FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES
LARGE AIRCRAFT

BIWEEKLY 2010-15

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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
Biweekly 2010-12			
2006-09-11	COR	Airbus	A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; Model A320-211, -212, -214, -231, -232, and -233 airplanes; Model A321-111, -112, and -131 airplanes; and Model A321-211 and -231
2010-11-01		Embraer	EMB-135BJ, -135ER, -135KE, -135KL, -135LR, -145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP airplanes, certificated in any category, all serial numbers, except Model EMB-145LR
2010-11-12	S 99-25-14	McDonnell Douglas	MD-11 and MD-11F
2010-11-13		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, -100 SU, -200 LR, -200 STD, and -200 SU
2010-11-14		Embraer	ERJ 190-100 STD, -100 LR, -100 IGW, -200 STD, -200 LR, and -200 IGW

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Biweekly 2010-13			
2010-10-17	S 97-25-02, 2000-02-05, 2006-15-07, 2006-17-01	Mitsubishi Heavy Industries, Ltd.	See AD
2010-11-11		Learjet Inc	60
2010-12-03		CFM International	Engine: CFM56-3 and -3B
2010-12-05	S 2009-06-18	Bombardier	CL-600-2C10 (Regional Jet Series 700, 701, & 702)
2010-12-06		Bombardier, Inc	DHC-8-400, DHC-8-401, and DHC-8-402
2010-12-07		Embraer	EMB-135ER, -135KE, -135KL, and -135LR airplanes; and EMBRAER Model EMB-145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP
2010-12-08		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, and F4-622R airplanes; Model C4-605R Variant F airplanes; and Model A310-203, -204, -221, -222, -304, -322, -324, and -325
2010-12-09		Honeywell International	Appliance: APU
2010-12-10	S 2010-06-15	General Electric	Engine: CF6-45A, CF6-45A2, CF6-50A, CF6-50C, CF6-50CA, CF6-50C1, CF6-50C2, CF6-50C2B, CF6-50C2D, CF6-50C2-F, CF6-50C2-R, CF6-50E, CF6-50E1, and CF6-50E2
Biweekly 2010-14			
2008-01-01		The Boeing Company	737-200, -300, -400, -500, -600, -700, -800, and -900 series airplanes; 747-400 series airplanes; 757-200 and -300 series airplanes; 767-200, -300, and -400ER series airplanes; 777-200 series airplanes
2009-15-16		McDonnell Douglas Corporation	DC-9-11, DC-9-12, DC-9-13, DC-9-14, DC-9-15, and DC-9-15F, 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-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), MD-88, and MD-90-30 airplanes
2010-13-02		Fokker Services B.V.	F.27 Mark 500 and 600 airplanes
2010-13-03		The Boeing Company	777-200LR and -300ER series airplanes
2010-13-04		Bombardier, Inc.	DHC-8-400, DHC-8-401, and DHC-8-402 series airplanes
2010-13-05	COR	Bombardier, Inc.	CL-600-2C10 (Regional Jet Series 700 & 701); CL-600-2D15 (Regional Jet Series 705) and Model CL-600-2D24 (Regional Jet Series 900) airplanes
2010-13-06		McDonnell Douglas Corporation	DC-10-10, DC-10-10F, and MD-10-10F airplanes
2010-13-09		CFM International, S.A	CFM56-5, -5B, and -7B series turbofan engines
2010-13-11		Fokker Services B.V.	F.28 Mark 0070 and Mark 0100 airplanes
2010-13-12		The Boeing Company	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series airplanes
2010-14-01		The Boeing Company	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400F, 747SR, and 747SP series airplanes
2010-14-02		Bombardier, Inc.	CL-600-2B16 (CL-604 Variant) airplanes
2010-14-03	S 2009-06-17	Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440) airplanes
2010-14-04		Airbus	A330-243, -341, -342, and -343 airplanes; and A340-541 and -642 airplanes
2010-14-05		Bombardier, Inc.	CL-600-1A11 (CL-600), CL-600-2A12 (CL-601), CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604) airplanes
2010-14-06	S 2008-06-24	The Boeing Company	737-200, -300, -400, and -500 series airplanes
2010-14-07	S 2006-05-06	The Boeing Company	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series airplanes
2010-14-08		The Boeing Company	747-400, 747-400D, and 747-400F series airplanes
2010-14-09		The Boeing Company	747-100B, 747-200B, 747-200F, 747-300, 747-400, 747-400F, and 747SP series airplanes
2010-14-10	S 94-17-01	The Boeing Company	747-100, 747-200B, and 747-200F series airplanes

LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability

Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency

Biweekly 2010-15

2010-10-06	S 2007-18-04	Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343
2010-14-11		Bombardier, Inc	DHC-8-400, -401, and -402
2010-14-13		Boeing	777-200, -200LR, -300, and -300ER
2010-14-16	S 2008-17-06	Bombardier, Inc	DHC-8-400, -401, and -402
2010-14-17		Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747SR, and 747SP
2010-14-19		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342 and -343, A340-211, -212, -213, -311, -312, -313, -541, and -642
2010-14-20		McCauley Propeller Systems	Propeller: 4HFR34C653/L106FA
2010-15-01		Boeing	757-200, -200CB, -200PF, 757-300, 767-200, -300, -300F, 767-400ER, 777-200 and -300

2010-10-06 Airbus: Amendment 39-16285. Docket No. FAA-2009-0790; Directorate Identifier 2008-NM-177-AD.

Effective Date

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

Affected ADs

(b) This AD supersedes AD 2007-18-04, Amendment 39-15184.

Applicability

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

(1) Airbus Model A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343 series airplanes, all serial numbers, except those on which Airbus modification 56985 has been embodied in production.

(2) Airbus Model A340-211, -212, -213, -311, -312, and -313 series airplanes; and Model A340-541 and A340-642 airplanes; all serial numbers, except those on which Airbus modification 56985 has been embodied in production.

Subject

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

Reason

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

> Uncontained APU [auxiliary power unit] generator failures on ground have occurred on Airbus A330 aircraft in service. APU generator design is common to all A330 and A340 aircraft.
>
> Preliminary investigations confirmed that these failures have resulted in structural damage to the APU compartment and, in one case, to the stabiliser compartment. Loose APU generator parts can lead to damage to the APU firewall, reducing its fire extinguishing capability and potentially leading to a temporary uncontrolled fire.

Although the root cause has not yet been determined, the investigation showed a sequence of events where a collapse of the Drive End Bearing (DEB) leads to an uncontained failure. Evidence has also shown that the DEB failures are not instantaneous, and therefore, the detection of small debris could indicate early stage of a DEB failure.

To address this subject, EASA issued Emergency AD 2007-0188-E, requiring repetitive inspections of the APU generator Scavenge filter element and filter housing and of the APU generator Drain plug for signs of small debris coming from the APU generator, allowing detection of the early stage of APU generator failure. That AD was later revised to extend the compliance time and to provide another option for the repetitive inspection.

Subsequently, another uncontained APU generator failure occurred on ground on an A330 aircraft, operated within the provisions of MMEL [master minimum equipment list] item 36-11-01, with similar structural damages as the previous APU generator burst events. The investigation of this event revealed that the inspection required by paragraph 4 of AD 2007-0188R1 before the first flight under the MMEL rectification interval had not been performed and that the APU generator had not been properly installed (two seal plates instead of one).

Consequently, EASA issued AD 2008-0017, superseding AD 2007-0188R1 and requiring the following additional actions:

–a visual inspection of the APU generator seal plate fitting,
–an inspection following MMEL item 36-11-01 or 24-22-01 rectification and
–an inspection each time a new or serviceable APU generator or APU is installed on an aircraft.

EASA issued AD 2008-0017R1 to cancel the inspection of paragraph 4 for A330 aircraft, when operated within the provisions of MMEL item 36-11-01 further to ETOPS [Extended-Range Twin-Engine Operations Performance Standards] certification of A330 APU.

Finally, Airbus has developed a secondary housing for the APU generator that is designed to contain APU generator parts in the event of an APU generator burst.

For the above described reasons, this AD retains the requirements of EASA AD 2008-0017R1, which is superseded, and adds the requirement to install a secondary housing on the APU generator. After installation of the secondary APU generator housing on an aircraft, the repetitive inspections of this AD are no longer required for that aircraft.

This AD retains the requirements of AD 2007-18-04, which superseded AD 2007-12-10, Amendment 39-15088. The new requirements include inspecting the APU generator scavenge oil filter element for contamination, the APU generator drain plug for contamination, and the APU generator scavenge filter housing for contamination, and a terminating action (installing a secondary housing line replaceable unit). Applicable corrective actions include, depending on the findings, replacing or reinstalling the APU generator scavenge oil filter and packing, replacing or reinstalling the APU generator drain plug, and replacing or reinstalling the APU generator scavenge filter housing.

RESTATEMENT OF REQUIREMENTS OF AD 2007-12-10, WITH NO CHANGES

Actions and Compliance

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

(1) For airplanes on which the date of issuance of the original French airworthiness certificate or the date of issuance of the original French or EASA export certificate of airworthiness is before March 1, 2007: Within 63 days after June 26, 2007 (the effective date of AD 2007-12-10), in accordance with the instructions of Airbus All Operators Telex (AOT) A330-24A3042, A340-24A4056, or A340-24A5020, all Revision 02, all dated April 12, 2007; as applicable, inspect the inlet screen (last chance filter) for the generator scavenge-oil pump for signs of debris and, as applicable, apply all associated corrective actions before further flight.

(2) For Model A330 aircraft operating under MMEL (master minimum equipment list) Item 24-22-01 'AC Main Generation' or MMEL Item 36-11-01 'Bleed Air Supply System Failure' and on which the date of issuance of the original French airworthiness certificate or the date of issuance of the original French or EASA export certificate of airworthiness is before March 1, 2007: As of June 26, 2007, before each flight, perform a check of the differential pressure indicator button on the lube filter and the generator scavenge filter in accordance with the instructions of Airbus AOT A330-24A3042, Revision 02, dated April 12, 2007, until accomplishment of paragraph (g)(5) of this AD.

Note 1: The repetitive checks before each flight specified in paragraph (f)(2) of this AD are not required for airplanes operated under MMEL Item 36-11-01, provided the APU generator has been removed or deactivated in accordance with the instructions of Airbus AOT A330-24A3042, Revision 02, dated April 12, 2007.

(3) Actions done before June 26, 2007, in accordance with the applicable Airbus service information in Table 1 of this AD are acceptable for compliance with the corresponding provisions of paragraph (f) of this AD.

Table 1 – Acceptable Earlier Revisions of Service Information

Airbus All Operators Telex –	Revision –	Dated –
A330-24A3042	Original	March 22, 2007
A330-24A3042	01	March 29, 2007
A340-24A4056	Original	March 22, 2007
A340-24A4056	01	March 29, 2007
A340-24A5020	Original	March 22, 2007
A340-24A5020	01	March 29, 2007

RESTATEMENT OF REQUIREMENTS OF AD 2007-18-04, WITH REVISED SERVICE INFORMATION

Actions and Compliance

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

(1) For airplanes on which the date of issuance of the original French airworthiness certificate or the date of issuance of the original French or EASA export certificate of airworthiness is on or before July 1, 2007: Within 30 days after September 14, 2007 (the effective date of AD 2007-18-04), in accordance with the instructions of paragraph 4.2.1 of the applicable Airbus service information specified in Table 2 or 3 of this AD, clean and inspect the APU generator scavenge oil filter element and housing and inspect the APU generator drain plug to detect metallic debris, and apply all applicable associated corrective actions before further flight. After the effective date of this AD, use only the service information specified in Table 3 of this AD.

Table 2 – Service Information

Airbus All Operators Telex –	Revision –	Dated –
A330-24A3044	01	July 20, 2007
A330-24A3044	02	December 20, 2007
A340-24A4057	02	August 14, 2007
A340-24A5021	01	July 20, 2007

Table 3 – New Service Information

Airbus All Operators Telex –	Revision –	Dated –
A330-24A3044	03	May 26, 2008
A340-24A4057	03	December 20, 2007
A340-24A5021	02	December 20, 2007

(2) Within 450 aircraft flight hours or 200 APU operating hours, whichever occurs later, after accomplishing the inspection required by paragraph (g)(1) of this AD, in accordance with the instructions of paragraph 4.2.2 of the applicable Airbus information specified in Table 2 or Table 3 of this AD: Inspect the APU generator scavenge oil filter element and housing and the APU generator drain plug to detect metallic debris; and apply all applicable associated corrective actions before further flight. Repeat the inspections thereafter at intervals not to exceed 450 aircraft flight hours or 200 APU operating hours, whichever occurs later until the installation required by paragraph (h)(5) of this AD is done. After the effective date of this AD, use only the service information specified in Table 3 of this AD.

(3) For airplanes on which the date of issuance of the original French airworthiness certificate or the date of issuance of the original French or EASA export certificate of airworthiness is after July 1, 2007: Within 450 aircraft flight hours or 200 APU operating hours after September 14, 2007, whichever occurs later, in accordance with the instructions of paragraph 4.2.2 of the applicable Airbus service information specified in Table 2 or Table 3 of this AD: Inspect the APU generator scavenge oil filter element and housing and the APU generator drain plug to detect metallic debris; and apply all applicable associated corrective actions before further flight. Repeat the inspections thereafter at intervals not to exceed 450 aircraft flight hours or 200 APU operating hours, whichever occurs later until the installation required by paragraph (h)(5) of this AD is done. After the effective date of this AD, use only the service information specified in Table 3 of this AD.

(4) Actions done before September 14, 2007, in accordance with the applicable Airbus service information in Table 4 of this AD are acceptable for compliance with the corresponding provisions of paragraph (g) of this AD.

Table 4 – Acceptable Earlier Revisions of Service Information

Airbus All Operators Telex –	Revision –	Dated –
A330-24A3044	Original	July 5, 2007
A340-24A4057	Original	July 5, 2007
A340-24A4057	01	July 20, 2007
A340-24A5021	Original	July 5, 2007

(5) For Model A330 aircraft operating under MMEL Item 24-22-01, "AC Main Generation," or MMEL Item 36-11-01, "Bleed Air Supply System Failure": Unless the APU generator has been deferred in accordance with the MMEL by deactivation (quill shaft removed) or removal, the inspection required by paragraph (g)(2) or (g)(3), as applicable, of this AD must be performed prior to the first flight of the specified MMEL repair time interval. Accomplishing the actions in this paragraph terminates the actions required by paragraph (f)(2) of this AD.

Note 2: For A330 aircraft, MMEL Item 24-22-01 (AC Main Generation) and/or MMEL Item 36-11-01 (Bleed Air Supply System Failure) require that the APU be used during the entire flight.

NEW REQUIREMENTS OF THIS AD

Actions and Compliance

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

(1) As of the effective date of this AD, before further flight after an APU generator or an APU is installed on the airplane: Inspect the APU generator scavenge oil filter element for contamination (including metallic particles), the APU generator drain plug for contamination (including metallic particles), and the APU generator scavenge filter housing for contamination (including metallic particles), in accordance with paragraph 4.2 of the applicable service information specified in Table 3 of this AD. Do all applicable corrective actions before further flight in accordance with paragraph 4.2 of the applicable service information specified in Table 3 of this AD.

(2) Within 450 aircraft flight hours or 200 APU operating hours, whichever occurs later, after accomplishing the inspection required by paragraph (h)(1) of this AD, do the inspection as required by paragraph (g)(2) of this AD. Doing the installation required by paragraph (h)(5) of this AD terminates the requirements of this paragraph.

(3) For Model A330 airplanes operated within the provisions of MMEL Item 24-22-01, "AC Main Generation," that are dispatched with the APU operating during the entire flight in accordance with the provisions of MMEL Item 24-22-01: Perform the inspection required by paragraph (g)(2) of this AD at the applicable time in paragraph (h)(3)(i) or (h)(3)(ii) of this AD, unless the APU generator is removed or deactivated (quill shaft removed as described in the MMEL item). Doing the installation required by paragraph (h)(5) of this AD terminates the requirements of this paragraph.

(i) Before the first flight of the MMEL rectification interval.

(ii) Before the first flight following MMEL rectification.

(4) Removing or deactivating the APU generator, or rendering the APU inoperative, in accordance with paragraph 4.3 of the applicable service information specified in Table 3 of this AD, defers the inspection required by paragraph (g)(2) of this AD. The deferred inspection must be performed before further flight after the system is reactivated. Doing the installation required by paragraph (h)(5) of this AD terminates the requirements of this paragraph.

(5) Within 6 months after the effective date of this AD, install a secondary housing line replaceable unit (LRU) over the end of the APU generator, in accordance with the Accomplishment Instructions of the applicable service information specified in Table 6 of this AD. Performing this modification terminates the repetitive inspections required by paragraphs (g)(2) and (g)(3) of this AD, and the inspections required by paragraphs (h)(2), (h)(3), and (h)(4) of this AD.

(6) Actions accomplished before the effective date of this AD in accordance with service information in Table 5 of this AD are acceptable for compliance with the corresponding actions specified in this AD.

Table 5 – Service Information Acceptable for Previous Compliance

Airbus Service Bulletin –	Dated –
A330-20-3045	June 13, 2008
A340-24-4058	June 13, 2008
A340-24-5022	June 23, 2008

FAA AD Differences

Note 3: 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, 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.

(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 EASA Airworthiness Directive 2008-0173, dated September 15, 2008, and the service information identified in Table 6 of this AD for related information.

Table 6 – Service Information Required by This AD

Airbus –	Revision –	Dated –
AOT A330-24A3042	02	April 12, 2007
AOT A330-24A3044	03	May 26, 2008
AOT A340-24A4056	02	April 12, 2007
AOT A340-24A4057	03	December 20, 2007
AOT A340-24A5020	02	April 12, 2007
AOT A340-24A5021	02	December 20, 2007
Mandatory Service Bulletin A330-24-3045	01	October 1, 2008
Mandatory Service Bulletin A340-24-4058	01	October 1, 2008
Mandatory Service Bulletin A340-24-5022	01	November 27, 2008

Material Incorporated by Reference

(k) You must use the service information contained in Table 7 of this AD, as applicable, to do the actions required by this AD, unless the AD specifies otherwise.

Table 7 – All Material Incorporated by Reference

Airbus –	Revision –	Dated –
AOT A330-24A3042	02	April 12, 2007
AOT A330-24A3044	03	May 26, 2008
AOT A340-24A4056	02	April 12, 2007
AOT A340-24A4057	03	December 20, 2007
AOT A340-24-A5020	02	April 12, 2007
AOT A340-24A5021	02	December 20, 2007
Mandatory Service Bulletin A330-24-3045	01	October 1, 2008
Mandatory Service Bulletin A340-24-4058	01	October 1, 2008
Mandatory Service Bulletin A340-24-5022	01	November 27, 2008

(The AOT document number, revision level, and date are indicated on only page 1 of these documents.)

(1) The Director of the Federal Register approved the incorporation by reference of the service information contained in Table 8 of this AD under 5 U.S.C. 552(a) and 1 CFR part 51.

Table 8 – New Material Incorporated by Reference

Airbus –	Revision –	Dated –
AOT A330-24A3044	03	May 26, 2008
AOT A340-24A4057	03	December 20, 2007
AOT A340-24A5021	02	December 20, 2007
Mandatory Service Bulletin A330-24-3045	01	October 1, 2008
Mandatory Service Bulletin A340-24-4058	01	October 1, 2008
Mandatory Service Bulletin A340-24-5022	01	November 27, 2008

(2) The Director of the Federal Register previously approved the incorporation by reference of the service information contained in Table 9 of this AD on June 26, 2007 (72 FR 31973, June 11, 2007).

Table 9 – Material Previously Incorporated by Reference

Airbus All Operators Telex –	Revision Level –	Dated –
A330-24A3042	02	April 12, 2007
A340-24A4056	02	April 12, 2007
A340-24A5020	02	April 12, 2007

(3) 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.

(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, June 23, 2010.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-14-11 Bombardier, Inc.: Amendment 39-16356. Docket No. FAA-2010-0229; Directorate Identifier 2009-NM-115-AD.

Effective Date

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

Affected ADs

(b) None.

Applicability

(c) This AD applies to Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes, having serial numbers (S/Ns) 4001, 4003, 4004, 4006, and 4008 through 4227 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 (j)(1) of this AD. The request should include a description of changes to the required inspections that will ensure the continued damage tolerance of the affected structure. The FAA has provided guidance for this determination in Advisory Circular (AC) 25.1529-1A.

Subject

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

Reason

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

> Certain main landing gear components have experienced premature failure during certification testing. Revision has been made to the DHC-8-400 Maintenance Requirements Manual, Airworthiness Limitation Items (ALI), to incorporate the revised safe life limits for the main landing gear lock actuator assembly, retraction actuator assembly rod end and piston, and the upper bearing in the main landing gear

> shock strut assembly. Failure of these components could adversely affect the structural integrity of the main landing gear.
>
> This [Canadian airworthiness] directive is issued to ensure safe operation of the main landing gear during its service life.

The corrective actions include revising the Airworthiness Limitations section (ALS) of the Instructions for Continued Airworthiness, replacing the upper bearing on certain airplanes, and replacing certain rod ends.

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 Model DHC-8-400, -401, and -402 airplanes having S/Ns 4001, 4003, 4004, 4006, and 4008 through 4210 inclusive: Do the actions specified in paragraphs (g)(1) and (g)(2) of this AD.

(1) Within 60 days after the effective date of this AD: Revise the ALS of the Instructions for Continued Airworthiness by incorporating the revised structural safe life limit for the upper bearing having part number (P/N) 46114-1, as provided in Bombardier Temporary Revision (TR), ALI-82, dated August 15, 2008, to Part 2, Airworthiness Limitation Items, of the Bombardier Dash 8 Q400 Maintenance Requirements Manual (MRM), PSM 1-84-7. The initial compliance time for replacing the upper bearing is specified in paragraph (g)(2) of this AD.

(2) Replace the upper bearing having P/N 46114-1 with a new or serviceable upper bearing, in accordance with Goodrich Dressed Shock Strut Assembly Main Landing Gear Part No. 46100-29/-31/-33/-35/-37/-39/-41/-43/-45/-47/-49/-51/-53 and -55 Component Maintenance Manual with Illustrated Parts List 32-11-03, Revision 11, dated August 22, 2008, at the applicable time specified in paragraphs (g)(2)(i), (g)(2)(ii), and (g)(2)(iii), of this AD.

(i) For airplanes having accumulated fewer than 15,000 total flight cycles as of the effective date of this AD: Replace prior to the accumulation of 15,000 total flight cycles.

(ii) For airplanes having accumulated 15,000 total flight cycles or more, but fewer than 20,000 total flight cycles, as of the effective date of this AD: Replace prior to the accumulation of 20,000 total flight cycles.

(iii) For airplanes having accumulated 20,000 total flight cycles or more as of the effective date of this AD: Replace before further flight.

(h) For Model DHC-8-400, -401, and -402 series airplanes having S/Ns 4001, 4003, 4004, 4006, and 4008 through 4227 inclusive: Do the applicable actions specified in paragraphs (h)(1) and (h)(2) of this AD.

(1) Within 60 days after the effective date of this AD: Revise the ALS of the Instructions for Continued Airworthiness to incorporate the revised safe life limits for the retraction actuator assembly rod end having P/N P3A2750 and P3A2750-1; retraction actuator assembly piston having P/N 46570-5; lock actuator cylinder assembly having P/N 46601-1/-3; and lock actuator assembly having P/N 46600-1/-3/-5/-7; as provided in Bombardier TR ALI-89, dated March 27, 2009, to Part 2, Airworthiness Limitation Items, of the Bombardier Dash 8 Q400 MRM, PSM 1-84-7. The initial compliance time for the replacement is specified in the TR, except as provided by paragraph (h)(2) of this AD.

(2) For airplanes with a main landing gear retraction actuator assembly rod end that has accumulated more than 9,850 total flight cycles as of the effective date of this AD: Within 600 flight cycles after the effective date of this AD, replace any affected rod end having P/Ns P3A2750 and P3A2750-1 with a new or serviceable rod end, in accordance with Goodrich Dressed Shock Strut Assembly Main Landing Gear Part No. 46100-29/-31/-33/-35/-37/-39/-41/-43/-45/-47/-49/-51/-53 and -55 Component Maintenance Manual with Illustrated Parts List 32-11-03, Revision 11, dated August 22, 2008.

(i) After accomplishing the revision specified in paragraph (g)(1) or (h)(1) of this AD, except as provided in paragraph (j) of this AD, no alternative replacement times may be approved for this part.

Note 2: The ALI revisions required by paragraphs (g) and (h) of this AD may be done by inserting copies of Bombardier TRs ALI-82 and ALI-89 into Part 2, Airworthiness Limitation Items, of the Bombardier Dash 8 Q400 MRM, PSM 1-84-7. When these TRs have been included in the general revision of the MRM, the general revision may be inserted into the MRM, provided the relevant information in the general revision is identical to that in Bombardier TRs ALI-82 and ALI-89.

FAA AD Differences

Note 3: This AD differs from the MCAI and/or service information as follows: The MCAI and service information do not contain replacement procedures for the upper bearings and rod ends. This AD requires replacing the upper bearings and rod ends in accordance with Goodrich Dressed Shock Strut Assembly Main Landing Gear Part No. 46100-29/-31/-33/-35/-37/-39/-41/-43/-45/-47/-49/-51/-53 and -55 Component Maintenance Manual with Illustrated Parts List 32-11-03, Revision 11, dated August 22, 2008.

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.

(4) Special Flight Permits: Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are allowed, provided that the actions required in paragraph (h) of this AD have been accomplished.

Related Information

(k) Refer to MCAI Canadian Airworthiness Directive CF-2009-17, dated April 22, 2009; Bombardier TR ALI-82, dated August 15, 2008, and Bombardier TR ALI-89, dated March 27, 2009, to Part 2, Airworthiness Limitation Items, of the Bombardier Dash 8 Q400 Maintenance Requirements Manual, PSM 1-84-7; and Goodrich Dressed Shock Strut Assembly Main Landing Gear Part No. 46100-29/-31/-33/-35/-37/-39/-41/-43/- 45/-47/-49/-51/-53 and -55 Component Maintenance Manual with Illustrated Parts List 32-11-03, Revision 11, dated August 22, 2008; for related information.

Material Incorporated by Reference

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

Table 1 – Material incorporated by reference

Service Information	Revision	Date
Bombardier Temporary Revision ALI-82 to Part 2, Airworthiness Limitation Items, of the Bombardier Dash 8 Q400 Maintenance Requirements Manual, PSM 1-84-7	Original	August 15, 2008
Bombardier Temporary Revision ALI-89 to Part 2, Airworthiness Limitation Items, of the Bombardier Dash 8 Q400 Maintenance Requirements Manual, PSM 1-84-7	Original	March 27, 2009
Goodrich Dressed Shock Strut Assembly Main Landing Gear Part No. 46100-29/-31/-33/-35/-37/-39/-41/-43/-45/ -47/-49/-51/-53 and -55 Component Maintenance Manual with Illustrated Parts List 32-11-03	11	August 22, 2008

(The revision level of Goodrich Dressed Shock Strut Assembly Main Landing Gear Part No. 46100-29/-31/-33/-35/-37/-39/- 41/-43/-45/-47/-49/-51/-53 and -55 Component Maintenance Manual with Illustrated Parts List 32-11-03, Revision 11, dated August 22, 2008, is indicated only on the Record of Revisions; no other page of this document contains this information. Page LEP-3/4 is missing from the List of Effective Pages of this document; page LEP 3/4 is dated August 22, 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 Bombardier service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; e-mail thd.qseries@aero.bombardier.com; Internet http://www.bombardier.com.

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

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

(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 June 23, 2010.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-14-13 The Boeing Company: Amendment 39-16358. Docket No. FAA-2009-1249; Directorate Identifier 2009-NM-100-AD.

Effective Date

(a) This airworthiness directive (AD) is effective August 17, 2010.

Affected Ads

(b) None.

Applicability

(c) This AD applies to The Boeing Company Model 777-200, -200LR, -300, and -300ER airplanes, certificated in any category; as identified in Boeing Service Bulletin 777-57A0064, Revision 1, dated May 6, 2010.

Subject

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

Unsafe Condition

(e) This AD results from a report of a hole in the inboard main track slat can for outboard slat number 12 on a Model 777 airplane. The Federal Aviation Administration is issuing this AD to detect and correct damage to the outboard slat main track slat cans, which can allow fuel leakage into the fixed wing leading edge in excess of the capacity of the draining system. Excess fuel leakage could result in an uncontained fire.

Compliance

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

Inspect the Slat Main Track Stop Hardware and Measure the Torque of the Slat Main Track Stop Hardware

(g) At the applicable time specified in paragraph 1.E., "Compliance," of Boeing Service Bulletin 777-57A0064, Revision 1, dated May 6, 2010, except as required by paragraph (h) of this AD: Do the applicable actions specified in paragraphs (g)(1) and (g)(2) of this AD.

(1) For all airplanes: Do a detailed inspection of the slat main track stop hardware to determine if the bolt, nut, or stops are missing and to determine if the thread protrusion of the bolt from the nut is within specified limits, and do all applicable related investigative and corrective actions, in

accordance with the Accomplishment Instructions of Boeing Service Bulletin 777-57A0064, Revision 1, dated May 6, 2010, except as required by paragraph (i) of this AD. Do all applicable related investigative and corrective actions at the applicable time specified in paragraph 1.E., "Compliance," of Boeing Service Bulletin 777-57A0064, Revision 1, dated May 6, 2010, except as required by paragraph (h) of this AD.

(2) For airplanes identified as Group 2 airplanes in Boeing Service Bulletin 777-57A0064, Revision 1, dated May 6, 2010: Do a detailed inspection of the slat cans at the outboard slat number 3 and 12 outboard main track locations for holes and wear damage and do all applicable corrective actions, and replace the downstop hardware for the outboard slats number 3 and 12 outboard and inboard main track locations, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 777-57A0064, Revision 1, dated May 6, 2010. Do all applicable corrective actions at the applicable time specified in paragraph 1.E., "Compliance," of Boeing Service Bulletin 777-57A0064, Revision 1, dated May 6, 2010.

Exception to the Service Bulletin

(h) Where Boeing Service Bulletin 777-57A0064, Revision 1, dated May 6, 2010, specifies a compliance time after the date on the service bulletin, this AD requires compliance within the specified compliance time after the effective date of this AD.

(i) Where Boeing Service Bulletin 777-57A0064, Revision 1, dated May 6, 2010, specifies measuring torque of the nuts of the slat main track stop hardware of slats 3 and 12, this AD does not require that action for Group 2 airplanes.

Credit for Actions Accomplished Previously

(j) Actions accomplished before the effective date of this AD according to Boeing Alert Service Bulletin 777-57A0064, dated March 26, 2009, are considered acceptable for compliance with the corresponding actions specified in this AD.

Alternative Methods of Compliance (AMOCs)

(k)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Duong Tran, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6452; 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.

Material Incorporated by Reference

(l) You must use Boeing Service Bulletin 777-57A0064, Revision 1, dated May 6, 2010, to do the actions required by this AD, unless the AD specifies otherwise.

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

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

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

(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 June 21, 2010.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-14-16 Bombardier, Inc.: Amendment 39-16361. Docket No. FAA-2010-0382; Directorate Identifier 2009-NM-211-AD.

Effective Date

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

Affected ADs

(b) This AD supersedes AD 2008-17-06, Amendment 39-15644.

Applicability

(c) This AD applies to Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes, certificated in any category; serial numbers 4001, 4003, 4004, 4006, and 4008 through 4184 inclusive.

Subject

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

Reason

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

> Several cases have been reported where a loss of fluid in the No.2 hydraulic system has caused the power transfer unit (PTU) to overspeed, resulting in pressure fluctuations and increased fluid flow within the No. 1 hydraulic system. In one case, the hydraulic system control logic did not shut down the PTU and the overspeed condition persisted, resulting in the illumination of the No. 1 HYD FLUID HOT caution light.
>
> As an interim action to avoid possible loss of both the No. 1 and No. 2 hydraulic systems, the Airplane Flight Manual (AFM) has been revised to include pulling the HYD PWR XFER circuit breaker in the event of the loss of all hydraulic fluid in the No. 2 hydraulic system.
>
> Insertion of the resultant Temporary Amendment (TA) No. 13 into the AFM was mandated in the original issue of this [Canadian] directive. This instruction * * * remains in effect until * * * this [revised] directive is accomplished.

> Revision 1 of this directive * * * mandates modification of the PTU control logic, including the provision of automatic PTU shutdown in the event of loss of fluid in the No. 2 hydraulic system. In addition, the applicability of the [Canadian] directive has been revised to remove aircraft Serial Number (SN) 4185 and subsequent, since an equivalent modification has been installed in production on these aircraft.

The unsafe condition is possible loss of both the No. 1 and No. 2 hydraulic systems, resulting in the potential loss of several functions essential for safe flight and landing 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 2007-12-03 AIRPLANE FLIGHT MANUAL (AFM) REVISION

(g) Within 14 days after July 10, 2007 (the effective date of AD 2007-12-03, Amendment 39-15081, which was superseded by AD 2008-17-06), revise the Limitations section of the applicable AFM to include the information in the applicable Bombardier temporary amendment specified in Table 1 of this AD, as specified in the temporary amendment. These temporary amendments introduce procedures for pulling the "HYD PWR XFER" circuit breaker in the event of the loss of all hydraulic fluid in the No. 1 or No. 2 hydraulic system. Operate the airplane according to the limitations and procedures in the applicable temporary amendment.

Table 1 - AFM Temporary Amendments

For Model -	Use Bombardier Temporary Amendment -	Issue -	Dated -	To Bombardier Dash 8 Q400 Airplane Flight Manual -
DHC-8-400 airplanes	13	1	July 14, 2005	PSM 1-84-1A
DHC-8-401 airplanes	13	1	July 14, 2005	PSM 1-84-1A
DHC-8-402 airplanes	13	1	July 14, 2005	PSM 1-84-1A

Note 1: This may be done by inserting a copy of the applicable temporary amendment into the applicable AFM. When the applicable temporary amendment has been included in general revisions of the AFM, the general revisions may be inserted into the AFM, provided the relevant information in the general revisions is identical to that in the temporary amendment.

Restatement of Requirements of AD 2008-17-06: AFM Revision

(h) Within 14 days after September 2, 2008 (the effective date of AD 2008-17-06), revise the applicable AFM Normal and Abnormal Procedures section to include the information in the applicable Bombardier temporary amendment specified in Table 2 of this AD, as specified in the temporary amendment. These temporary amendments introduce additional procedures for ensuring that the "PTU CNTRL" switch is Normal, the "PTU CNTRL ON" advisory light is out, and the "HYD

PWR XFER" circuit breaker is pulled in the event of the illumination of the "2 HYD ISO VALVE" caution light. After accomplishing the AFM revision, the AFM limitation required by paragraph (g) in this AD may be removed from the AFM.

Table 2 - AFM Temporary Amendments

For Model -	Use Bombardier Temporary Amendment -	Issue -	Dated -	To Bombardier Dash 8 Q400 Airplane Flight Manual -
DHC-8-400 airplanes	13	3	June 9, 2008	PSM 1-84-1A
DHC-8-401 airplanes	13	3	June 9, 2008	PSM 1-84-1A
DHC-8-402 airplanes	13	3	June 9, 2008	PSM 1-84-1A

New Requirements of This AD: Actions

(i) Within 6,000 flight hours after the effective date of this AD, modify the PTU control logic, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-29-22, Revision A, dated February 24, 2009. Doing this modification terminates the requirements of paragraphs (g) and (h) of this AD, and after the modification has been done, the AFM limitation required by paragraphs (g) and (h) of this AD may be removed from the AFM.

(j) Modifying the PTU control logic is also acceptable for compliance with the requirements of paragraph (i) of this AD if done before the effective date of this AD, in accordance with Bombardier Service Bulletin 84-29-22, dated December 5, 2008.

FAA AD Differences

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

Other FAA AD Provisions

(k) 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

(l) Refer to MCAI Canadian Airworthiness Directive CF-2006-08R1, dated August 31, 2009; the Bombardier temporary amendments specified in Tables 1 and 2; and Bombardier Service Bulletin 84-29-22, Revision A, dated February 24, 2009; for related information.

Material Incorporated by Reference

(m) You must use Bombardier Service Bulletin 84-29-22, Revision A, dated February 24, 2009, and the applicable temporary amendment identified in Table 3 of this AD; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

Table 3 – All temporary amendments incorporated by reference

Bombardier Temporary Amendment –	Issue –	Dated –	To Bombardier Dash 8 Q400 Airplane Flight Manual –
13	1	July 14, 2005	Model 400 PSM 1-84-1A
13	1	July 14, 2005	Model 401 PSM 1-84-1A
13	1	July 14, 2005	Model 402 PSM 1-84-1A
13	3	June 9, 2008	Model 400 PSM 1-84-1A
13	3	June 9, 2008	Model 401 PSM 1-84-1A
13	3	June 9, 2008	Model 402 PSM 1-84-1A

(1) The Director of the Federal Register approved the incorporation by reference of Bombardier Service Bulletin 84-29-22, Revision A, dated February 24, 2009, under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The Director of the Federal Register previously approved the incorporation by reference of the service information contained in Table 4 of this AD on September 2, 2008 (73 FR 47818, August 15, 2008).

Table 4 – Material previously incorporated by reference in AD 2008-17-06

Bombardier Temporary Amendment–	Issue –	Dated –	To Bombardier Dash 8 Q400 Airplane Flight Manual –
13	3	June 9, 2008	Model 400 PSM 1-84-1A
13	3	June 9, 2008	Model 401 PSM 1-84-1A
13	3	June 9, 2008	Model 402 PSM 1-84-1A

(3) On July 10, 2007 (72 FR 30968, June 5, 2007), the Director of the Federal Register approved the incorporation by reference of the temporary amendments identified in Table 5 of this AD.

Table 5 – Material previously incorporated by reference in AD 2007-12-03

Bombardier Temporary Amendment–	Issue –	Dated –	To Bombardier Dash 8 Q400 Airplane Flight Manual –
13	1	July 14, 2005	Model 400 PSM 1-84-1A
13	1	July 14, 2005	Model 401 PSM 1-84-1A
13	1	July 14, 2005	Model 402 PSM 1-84-1A

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

(5) 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.

(6) 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 June 25, 2010.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-14-17 The Boeing Company: Amendment 39-16362. Docket No. FAA-2010-0383; Directorate Identifier 2009-NM-214-AD.

Effective Date

(a) This airworthiness directive (AD) is effective August 17, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to The Boeing Company Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747SR, and 747SP series airplanes, certificated in any category; as identified in Boeing Alert Service Bulletin 747-53A2750, dated August 27, 2009.

Subject

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

Unsafe Condition

(e) This AD results from reports of cracks in overwing intercostal webs between station (STA) 1160 and STA 1220. The Federal Aviation Administration is issuing this AD to detect and correct such cracking, which could grow and result in a severed intercostal. If an intercostal is severed, cracks could develop in the adjacent frame structure and skin, resulting in a rapid loss of cabin pressure.

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.

Repetitive Inspections of the Overwing Intercostal Web

(g) Before the accumulation of 8,000 total flight cycles, or within 1,500 flight cycles after the effective date of this AD, whichever occurs later: Do a detailed inspection of the left-side and right-side STAs 1160, 1180, 1200, and 1220 overwing intercostal webs, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2750, dated August 27, 2009, except as required by paragraph (i) of this AD. Do all applicable related investigative and corrective actions before further flight. If no

cracking is found during any detailed inspection, repeat the inspection thereafter at intervals not to exceed 3,000 flight cycles.

(h) For any airplane with an overwing intercostal web replaced in accordance with Boeing Alert Service Bulletin 747-53A2750, dated August 27, 2009: Within 6,000 flight cycles after the web was replaced, do a detailed inspection of the replacement overwing intercostal web, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2750, dated August 27, 2009, except as required by paragraph (i) of this AD. Do all applicable related investigative and corrective actions before further flight. If no cracking is found during any detailed inspection, repeat the inspection thereafter at intervals not to exceed 3,000 flight cycles.

Exception to Service Bulletin

(i) If any cracking is found during any inspection required by this AD, and Boeing Alert Service Bulletin 747-53A2750, dated August 27, 2009, specifies contacting Boeing for appropriate action: Before further flight, repair the cracking using a method approved in accordance with the procedures provided in paragraph (j) of this AD.

Alternative Methods of Compliance (AMOCs)

(j)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to Attn: Ivan Li, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6437; fax (425) 917-6590. Information may be e-mailed 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 that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

Material Incorporated by Reference

(k) You must use Boeing Alert Service Bulletin 747-53A2750, dated August 27, 2009, to do the actions required by this AD, unless the AD specifies otherwise.

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

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

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

(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 June 25, 2010.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-14-19 Airbus: Amendment 39-16364. Docket No. FAA-2009-1215; Directorate Identifier 2009-NM-126-AD.

Effective Date

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

Affected ADs

(b) None.

Applicability

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

(1) Airbus Model A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342 and -343 airplanes, all serial numbers, except those on which Airbus modification 55590 has been embodied in production.

(2) Airbus Model A340-211, -212, -213, -311, -312, -313, -541, and -642 airplanes, all serial numbers fitted with lower deck cargo compartment (LDCC), except those on which Airbus modification 55590 has been embodied in production.

(3) Airbus Model A340-311, -312, -313, -541, and -642 airplanes, all serial numbers fitted with bulk cargo rest compartment (BCRC), except those on which Airbus modification 56047 has been embodied in production.

Note 1: The BCRC is embodied in production on Model A340-300, A340-500, and A340-600 airplanes through the following Airbus modification (including but not limited to): 47198, 47884, 48895, 48710, 49136, 50107, 50900, 50901, or 51320.

Note 2: The fire extinguishing system for the BCRC is embodied in production on Model A340-500 and A340-600 airplanes through Mod 47197 (partial BCRC); on Model A340-500 and A340-600 airplanes through Mod 47883 (full BCRC); and on Model A340-300 airplanes through Mod 50108 (partial BCRC).

Subject

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

Reason

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

> During the qualification test campaign at the supplier site of the prototype Flow Metering Compact Unit (FMCU) Part Number (P/N) QA07907-03, partial blockage of the water absorbing filter element P/N QA06123 was observed several times. The blockage was created by carbon debris from the cartridge and from the burst disc of the Halon bottle.
>
> This water absorbing filter element is part of Halon Dual-Filter Assembly installed also in the Flow Metering System (FMS) of the cargo compartment Fire Extinguishing System used in the A330 and A340 aeroplanes.
>
> Blockage of the water absorbing filter element could lead to reduction of Halon outflow, leading to incapacity to maintain fire extinguishing agent concentration. Combined with fire, this could result in an uncontrolled fire in the affected compartment, which would constitute an unsafe condition.
>
> To avoid water absorbing filter element blockage, this AD requires replacement [with improved dual-filter assemblies] or modification of the Halon dual-filter assemblies of the lower deck cargo compartment fire extinguishing system:
>
> –In the forward cargo compartment for aeroplanes fitted with Lower Deck Cargo Compartment (LDCC) and
> –In the bulk cargo compartment for aeroplanes fitted with Bulk Cargo Rest Compartment (BCRC) fire extinguishing system.

Actions and Compliance

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

(1) Replace or modify the Halon dual-filter assemblies of the flow metering fire extinguishing system in the forward and bulk cargo compartments, as applicable, in accordance with the Accomplishment Instructions of the applicable service bulletin identified in Table 1 of this AD, at the applicable time specified in paragraphs (f)(1)(i), (f)(1)(ii), and (f)(1)(iii) of this AD.

Table 1–Service Bulletins

Airbus mandatory Airbus model	Service Bulletin–	Revision–	Dated–
A330-200 and -300 airplanes	A330-26-3040	03	November 9, 2009.
A340-200 and -300 airplanes	A340-26-4038	03	November 9, 2009.
A340-500 and -600 airplanes	A340-26-5019	04	December 11, 2009.

(i) For airplanes fitted with Halon dual-filter assemblies part number (P/N) QA06753: Within 18 months after the effective date of this AD.

(ii) For Model A340-642 series airplanes, weight variant 101, 102, and 103 fitted with Halon dual-filter assembly P/N QA06753-01 or P/N QA06753-02: Within 18 months after the effective date of this AD.

(iii) For airplanes other than those identified in paragraph (f)(1)(ii) of this AD and fitted with Halon dual-filter assembly P/N QA06753-01 or P/N QA06753-02: Within 24 months after the effective date of this AD.

Note 3: The Halon dual-filter assembly P/N QA06753 is embodied in production through Airbus modification 40041. The Halon dual-filter assembly P/N QA06753-01 is only embodied in service through Airbus Service Bulletin A330-26-3030 or Airbus Service Bulletin A340-26-4038. The Halon dual-filter assembly P/N QA06753-02 is embodied in production through modification 47197 or 47883 or 50108 (BCRC) and 51065 or 51329 (LDCC) or in service through Airbus Service Bulletin A330-26-3030 or Airbus Service Bulletin A340-26-4038.

(2) Actions accomplished before the effective date of this AD according to the service bulletins listed in Table 2 of this AD are considered acceptable for compliance with the corresponding actions specified in this AD.

Table 2–Credit Service Bulletins

Airbus–	**Revision–**	**Dated–**
Mandatory Service Bulletin A330-26-3040	02	August 6, 2008.
Mandatory Service Bulletin A340-26-5019	02	August 6, 2008.
Mandatory Service Bulletin A340-26-5019	03	May 19, 2009.
Service Bulletin A330-26-3040	Original	March 29, 2007.
Service Bulletin A330-26-3040	01	December 19, 2007.
Service Bulletin A340-26-4038	Original	March 29, 2007.
Service Bulletin A340-26-4038	01	December 19, 2007.
Service Bulletin A340-26-4038	02	August 6, 2008.
Service Bulletin A340-26-5019	Original	July 27, 2007.
Service Bulletin A340-26-5019	01	January 23, 2008.

FAA AD Differences

Note 4: This AD differs from the MCAI and/or service information as follows:

(1) The second paragraph of the applicability of the MCAI specifies certain models except those on which Modification 55590 has been done. Paragraph (c)(2) of this AD specifies those models fitted with lower deck cargo compartment (LDCC), except those on which Modification 55590 has been done.

(2) Although the MCAI tells you to submit information to the manufacturer, this AD does not require such a submittal.

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.

Related Information

(h) Refer to MCAI European Aviation Safety Agency Airworthiness Directive 2009-0064, dated March 12, 2009, and the service information identified in Table 3 of this AD, for related information.

Table 3–Related Service Information

Airbus mandatory service bulletin–	Revision–	Dated–
A330-26-3040	03	November 9, 2009.
A340-26-4038	03	November 9, 2009.
A340-26-5019	04	December 11, 2009.

Material Incorporated by Reference

(i) You must use the service information contained in Table 4 of this AD to do the actions required by this AD, unless the AD specifies otherwise.

Table 4–Material Incorporated by Reference

Airbus mandatory service bulletin–	Revision–	Dated–
A330-26-3040	03	November 9, 2009.
A340-26-4038	03	November 9, 2009.
A340-26-5019	04	December 11, 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 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 June 29, 2010.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2010-14-20 McCauley Propeller Systems: Amendment 39-16365. Docket No. FAA-2007-29176; Directorate Identifier 2007-NE-38-AD.

Effective Date

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

Affected ADs

(b) None.

Applicability

(c) This AD applies to McCauley Propeller Systems model 4HFR34C653/L106FA propellers.

Unsafe Condition

(d) This AD results from reports of 10 hubs found cracked during propeller overhaul. We are issuing this AD to prevent failure of the propeller hub, which could cause blade separation, damage to the airplane, and loss of control of the airplane.

Compliance

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

(f) For propeller hubs with 6,000 or more operating hours time-since-new (TSN) on the effective date of this AD, perform the procedures in paragraphs (h) through (k) of this AD within 100 operating hours time-in-service after the effective date of this AD.

(g) For propeller hubs with fewer than 6,000 operating hours TSN on the effective date of this AD, perform the procedures in paragraphs (h) through (k) of this AD before the propeller hub reaches 6,100 operating hours TSN.

Onetime Propeller Hub Inspection

(h) Remove and disassemble the propeller, and etch the propeller hub, using paragraphs 1.A. through 2.D. of the Accomplishment Instructions of McCauley Propeller Systems Alert Service Bulletin No. ASB254, dated August 20, 2007.

(i) Perform a onetime fluorescent penetrant inspection (FPI) of the propeller hub, using paragraphs 3.A through 3.G. of the Accomplishment Instructions of McCauley Propeller Systems Alert Service Bulletin No. ASB254, dated August 20, 2007.

(j) For hubs that pass the FPI, perform a onetime eddy current inspection of the propeller hub, using paragraphs 4.A. through 4.F. of the Accomplishment Instructions of McCauley Propeller Systems Alert Service Bulletin No. ASB254, dated August 20, 2007.

(k) Remove cracked hubs from service and any other propeller parts found cracked.

Previous Credit

(l) If you performed the onetime inspection of the propeller hub using McCauley Propeller Systems Service Bulletin No. SB238A, or Alert Service Bulletin ASB254, both dated August 20, 2007, before the effective date of this AD, you have satisfied the inspection requirements of this AD.

Interim Action

(m) These actions are interim actions and we may take further rulemaking actions in the future.

Alternative Methods of Compliance

(n) The Manager, Wichita Aircraft 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.

Special Flight Permits

(o) Under 14 CFR part 39.23, we are limiting the special flight permits for this AD as follows:

(1) The propeller must have no signs of external oil leakage from the hub; and

(2) The propeller has no current reports of abnormal operation or vibration.

Related Information

(p) Contact Jeff Janusz, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, Small Airplane Directorate, 1801 Airport Road, Wichita, KS 67209; e-mail: jeff.janusz@faa.gov; telephone (316) 946-4148; fax: (316) 946-4107, for more information about this AD.

Material Incorporated by Reference

(q) You must use McCauley Propeller Systems, Service Bulletin No. ASB254, dated August 20, 2007, to perform the inspections 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 McCauley Propeller Systems, P.O. Box 7704, Wichita, KS 67277-7704; telephone (800) 621-7767, 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 July 1, 2010.

Francis A. Favara,

Manager, Engine and Propeller Directorate,

Aircraft Certification Service.

2010-15-01 The Boeing Company: Amendment 39-16367. Docket No. FAA-2008-0274; Directorate Identifier 2008-NM-038-AD.

Effective Date

(a) This airworthiness directive (AD) is effective August 17, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to the airplanes identified in Table 1 of this AD, certificated in any category.

Table 1–Airplanes Affected by This AD

The Boeing Company Model –	As identified in Boeing Special Attention Service Bulletin –
757-200, -200CB, and -200PF series airplanes	757-30-0019, Revision 2, dated April 19, 2010
757-300 series airplanes	757-30-0020, Revision 2, dated March 31, 2010
767-200, -300, and -300F series airplanes	767-30-0039, dated December 5, 2007
767-400ER series airplanes	767-30-0041, dated December 5, 2007
777-200 and -300 series airplanes	777-30-0012, Revision 2, dated December 19, 2007

Unsafe Condition

(d) This AD results from several reports of electrical arcs at the terminal blocks of the electrically heated flightdeck window 1. We are issuing this AD to prevent smoke and fire in the cockpit, which could lead to loss of visibility, and injuries to or incapacitation of the flightcrew.

Compliance

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

Inspection and Corrective Actions

(f) Within 500 flight hours after the effective date of this AD, do a detailed inspection for damage (including arcing, loose terminal, or heat damage) of the electrical terminal (J5 terminal) at

the left and right flightdeck window 1, and do all applicable corrective actions, by accomplishing all the actions for the J5 terminal specified in Work Packages 1 and 2 of the applicable service bulletin specified in Table 1 of this AD, except as provided by paragraph (h) of this AD. Except as provided by paragraph (h) of this AD, do all applicable corrective actions before further flight. Except as provided by paragraph (g) of this AD, repeat the detailed inspection at the applicable interval specified in paragraph (f)(1) or (f)(2) of this AD. Doing the replacement specified in paragraph (i) of this AD terminates the repetitive inspection requirements of this paragraph for the replaced flightdeck window 1.

(1) For flightdeck windows manufactured by GKN with SCREW/LUG electrical connections, repeat the detailed inspection thereafter at intervals not to exceed 12,000 flight hours or 48 months, whichever occurs later.

(2) For flightdeck windows manufactured by PPG with SCREW/LUG electrical connections, repeat the detailed inspection thereafter at intervals not to exceed 6,000 flight hours or 24 months, whichever occurs later.

(g) For airplanes on which replacement with a new window 1 that uses screws and lugs for the electrical connections is done in accordance with Work Package 1 or 2 of the applicable service bulletin specified in Table 1 of this AD: Do the next detailed inspection within 500 flight hours after the corrective action, and repeat the inspection thereafter at the applicable interval specified in paragraph (g)(1) or (g)(2) of this AD. Doing the replacement specified in paragraph (i) of this AD terminates the repetitive inspection requirements of this paragraph for the replaced flightdeck window 1.

(1) For flightdeck windows manufactured by GKN with SCREW/LUG electrical connections, repeat the detailed inspection thereafter at intervals not to exceed 12,000 flight hours or 48 months, whichever occurs later.

(2) For flightdeck windows manufactured by PPG with SCREW/LUG electrical connections, repeat the detailed inspection thereafter at intervals not to exceed 6,000 flight hours or 24 months, whichever occurs later.

Exceptions

(h) Do the applicable actions specified in paragraph (f) of this AD except as provided by paragraphs (h)(1) and (h)(2) of this AD.

(1) If, during the inspection required by paragraph (f) of this AD, the screw is cross threaded and the terminal lug is tight, do the applicable corrective action within 150 days or 500 flight hours after the inspection, whichever occurs first.

(2) Where paragraph 1.E. of Boeing Special Attention Service Bulletin 757-30-0020, Revision 2, dated March 31, 2010, and Boeing Special Attention Service Bulletin 757-30-0019, Revision 2, dated April 19, 2010, states in the "Action" column to (for example) " * * * replace windshield in accordance with Work Package 1, step 3. and Work Package 2, step 3," the intent of the applicable service bulletin is to state, " * * * Work Package 1, step 3. or Work Package 2, as applicable * * *." Operators are to use one or the other (or both) work instruction, as applicable, to replace the window(s) that need replacing.

Optional Terminating Action

(i) Replacing a flightdeck window 1 that uses screws and lugs for the electrical connections with a flightdeck window that uses pins and sockets for the electrical connections in accordance with

Work Packages 3 or 4 of the applicable service bulletin specified in Table 1 of this AD ends the repetitive inspection requirements of this AD for that window 1.

Credit for Actions Accomplished Previously

(j) Actions done before the effective date of this AD in accordance with the applicable service bulletin specified in Table 2 of this AD are acceptable for compliance with the corresponding requirements of this AD.

Table 2–Acceptable Service Bulletins

Boeing Special Attention Service Bulletin -	Revision -	Dated -
757-30-0019	Original	July 19, 2006
757-30-0019	1	December 19, 2007
757-30-0020	Original	July 19, 2006
757-30-0020	1	December 19, 2007
777-30-0012	Original	April 15, 2004
777-30-0012	1	June 2, 2006

Alternative Methods of Compliance (AMOCs)

(k)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Louis Natsiopoulos, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 917-6478; fax (425) 917-6590. Information may be e-mailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

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

Material Incorporated by Reference

(l) You must use the applicable service information contained in Table 3 of this AD to do the actions required by this AD, unless the AD specifies otherwise. If you accomplish the optional actions specified by this AD, you must use the applicable service information specified in Table 3 of this AD to perform 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 service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1, fax 206-766-5680; e-mail me.boecom@boeing.com; Internet https://www.myboeingfleet.com.

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

(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

Boeing Special Attention Service Bulletin -	Revision -	Dated -
757-30-0019	2	April 19, 2010
757-30-0020	2	March 31, 2010
767-30-0039	Original	December 5, 2007
767-30-0041	Original	December 5, 2007
777-30-0012	2	December 19, 2007

Issued in Renton, Washington, on July 6, 2010.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.