 of the BAE SYSTEMS (Operations) Limited BAe146 Series/Avro146-RJ Series AMM to incorporate new and more restrictive life limits for certain items and new and more restrictive inspections to detect fatigue cracking in certain structures, and to add fuel system critical design configuration control limitations (CDCCLs) to prevent ignition sources in the fuel tanks, in accordance with a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA) (or its delegated agent). Incorporating the new and more restrictive life limits and inspections into the ALS terminates the requirements of paragraph (g) of this AD, and after incorporation has been done, the limitations required by paragraph (g) of this AD may be removed from the ALS.

Note 2: Guidance on revising Chapter 5 of the BAE SYSTEMS (Operations) Limited BAe146 Series/Avro146-RJ Series AMM, Revision 97, dated July 15, 2009, can be found in the applicable sub-chapters listed in Table 1 of this AD.

Table 1 - Applicable AMM sub-chapters

AMM Sub-chapter	Subject
05-10-01	Airframe Airworthiness Limitations before Life Extension Programme
05-10-05 [1]	Airframe Airworthiness Limitations, Life Extension Programme Landings Life Extended
05-10-10 [2]	Airframe Airworthiness Limitations, Life Extension Programme Calendar Life Extended
05-10-15	Aircraft Equipment Airworthiness Limitations
05-10-17	Power Plant Airworthiness Limitations
05-15-00	Critical Design Configuration Control Limitations (CDCCL) - Fuel System Description and Operation
05-20-00 [3]	Scheduled Maintenance
05-20-01	Airframe Scheduled Maintenance – Before Life Extension Programme
05-20-05 [1]	Airframe Scheduled Maintenance – Life Extension Programme Landings Life Extended
05-20-10 [2]	Airframe Scheduled Maintenance – Life Extension Programme Calendar Life Extended
05-20-15	Aircraft Equipment Scheduled Maintenance

[1] Applicable only to airplanes post-modification HCM20011A or HCM20012A or HCM20013A.
[2] Applicable only to airplanes post-modification HCM20010A.
[3] Paragraphs 5 and 6 only, on the Corrosion Prevention and Control Program (CPCP) and the Supplemental Structural Inspection Document (SSID).

Note 3: Sub-chapter 05-15-00 of the BAE SYSTEMS (Operations) Limited BAe146 Series/Avro146-RJ Series AMM, is the CDCCL.

Note 4: Within Sub-chapter 05-20-00 of the BAE SYSTEMS (Operations) Limited BAe146 Series/Avro146-RJ Series AMM, the relevant issues of the support documents are as follows: BAE SYSTEMS (Operations) Limited BAe 146 Series/Avro 146-RJ Corrosion Prevention and Control Program Document CPCP-146-01, Revision 3, dated July 15, 2008, including BAE SYSTEMS (Operations) Limited Temporary Revision (TR) 2.1, dated December 2008; and BAE SYSTEMS (Operations) Limited BAe146 Series Supplemental Structural Inspection Document SSID-146-01, Revision 1, dated June 15, 2009.

Note 5: Within Sub-chapter 05-20-01 of the BAE SYSTEMS (Operations) Limited BAe146 Series/Avro146-RJ Series AMM, the relevant issue of BAE SYSTEMS (Operations) Limited BAe 146/Avro 146-RJ Maintenance Review Board Report Document MRB 146-01, Issue 2, is Revision 15, dated March 2009 (mis-identified in EASA AD 2009-0215, dated October 7, 2009, as being dated May 2009).

Note 6: 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 ALS, as required by paragraph (g) of this AD; or before revision of Chapter 5 of the AMM, as required by paragraph (h) of this AD; do not need to be reworked in accordance with the CDCCLs. However, once the ALS or AMM has been revised, future maintenance actions on these components must be done in accordance with the CDCCLs.

(i) Except as specified in paragraph (k) of this AD: After the actions specified in paragraph (g) or (h) of this AD have been accomplished, no alternative inspections or inspection intervals may be approved for the structural elements specified in the documents listed in paragraph (g) or (h) of this AD.

(j) Modifying the main fittings of the main landing gear in accordance with Messier-Dowty Service Bulletin 146-32-171, dated August 11, 2009, extends the safe limit of the main landing gear main fitting from 32,000 landings to 50,000 landings on the main fitting.

Alternative Methods of Compliance (AMOCs)

(k) 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: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98057-4056; telephone (425) 227-1175; 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.

Related Information

(l) EASA Airworthiness Directive 2009-0215, dated October 7, 2009; and Messier-Dowty Service Bulletin 146-32-171, dated August 11, 2009; also address the subject of this AD.

Material Incorporated by Reference

(m) If you do the optional modification specified in this AD, you must use Messier-Dowty Service Bulletin 146-32-171, dated August 11, 2009, to do those actions, 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 Messier-Dowty service information identified in this AD, contact Messier-Dowty Limited, Cheltenham Road, Gloucester GL2 9QH, England; telephone +44(0)1452 712424; fax +44(0)1452 713821; Internet https://techpubs.services.messier-dowty.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.

(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 May 3, 2010.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-10-23 Dowty Propellers (Formerly Dowty Aerospace; Dowty Rotol Limited; and Dowty Rotol): Amendment 39-16302. Docket No. FAA-2008-0750; Directorate Identifier 2008-NE-21-AD.

Effective Date

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

Affected ADs

(b) This AD supersedes AD 70-16-02, Amendment 39-1503.

Applicability

(c) This AD applies to Dowty Propellers R175/4-30-4/13; R175/4-30-4/13e; R184/4-30-4/50; R193/4-30-4/50; R193/4-30-4/61; R193/4-30-4/64; R193/4-30-4/65; R193/4-30-4/66; R.209/4-40-4.5/2; R212/4-30-4/22; R.245/4-40-4.5/13; R257/4-30-4/60; and R.259/4-40-4.5/17 model propellers. These propellers are installed on, but not limited to, Fairchild F-27, Fairchild-Hiller FH-227, Grumman G-159, Nihon YS-11, and BAe HS 748 Series 2 airplanes, Convair 240 airplanes modified per supplemental type certificate (STC) SA1054WE, and Convair 340 and 440 airplanes modified per STC SA1096SW.

Unsafe Condition

(d) This AD results from the FAA determining that AD 70-16-02 does not apply to all propellers, since current Dowty Rotol propellers are differently designed. We are issuing this AD supersedure to specify the affected propeller models, and to prevent seizure or embrittlement and cracking of the blade pitch change operating links and eyebolt fork assemblies, which could result in reduced controllability of the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed before further flight after the effective date of this AD, unless the actions have already been done.

(f) Inspect the blade pitch change operating link and eyebolt fork assembly for:

(1) Seizure (the link and eyebolt are seized if the torque required to move the link is 300 inch pounds or more); and

(2) Cadmium plating on the mating surfaces between the operating link and eyebolt fork and the holes through the eyebolt fork and the operating link.

(g) If the link and eyebolt fork are not seized and have not been cadmium plated, they may remain in service.

(h) If the link and eyebolt fork are not seized but cadmium plating is found in the prohibited areas, remove the plating by means of wet or dry silicon carbide paper, fine or medium grade, and conduct a magnetic crack test. If no cracks are found, the assembly may remain in service until the next propeller overhaul for air carrier airplanes and airplanes under a continuous maintenance program or for 3,300 hours time-in-service after the effective date of this AD for all other airplanes. At the next propeller overhaul for air carrier airplanes and airplanes under a continuous maintenance program, or within 3,300 hours time-in-service after the effective date of this AD for all other airplanes, heat treat the links and eyebolt forks found to have been cadmium plated, to remove embrittlement. Use Dowty Rotol Service Bulletin No. 61-754, dated June 12, 1970 to perform the heat treatment.

(i) If the link and eyebolt fork are seized, remove the link and eyebolt fork from service and replace them with an assembly having a part number approved for that model propeller that has not been cadmium plated in the prohibited areas.

(j) If the link or eyebolt fork are found to be cracked during the inspection in paragraph (h) of this AD, remove the cracked part from service and replace it with a part having a part number approved for that model propeller that has not been cadmium plated.

(k) The inspection required by paragraph (f) of this AD need not be performed and the propeller may remain in service if:

(1) The operator can show that no cadmium plating exists in the prohibited areas of that propeller; or

(2) It is a new propeller that has never been overhauled.

Alternative Methods of Compliance

(l) The Manager, Boston Aircraft Certification Office, FAA, 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

(m) Contact Terry Fahr, Aerospace Engineer, Boston Aircraft Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: terry.fahr@faa.gov; telephone (781) 238-7155; fax (781) 238-7170, for more information about this AD.

Material Incorporated by Reference

(n) You must use Dowty Rotol Service Bulletin No. 61-754, dated June 12, 1970 to perform the heat treatment required by this AD. The Director of the Federal Register approved the incorporation by reference of this service bulletin in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Dowty Propellers, Anson Business Park, Cheltenham Road East, Gloucester GL2 9QN, UK; Telephone 44 (0) 1452 716000; fax 44 (0) 1452 716001 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 May 5, 2010.
Peter A. White,
Assistant Manager, Engine and Propeller Directorate,
Aircraft Certification Service.

2010-10-24 Dassault-Aviation: Amendment 39-16303. Docket No. FAA-2009-0791; Directorate Identifier 2008-NM-213-AD.

Effective Date

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

Affected ADs

(b) None.

Applicability

(c) This AD applies to all Dassault-Aviation Model FALCON 2000 and FALCON 2000EX airplanes, certificated in any category.

Subject

(d) Air Transport Association (ATA) of America Code 32: Landing gear.

Reason

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

> During the overhaul of a Main Landing Gear (MLG) of a Falcon 2000, the sleeve on the hydraulic flow restrictor in the shock absorber was found displaced, because of the rupture of its three retaining screws. In this situation, the energy dissipation function of the shock absorber is lost and high loads may be transmitted to the aircraft structure during landing. Structural integrity may thus not be guaranteed over the entire certified landing conditions domain particularly in combination of high landing weight and high vertical speed.
>
> Failure of the retaining screws has been determined to be the final phase of a slow unscrewing process under normal operational conditions. The unsafe condition only exists once the three screws have failed.
>
> For the reasons described above, Airworthiness Directive (AD) 2008-0178 had been released to require a repetitive borescope inspection of the flow restriction system [for damage; such as condition of the sleeve of the dumping device, and broken or loose screws] and, if necessary, repair of the shock absorber per Dassault Aviation Service Bulletins (SB) F2000-367 and F2000EX-185 (corresponding to modification M3120) developed with the landing gear manufacturer's instructions. * * *

> After qualification testing, modification M3120 has been approved by the European Aviation Safety Agency (EASA), as a definitive solution.
>
> As a consequence, the present AD retains the requirements of AD 2008-0178 which is superseded and introduces M3120 as a terminating action to the repetitive inspections requirement, and further mandates its embodiment no later than the next MLG shock absorber overhaul.

The unsafe condition is failure of three retaining screws of the MLG shock absorber, which could adversely affect the structural integrity of these airplanes. The repair can include additional inspections, modifying the shock absorbers, and contacting the manufacturer for repair instructions and doing the repair.

Actions and Compliance

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

(1) For airplanes on which each new or previously overhauled MLG shock absorber has accumulated 4,200 or more total landings since new or overhauled as of the effective date of this AD: Within 8 months after the effective date of this AD, inspect the shock absorber for damage, in accordance with the Accomplishment Instructions of Dassault Mandatory Service Bulletin F2000-366, Revision 2; or F2000EX-167, Revision 1; both dated December 1, 2008; as applicable. If any damage is found, repair the shock absorber at the time specified in Table 1 of this AD, in accordance with the Accomplishment Instructions of Dassault Mandatory Service Bulletin F2000-366, Revision 2; or F2000EX-167, Revision 1; both dated December 1, 2008; as applicable.

(2) For airplanes on which each new or previously overhauled MLG shock absorber has accumulated 1,900 or more total landings and less than 4,200 total landings since new or overhauled as of the effective date of this AD: At the applicable compliance time specified in paragraph (f)(2)(i) or (f)(2)(ii) of this AD, inspect the shock absorber for damage, in accordance with the Accomplishment Instructions of Dassault Mandatory Service Bulletin F2000-366, Revision 2; or F2000EX-167, Revision 1; both dated December 1, 2008; as applicable. If any damage is found, repair the shock absorber at the applicable time specified in Table 1 of this AD, in accordance with the Accomplishment Instructions of Dassault Mandatory Service Bulletin F2000-366, Revision 2; or F2000EX-167, Revision 1; both dated December 1, 2008; as applicable.

(i) For airplanes on which 6 or more steep-approach landings have been performed before the effective date of this AD: Within 8 months after the effective date of this AD, do the actions required by paragraph (f)(2) of this AD.

(ii) For airplanes on which less than or equal to 5 steep-approach landings have been performed before the effective date of this AD: Within 18 months after the effective date of this AD or 5,000 total landings since new or overhauled, whichever occurs first, do the actions required by paragraph (f)(2) of this AD.

(3) For airplanes on which each new or previously overhauled MLG shock absorber has accumulated less than 1,900 total landings since new or overhauled as of the effective date of this AD: Before the accumulation of 3,000 total landings since new or overhauled, inspect the shock absorber for damage, in accordance with the Accomplishment Instructions of Dassault Mandatory Service Bulletin F2000-366, Revision 2; or F2000EX-167, Revision 1; both dated December 1, 2008; as applicable. If any damage is found, repair the shock absorber at the time specified in Table 1 of this AD, in accordance with the Accomplishment Instructions of Dassault Mandatory Service

Bulletin F2000-366, Revision 2; or F2000EX-167, Revision 1; both dated December 1, 2008; as applicable.

Table 1 – Compliance Times for Repair

Damage Found	Compliance Time
1, 2, or 3 loose screws	Within 12 months after the finding
1 broken screw	Within 6 months after the finding
2 or 3 broken screws	Within 10 flight cycles after the finding
3 broken screws with detached damping device	Before further flight

(4) Repeat the inspections required by paragraphs (f)(1), (f)(2), and (f)(3) of this AD, as applicable, thereafter at intervals not to exceed 1,900 landings until accomplishment of the actions specified in paragraph (f)(6) of this AD.

(5) Accomplishment of any inspection or repair before the effective date of this AD in accordance the applicable service information specified in Table 2 of this AD is acceptable for compliance with the corresponding requirements of this AD.

Table 2 – Credit Service Information

Document	Revision	Date
Dassault Mandatory Service Bulletin F2000-366	1	August 18, 2008
Dassault Mandatory Service Bulletin F2000EX-167	Original	August 18, 2008
Dassault Service Bulletin F2000-366	Original	April 18, 2008

(6) For airplanes on which Dassault Modification M3120 has not been embodied as of the effective date of this AD: Before the accumulation of 6,000 total landings or 144 months on each new or previously overhauled MLG shock absorber, whichever occurs first: Modify the existing left- and right-hand MLG shock absorbers by installing MLG shock absorbers with part number (P/N) D23365000-4 or P/N D23366000-4 (for Model Falcon 2000 airplanes), or P/N D23745000-2 or P/N D23746000-2 (for Model Falcon 2000EX airplanes), in accordance with the Accomplishment Instructions of Dassault Service Bulletin F2000EX-185, Revision 2; or F2000-367, Revision 4; both dated February 4, 2009; as applicable. Where these service bulletins specify contacting the manufacturer for repair instructions, contact the manufacturer and do the repair at the applicable compliance times specified in the Accomplishment Instructions of the applicable service bulletin.

(7) Accomplishment of the modification required by paragraph (f)(6) of this AD before the effective date of this AD in accordance with the applicable service information specified in Table 3 of this AD is acceptable for compliance with the corresponding requirements of this AD.

Table 3 – Credit Service Information for Modification

Document	Revision	Date
Dassault Service Bulletin F2000EX-185	Original	August 18, 2008
Dassault Service Bulletin F2000EX-185	1	December 1, 2008
Dassault Service Bulletin F2000-367	1	July 10, 2008
Dassault Service Bulletin F2000-367	2	August 18, 2008
Dassault Service Bulletin F2000-367	3	December 1, 2008

(8) Accomplishment of the modification required by paragraph (f)(6) of this AD ends the repetitive inspections required by paragraph (f)(4) of this AD.

(9) As of the effective date of this AD, no person may install on any airplane as a replacement part, a MLG shock absorber, unless it has been modified according to the requirements specified in paragraph (f)(6) of this AD.

FAA AD Differences

Note 1: This AD differs from the MCAI and/or service information as follows: Paragraph (1) of the MCAI requires updating the operator's maintenance program; however, that action is not required by this AD. The maintenance program does not require FAA approval.

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.

(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 EASA Airworthiness Directive 2009-0050, dated March 5, 2009, and the service information identified in Table 4 of this AD, for related information.

Table 4 – Service Information

Document	Revision	Date
Dassault Mandatory Service Bulletin F2000-366	2	December 1, 2008
Dassault Mandatory Service Bulletin F2000EX-167	1	December 1, 2008
Dassault Service Bulletin F2000-367	4	February 4, 2009
Dassault Service Bulletin F2000EX-185	2	February 4, 2009

Material Incorporated by Reference

(i) You must use the applicable service information contained in Table 5 of this AD to do the actions required by this AD, unless the AD specifies otherwise.

Table 5 – Material Incorporated by Reference

Document	Revision	Date
Dassault Mandatory Service Bulletin F2000-366	2	December 1, 2008
Dassault Mandatory Service Bulletin F2000EX-167	1	December 1, 2008
Dassault Service Bulletin F2000-367	4	February 4, 2009
Dassault Service Bulletin F2000EX-185	2	February 4, 2009

(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 Dassault Falcon Jet, P.O. Box 2000, South Hackensack, New Jersey 07606; telephone 201-440-6700; Internet http://www.dassaultfalcon.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.

(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 May 4, 2010.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-10-25 Airbus: Amendment 39-16304. Docket No. FAA-2009-0914; Directorate Identifier 2009-NM-122-AD.

Effective Date

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

Affected ADs

(b) None.

Applicability

(c) This AD applies to Airbus Model A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes; and Airbus Model A340-311, -312, and -313 airplanes; certificated in any category; all manufacturer serial numbers on which Airbus Modification 48825 has been embodied in production, except those on which Airbus Modification 57409 has been embodied in production.

Subject

(d) Air Transport Association (ATA) of America Code 92.

Reason

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

> In the door 2 area, the hat-racks are supplied with a basic wire harness which includes "Oxygen Masks" activation.
>
> In case of a monument installation, the respective non-used hat-rack connections between monument and outer skin are put on stow. It
> was noticed in production, that the distance between the stowed wire harness and the monument could be too small. This condition, if not corrected, could lead to the short circuit of wires dedicated to oxygen, which, in case of emergency, could result in a large number of passenger oxygen masks not being supplied with oxygen, possibly causing personal injuries.

For the reasons described above, this AD requires the modification of the hat rack connectors on stow, and the rerouting of the associated wire harness in case of monument installed in door 2 area.

Actions and Compliance

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

(1) For airplanes on which a monument is installed in the door 2 area, as specified in Airbus Mandatory Service Bulletin A330-92-3070, Revision 02, dated August 19, 2009; or Airbus Mandatory Service Bulletin A340-92-4073, Revision 02, dated October 12, 2009: Within 24 months after the effective date of this AD, modify both the left-hand (L/H) and right-hand (R/H) hat-rack connectors, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-92-3070, Revision 02, dated August 19, 2009; or Airbus Mandatory Service Bulletin A340-92-4073, Revision 02, dated October 12, 2009; as applicable; except as provided by paragraphs (f)(2) and (f)(3) of this AD.

(2) Modifications done before the effective date of this AD, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-92-3070 or A340-92-4073, both dated July 10, 2008, as applicable, are acceptable for compliance with the applicable requirements of paragraph (f)(1) of this AD, provided that within 24 months after the effective date of this AD, the "ADDITIONAL WORK" specified in the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-92-3070, Revision 01, dated January 12, 2009, or Revision 02, dated August 19, 2009; or Airbus Mandatory Service Bulletin A340-92-4073, Revision 01, dated January 13, 2009, or Revision 02, dated October 12, 2009; as applicable; is accomplished.

(3) Modifying both the L/H and R/H hat-rack connectors is also acceptable for compliance with the requirements of paragraph (f)(1) of this AD if done before the effective date of this AD in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-92-3070, Revision 01, dated January 12, 2009; or Airbus Mandatory Service Bulletin A340-92-4073, Revision 01, dated January 13, 2009.

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, Aerospace Engineer, 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 MCAI European Aviation Safety Agency Airworthiness Directive 2009-0077, dated April 6, 2009; Airbus Mandatory Service Bulletin A330-92-3070, Revision 02, dated August 19, 2009; and Airbus Mandatory Service Bulletin A340-92-4073, Revision 02, dated October 12, 2009; for related information.

Material Incorporated by Reference

(i) You must use Airbus Mandatory Service Bulletin A330-92-3070, Revision 02, dated August 19, 2009; or Airbus Mandatory Service Bulletin A340-92-4073, Revision 02, dated October 12, 2009; 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 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.

(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 May 6, 2010.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraaft Certification Service.

2010-10-26 Bombardier, Inc.: Amendment 39-16305. Docket No. FAA-2010-0169; Directorate Identifier 2009-NM-102-AD.

Effective Date

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

Affected ADs

(b) This AD supersedes AD 2007-14-02, Amendment 39-15124.

Applicability

(c) This AD applies to Bombardier, Inc. airplanes, certificated in any category, identified in paragraphs (c)(1), (c)(2), and (c)(3) of this AD.

(1) Model CL-600-1A11 (CL-600), serial numbers 1004 through 1085 inclusive.

(2) Model CL-600-2A12 (CL-601), serial numbers 3001 through 3066 inclusive.

(3) Model CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604), serial numbers 5001 through 5194 inclusive, and serial numbers 5301 through 5665 inclusive.

Subject

(d) Air Transport Association (ATA) of America Code 32: Landing Gear.

Reason

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

> A specific batch of nose landing gear (NLG) and NLG door selector valves, part number (P/N) 601R75146-1 (Kaiser Fluid Technologies P/N 750006000), may have had their end caps incorrectly lock-wired and/or incorrectly torqued during assembly. This condition can lead to the end cap backing off, with consequent damage to a seal and internal leakage within the valve. Subsequently, if electrical power is transferred or removed from the aircraft before the NLG safety pin is installed, any pressure, including residual pressure, in the No. 3 hydraulic system can result in an uncommanded NLG retraction.
>
> Although there have been no such cases reported on the Challenger models covered by this directive, there have been six cases reported on the CRJ (CL600-2B19) aircraft, one of which resulted in the collapse of the NLG at the departure gate.

This directive mandates a check of the NLG and NLG door selector valves installed on all aircraft in the Applicability section * * *. Depending on the results; replacement, rework and/or additional identification of the valves may be required.

This [MCAI] revision corrects a Service Bulletin number in the Corrective Actions table.

Notes:

1. The check is required whether or not an aircraft has previously been checked in accordance with AD CF-2006-16R1 (now superseded and cancelled by this AD). This is necessary since, following the issuance of AD CF-2006-16R1, it has been determined that the serial number (S/N) range of the affected valves requires expansion from the previous upper limit of S/N 0767 to S/N 2126 and the exact location of each of these additional valves is unknown.

2. Valves that have a S/N with suffix "T" have been manufactured by Tactair Fluid Controls Inc. and do not require any corrective action.

3. Valves manufactured by Kaiser Fluid Technologies, P/N 750006000, with S/N 0001 through 2126, and ink stamp "SB750006000-1", have already been checked and reworked as necessary and do not require any additional corrective action.

4. The Illustrated Parts Catalog, for each of the models covered in the Applicability section * * *, gives instructions not to install a valve manufactured by Kaiser Fluid Technologies, P/N 750006000, with S/N 0001 through 2126, if the marking "SB750006000-1" is not ink stamped on the valve.

5. CL-600-2B16 (CL-605) aircraft, S/Ns 5701 and subsequent, are not affected by this directive. They were delivered with valves, P/N 750006000, that have either a S/N with suffix "T" or have the ink stamp marking "SB750006000-1".

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 2007-14-02 WITH NEW SERVICE INFORMATION BUT NO CHANGES TO ACTIONS:

Inspection and Corrective Action

(g) For airplanes having serial numbers (S/Ns) as identified in the service bulletins specified in Table 1 of this AD, as applicable: Within 500 flight hours or 12 months after August 16, 2007 (the effective date AD 2007-14-02), whichever occurs first, inspect to determine the manufacturer part numbers (P/Ns) and serial numbers of the selector valves of the nose landing gear (NLG) and nose

gear door. A review of airplane maintenance records is acceptable in lieu of this inspection if the serial numbers of the selector valves can be conclusively determined from that review. For any subject selector valve having Tactair Fluid Controls P/N 750006000 and a S/N from 0001 through 0767 inclusive, before further flight, do related investigative (including a general visual inspection for proper installation of the lock wire of the end cap) and corrective actions; in accordance with the applicable service bulletin identified in Table 1 of this AD. After the effective date of this AD, use only the applicable service bulletin specified in Table 2 of this AD.

Table 1 – Bombardier Service Bulletins

Model –	**Bombardier Service Bulletin** –	**Revision** –	**Dated** –
CL-600-1A11 (CL-600) airplanes	600-0721	01	February 20, 2006
CL-600-2A12 (CL-601), and CL-600-2B16 (CL-601-3A and CL-601-3R) airplanes	601-0558	01	February 20, 2006
CL-600-2B16 (CL-604) airplanes)	604-32-021	02	February 20, 2007

Table 2 – Bombardier Service Bulletins for Actions in Paragraph (g) of this AD

Model –	**Bombardier Service Bulletin** –	**Revision** –	**Dated** –
CL-600-1A11 (CL-600) airplanes	600-0721	03	February 23, 2009
CL-600-2A12 (CL-601), and CL-600-2B16 (CL-601-3A and CL-601-3R) airplanes	601-0558	03	February 23, 2009
CL-600-2B16 (CL-604) airplanes	604-32-021	04	February 23, 2009

Note 1: Operators should be aware that selector valves having Bombardier P/N 601R75146-1 may be supplied by different manufacturers and have different manufacturer part numbers. Only airplanes having selector valves manufactured by Tactair Fluid Controls, having P/N 750006000, are subject to the investigative and corrective actions specified in paragraph (g) of this AD.

Note 2: For the purposes of this AD, a general visual inspection is: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to ensure visual access to all surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or droplight and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

Note 3: The service bulletins identified in Table 1 of this AD refer to Tactair Fluid Controls Service Bulletin SB750006000-1, Revision A, dated September 6, 2005, as an additional source of guidance for doing the related investigative and corrective actions required by this AD.

Actions Accomplished According to Previous Issue of Service Bulletin

(h) Actions accomplished before August 16, 2007, in accordance with Bombardier Service Bulletin 604-32-021, Revision 01, dated February 20, 2006 (for Model CL-600-2B16 (CL-604) airplanes), are considered acceptable for compliance with the corresponding actions specified in paragraph (g) of this AD.

NEW REQUIREMENTS OF THIS AD:

Actions

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

(1) Within 250 flight hours or within 6 months after the effective date of this AD, whichever occurs first: Do an inspection of the selector valve of the NLG and the door selector valve of the NLG to determine if P/N 601R75146-1 (Kaiser Fluid Technologies P/N 750006000) is installed, in accordance with the Accomplishment Instructions of the applicable service bulletin specified in Table 3 of this AD. Doing the inspection required by this paragraph terminates the inspection required by paragraph (g) of this AD.

Table 3 – Bombardier Service Bulletins for Actions in Paragraph (i) of this AD

Model –	**Bombardier Service Bulletin** –	**Revision** –	**Dated** –
CL-600-1A11 (CL-600) airplanes	600-0721	03	February 23, 2009
CL-600-2A12 (CL-601), and CL-600-2B16 (CL-601-3A and CL-601-3R) airplanes	601-0558	03	February 23, 2009
CL-600-2B16 (CL-604) airplanes	604-32-021	04	February 23, 2009

(2) If, during any inspection required by paragraph (i)(1) of this AD, any selector valve having P/N 601R75146-1 (Kaiser Fluid Technologies P/N 750006000) and having a S/N from 0001 through 2126 inclusive without a suffix "T" is found, and the valve is not ink-stamped with the marking "SB750006000-1": Before further flight, do a general visual inspection for proper installation of the lock wire of the end cap, and replace it with a serviceable selector valve as applicable, in accordance with the Accomplishment Instructions of the applicable service bulletin specified in Table 3 of this AD.

(3) Doing the actions before the effective date of this AD in accordance with the applicable service bulletin specified in Table 4 of this AD is acceptable for compliance with the corresponding actions specified in this AD.

Table 4 – Credit Service Bulletins

Service Bulletin	Revision Level	Date
Bombardier Service Bulletin 600-0721	02	June 16, 2008
Bombardier Service Bulletin 601-0558	02	June 16, 2008
Bombardier Service Bulletin 604-32-021	03	June 16, 2008

FAA AD Differences

Note 4: This AD differs from the MCAI and/or service information as follows: No differences.

Other FAA AD Provisions

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (ACO), 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, FAA, New York ACO, 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 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

(k) Refer to MCAI Canadian Airworthiness Directive CF-2009-21R1, dated May 20, 2009; Bombardier Service Bulletin 600-0721, Revision 03, dated February 23, 2009; Bombardier Service Bulletin 601-0558, Revision 03, dated February 23, 2009; and Bombardier Service Bulletin 604-32-021, Revision 04, dated February 23, 2009; for related information.

Material Incorporated by Reference

(l) You must use the service information contained in Table 5 of this AD to do the actions required by this AD, unless the AD specifies otherwise.

Table 5 – Material Incorporated by Reference

Document	Revision	Date
Bombardier Service Bulletin 600-0721	03	February 23, 2009
Bombardier Service Bulletin 601-0558	03	February 23, 2009
Bombardier Service Bulletin 604-32-021	04	February 23, 2009

(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 Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; e-mail thd.crj@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.

(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 May 6, 2010.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-11-02 Gulfstream Aerospace LP (Type Certificate Previously Held by Israel Aircraft Industries, Ltd.): Amendment 39-16307. Docket No. FAA-2010-0034; Directorate Identifier 2009-NM-120-AD.

Effective Date

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

Affected ADs

(b) This AD supersedes AD 2007-03-05, Amendment 39-14916.

Applicability

(c) This AD applies to Gulfstream Aerospace LP (Type Certificate previously held by Israel Aircraft Industries, Ltd.) Model Gulfstream 100 airplanes; and Model Astra SPX and 1125 Westwind Astra airplanes; certificated in any category; all serial numbers.

Subject

(d) Air Transport Association (ATA) of America Code 31: Instruments.

Reason

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

> To increase pilots' awareness to the possibility of incomplete closure of the Main Entry Door (MED) by the following means:
>
> 1. Splitting the common caution light CABIN DOOR signaling both MED Improper Closure and MED Inflatable Seal Failure into two separate lights: CABIN DOOR and CABIN DOOR SEAL.
>
> 2. Converting the separated CABIN DOOR Caution light into a Warning light by changing its color to red.
>
> Note: Aircraft Flight Manuals (AFMs) refer to these changes as MOD G1-20052.
>
> Incomplete closure of the MED may be followed by in-flight opening of the door. As a result, the MED and the adjacent fuselage structure may be damaged during opening and landing impact. Damage to the left engine by flying debris and objects may also occur.

Required actions include modifying the warning and caution lights panel (WACLP), changing the WACLP and MED wiring, changing the wiring harness connecting the MED to the WACLP, and ensuring the Log of Modification of the AFM includes reference to MOD G1-20052.

Restatement of Requirements of AD 2007-03-05, With No Changes

(f) Unless already done, do the following actions. Within 10 days after February 15, 2007 (the effective date of AD 2007-03-05), amend Section IV, Normal Procedures, of the following Gulfstream airplane flight manuals (AFMs): Model 1125 Astra, 25W-1001-1; Model Astra SPX, SPX-1001-1; and Model G100, G100-1001-1; as applicable; to include the following statement. Insertion of copies of this AD at the appropriate places of the AFMs is acceptable.

"1. BEFORE ENGINE START:
(PRE and POST Mod 20052/Gulfstream Service Bulletin 100-31-284):
CABIN DOOR–CLOSED (Physically verify door latch handle pin is fully engaged in the handle lock)

2. BEFORE TAXIING:
Change the CABIN DOOR procedure as follows (POST Mod 20052/Gulfstream Service Bulletin 100-31-284):
Check CABIN DOOR light–OUT

3. BEFORE TAKE-OFF:
Insert between the POSITION lights switch and the THRUST LEVERS procedures:
(PRE Mod 20052/Gulfstream Service Bulletin 100-31-284):
Check CABIN DOOR light–OUT (50% N1 may be required)
(POST Mod 20052/Gulfstream Service Bulletin 100-31-284):
Check CABIN DOOR light–OUT
CABIN DOOR SEAL light–OUT (50% N1 may be required)"

Note 1: Mod 20052 is equivalent to Gulfstream Service Bulletin 100-31-284, dated August 17, 2006.

Note 2: This AD may be accomplished by a holder of a Private Pilot's License.

NEW REQUIREMENTS OF THIS AD:

Actions and Compliance

(g) Unless already done, for all airplanes except airplane serial number 158, do the following actions.

(1) Within 250 flight hours after the effective date of this AD: Modify the WACLP in accordance with the Accomplishment Instructions of the applicable service bulletin identified in Table 1 of this AD.

Table 1 – Modification Service Information

Honeywell Service Bulletin –	Dated –
80-0548-31-0001	April 1, 2006
80-0548-31-0002	March 1, 2006
80-5090-31-0001	March 1, 2006

(2) Within 250 flight hours after the effective date of this AD: Change the WACLP and MED wiring in accordance with the Accomplishment Instructions of Gulfstream Service Bulletin 100-31-284, dated August 17, 2006.

(3) Within 250 flight hours after the effective date of this AD: Change the wiring harness connecting the MED to the WACLP in accordance with the Accomplishment Instructions of Gulfstream Service Bulletin 100-31-284, dated August 17, 2006.

(4) Within 250 flight hours after the effective date of this AD: Verify that the Log of Modification of the relevant airplane flight manual (AFM) includes reference to MOD G1-20052, and, if no reference is found, revise the Log of Modification of the AFM to include reference to the modification.

(5) Doing the modifications specified in paragraphs (g)(1), (g)(2), (g)(3), and (g)(4) of this AD terminates the requirements of paragraph (f) of this AD, and after the modifications have been done, the AFM limitation required by paragraph (f) of this AD may be removed from the AFM.

FAA AD Differences

Note 3: This AD differs from the MCAI and/or service information as follows: Paragraph (g)(5) of this AD mandates a terminating action. However, Israeli Airworthiness Directive 31-06-11-05, dated May 27, 2009, does not explicitly mandate a terminating action. This difference has been coordinated with the Civil Aviation Authority of Israel.

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: Mike Borfitz, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-2677; 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 Israeli Airworthiness Directive 31-06-11-05, dated May 27, 2009, and the applicable service information identified in Table 2 of this AD for related information.

Table 2 – Service Information

Service Information	Date
Gulfstream Service Bulletin 100-31-284	August 17, 2006
Honeywell Service Bulletin 80-0548-31-0001	April 1, 2006
Honeywell Service Bulletin 80-0548-31-0002	March 1, 2006
Honeywell Service Bulletin 80-5090-31-0001	March 1, 2006

Material Incorporated by Reference

(j) You must use the service information contained in Table 3 of this AD 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 the service information contained in Table 3 of this AD under 5 U.S.C. 552(a) and 1 CFR part 51.

Table 3 – Material Incorporated by Reference

Service Information	Date
Gulfstream Service Bulletin 100-31-284	August 17, 2006
Honeywell Service Bulletin 80-0548-31-0001	April 1, 2006
Honeywell Service Bulletin 80-0548-31-0002	March 1, 2006
Honeywell Service Bulletin 80-5090-31-0001	March 1, 2006

(2) For Gulfstream service information identified in this AD, contact Gulfstream Aerospace Corporation, P.O. Box 2206, Mail Station D-25, Savannah, Georgia 31402-2206; telephone 800-810-4853; fax 912-965-3520; e-mail pubs@gulfstream.com; Internet http://www.gulfstream.com/product_support/technical_pubs/pubs/index.htm. For Honeywell service information identified in this AD, contact Honeywell Aerospace, Technical Publications and Distribution, M/S 2101-201, P.O. Box 52170, Phoenix, Arizona 85072-2170; telephone 602-365-5535; fax 602-365-5577; Internet http://www.honeywell.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.

(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 May 7, 2010.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-11-03 Airbus: Amendment 39-16308. Docket No. FAA-2010-0172; Directorate Identifier 2009-NM-189-AD.

Effective Date

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

Affected ADs

(b) None.

Applicability

(c) This AD applies to Airbus Model A300 B2-1A, B2-1C, B2K-3C, B2-203, B4-2C, B4-103, B4-203, B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, and C4-605R Variant F airplanes; and Model A310-203, -204, -221, -222, -304, -322, -324, and -325 airplanes; certificated in any category, all certified models and all serial numbers on which any Crissair check valve part number 2S2794-1 is installed.

Subject

(d) Air Transport Association (ATA) of America Code 29: Hydraulic Power; and 26: Fire Protection.

Reason

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

> In the past, some operators have reported difficulties to pressurise the hydraulic reservoirs, due to leakage of the Crissair reservoir air pressurization check valves. In some cases, the air conditioning system was contaminated with hydraulic mist. The leakage of the check valves was caused by an incorrect spring material. The affected Crissair check valves Part Number (P/N) 2S2794 were then replaced with improved check valves P/N 2S2794-1 in accordance with Airbus Service Information Letter 29-020.
>
> More recently, similar issues were again reported on aeroplanes with Crissair check valves P/N 2S2794-1 installed. The investigations carried out on those check valves have shown that a spring, mounted inside the valve, does not meet the Airbus type design specifications.

This situation, if not corrected, can cause hydraulic system functional degradation, possibly resulting in reduced control of the aeroplane when combined with an air duct leak, air conditioning system contamination or, if installed, malfunction of the fire extinguishing system in the Class 'C' cargo compartment.

For the reasons described above, EASA [European Aviation Safety Agency] AD 2008-0166 was issued to require the inspection of the Crissair check valves P/N 2S2794-1, to identify serial numbers (s/n) and the replacement of the affected ones with serviceable units.

Later on, further investigation by the vendor Crissair revealed more suspect check valves P/N 2S2794-1. Based on this, it was concluded that EASA AD 2008-0166 did not adequately address the unsafe condition and also did not correctly identify the Functional Item Numbers (FIN) of the various aeroplane installations of the affected valves. Consequently, EASA AD Cancellation Notice No.: 2008-0166-CN was issued on 29 October 2008 to cancel EASA AD 2008-0166.

An updated list of suspect check valves with P/N 2S2794-1 has now been issued by Crissair Inc., the manufacturer. Consequently, this EASA AD requires the identification of the check valves by s/n and the replacement of the affected ones with serviceable units.

Actions and Compliance

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

(1) At the applicable compliance time specified in Table 1 of this AD: For Crissair check valves, P/N 2S2794-1, identify the serial number using Appendix 1 of the applicable service bulletin identified in Table 2 of this AD, in accordance with the Accomplishment Instructions of the applicable service bulletin identified in Table 2 of this AD. Except as provided by paragraph (f)(2) of this AD, for any valve having a serial number listed in Appendix 1 of the applicable service bulletin identified in Table 2 of this AD, before further flight, install a new or modified check valve in accordance with the applicable service bulletin identified in Table 2 of this AD.

Table 1 – Affected Check Valve Installation

Affected Check Valve Installation, Identified by FIN (Functional Item Number)	**Compliance Time**
(i) Airplanes having Hydraulic System with FIN 29/1388, FIN 29/2388 and FIN 29/3388	Within 4 months after the effective date of this AD
(ii) Cargo Compartment Fire Extinguishing System, equipped with Flow Metering System (A310 and A300-600 airplanes having “post-Airbus modification 06403” only) FIN 26/0203	Within 4 months after the effective date of this AD
(iii) Airplanes having Hydraulic System with FIN 29/1378, FIN 29/1382 and FIN 29/1394	Within 30 months after the effective date of this AD
(iv) Hydraulic System (A300 airplanes having configuration 01 “pre-Airbus modification 03079” only) FIN 29/1381	Within 30 months after the effective date of this AD

(2) Check valves P/N 2S2794-1 marked with an "R" have already been modified in accordance with Crissair Service Bulletin 20070407-29-1 and do not need to be replaced. Check valves with P/N 2S2794 are not affected and do not need to be replaced.

(3) As of the effective date of this AD, no person may install any Crissair check valve, P/N 2S2794-1, on any airplane unless it has a serial number other than those listed in Appendix 1 of the applicable service bulletin identified in Table 2 of this AD, or unless check valve P/N 2S2794-1 is marked with an "R."

Table 2 – Service Information

For Airbus Model –	Use Airbus Mandatory Service Bulletin –	Revision –	Dated –
A300 airplanes	A300-29-0124, including Appendices 1, 2, and 3	02	March 10, 2009
A300-600 airplanes	A300-29-6060, including Appendices 1, 2, and 3	01	March 10, 2009
A310 airplanes	A310-29-2097, including Appendices 1, 2, and 3	01	March 19, 2009

(4) Submit an inspection report of the inspection required by paragraph (f)(1) of this AD to Airbus Customer Services Directorate, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 33 33; fax +33 5 61 93 42 51; e-mail: sb.reporting@airbus.com; at the applicable time specified in paragraph (f)(4)(i) or (f)(4)(ii) of this AD. The report must include the information specified on the inspection report sheet provided in the applicable service bulletin identified in Table 2 of this AD.

(i) If the inspection was done on or after the effective date of this AD: Submit the report within 30 days after the inspection.

(ii) If the inspection was done before the effective date of this AD: Submit the report within 30 days after the effective date of this AD.

FAA AD Differences

Note 1: This AD differs from the MCAI and/or service information as follows: Although the MCAI states not to install the part identified in paragraph (f)(3) of this AD after accomplishing the actions specified in paragraph (f)(1) of this AD, this AD prohibits installation of the part as of the effective date of this AD.

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: 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

(h) Refer to MCAI EASA Airworthiness Directive 2009-0171, dated August 5, 2009; and the service bulletins identified in Table 2 of this AD; for related information.

Material Incorporated by Reference

(i) You must use the service information contained in Table 3 of this AD 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-EAW (Airworthiness Office), 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; e-mail: account.airworth-eas@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.

(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 3 – Material incorporated by reference

Document	Revision	Date
Airbus Mandatory Service Bulletin A300-29-0124, including Appendices 1, 2, and 3	02	March 10, 2009
Airbus Mandatory Service Bulletin A300-29-6060, including Appendices 1, 2, and 3	01	March 10, 2009
Airbus Mandatory Service Bulletin A310-29-2097, including Appendices 1, 2, and 3	01	March 19, 2009

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