



**FEDERAL AVIATION ADMINISTRATION  
AIRWORTHINESS DIRECTIVES  
LARGE AIRCRAFT**

**BIWEEKLY 2010-21**

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## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
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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

## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
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<b>Biweekly 2010-03</b>			
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
<b>Biweekly 2010-04</b>			
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
<b>Biweekly 2010-05</b>			
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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Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
<b>Biweekly 2010-06</b>			
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	Propeller: 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
<b>Biweekly 2010-07</b>			
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, 767-200, -300, -300F, and -400ER
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
<b>Biweekly 2010-08</b>			
2010-06-10		Boeing	767-200, -300, and -300F
2010-06-14		Rolls-Royce plc	Engine: 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		Airbus	A300 B2-1C, B2K-3C, B2-203, B4-2C, B4-103, and B4-20

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<b>Biweekly 2010-09</b>			
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 2010-08-05	S 2009-04-11	Bombardier, Inc. Airbus	CL-600-2B19 (Regional Jet Series 100 & 440) 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
<b>Biweekly 2010-10</b>			
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

## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
<b>Biweekly 2010-11</b>			
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
<b>Biweekly 2010-12</b>			
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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<b>Biweekly 2010-13</b>			
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
<b>Biweekly 2010-14</b>			
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			
<b>Biweekly 2010-15</b>			
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
<b>Biweekly 2010-16</b>			
2010-14-14	S 2007-16-09	Embraer	Model ERJ 170-100 LR, -100 STD, -100 SE, and -100 SU airplanes; and Model ERJ 170-200 LR, -200 STD, and -200 SU, ERJ 190-100 ECJ, -100 LR, -100 IGW, -100 STD airplanes; and Model ERJ 190-200 STD, -200 LR, and -200 IGW
2010-14-18	S 2005-19-23	Boeing	767-200, -300, and -300F
2010-15-02		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343 series airplanes, A340-211, -212, -213, -311, -312, and -313 series airplanes, and A340-541 and -642
2010-15-08	S 2003-24-08	Boeing	737-100, -200, -200C, -300, -400, and -500
<b>Biweekly 2010-17</b>			
2009-15-16 R1	R	McDonnell Douglas	DC-9-11, DC-9-12, DC-9-13, DC-9-14, DC-9-15, and DC-9-15F airplanes, Model DC-9-31, DC-9-32, DC-9-32 (VC-9C), DC-9-32F, DC-9-33F, DC-9-34, DC-9-34F, and DC-9-32F (C-9A, C-9B) airplanes, Model DC-9-81 (MD-81) airplanes, Model DC-9-82 (MD-82) airplanes, Model DC-9-83 (MD-83) airplanes, Model DC-9-87 (MD-87) airplanes, Model MD-88 airplanes, and Model MD-90-30
2010-14-19	COR	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, A340-311, -312, -313, -541, and -642
2010-16-01	S 2008-13-14	Embraer	EMB-135ER, -135KE, -135KL, and -135LR airplanes, and Model EMB-145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP
2010-16-02		Embraer	EMB-135BJ, -135ER, -135KE, -135KL, and -135LR airplanes; and Model EMB-145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP
2010-16-03		McDonnell Douglas	MD-11 and MD-11F
2010-16-04		Boeing	767-200, -300 and -300F
2010-16-05		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
2010-16-06		Boeing	737-300, -400, and -500, 737-600, -700, and -800
2010-16-07		Rolls-Royce plc	Engine: RB211-Trent 970-84, 970B-84, 972-84, 972B-84, 977-84, 977B-84, and 980-84
2010-16-09		BAE Systems	BAe 146-100A and -200A
2010-16-10		BAE Systems	BAe 146-100A, -200A, and -300A airplanes, and Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2010-16-12		Boeing	777-200LR and -300ER
2010-16-13		Airbus	A300 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

# LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
<b>Biweekly 2010-18</b>			
2010-16-11		McDonnell Douglas Corporation	MD-90-30
2010-17-01		Pratt & Whitney Canada Corp	Engine: PW617F-E
2010-17-02		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343 A340-211, -212, -213, -311, -312, -313, A340-541 and -642
2010-17-03		Boeing	767-300
2010-17-04		Airbus	A380-841, -842, and -861
2010-17-05		Boeing	737-600, -700, -700C, -800, and -900
2010-17-07		Airbus	A330-223, -321, -322, and -323
2010-17-10		Rolls-Royce plc	Engine: RB211-22B series and RB211-524B4-D-02, RB211-524D4-19, RB211-524D4-39, RB211-524D4-B-19, RB211-524D4-B-39, RB211-524D4X-19, and RB211-524D4X-B-19
2010-17-11		Dowty Propellers	Propeller: R408/6-123-F/17
2010-17-12	S 2009-22-01	Rolls-Royce Deutschland Ltd & Co KG	Engine: Tay 650-15, Tay 651-54
2010-17-13		Rolls-Royce plc	Engine: RB211-524C2-19 and RB211-524C2-B-19
2010-17-17		Bombardier, Inc	CL-600-2B19 (Regional Jet Series 100 & 440)
2010-17-19	S 2010-09-05	Boeing	737-600, -700, -700C, -800, -900, and -900ER
2010-18-01		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, and -100 SU, ERJ 170-200 LR, -200 SU, and -200 STD, ERJ 190-100 STD, -100 LR, -100 ECJ, and -100 IGW, ERJ 190-200 STD, -200 LR, and -200 IGW
2010-18-03		Dassault	Falcon 7X
2010-18-04		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, -100 SU, -200 LR, -200 STD, and -200 SU, ERJ 190-100 LR, -100 IGW, -100 STD, -200 STD, -200 LR, and -200 IGW
2010-18-07		Airbus	A318-111, -112, -121, and -122, A319-111, -112, -113, -114, -115, -131, -132, and -133, A320-111, -211, -212, -214, -231, -232, and -233, A321-111, -112, -131, -211, -212, -213, -231, and -232
2010-18-09		Pratt & Whitney Canada	PW530A, PW545A, and PW545B
<b>Biweekly 2010-19</b>			
2010-17-14		Boeing	737-100 and -200
2010-18-08	S 2009-10-10	Bombardier, Inc.	CL-600-2C10 (Regional Jet Series 700, 701, & 702)
2010-18-10		BAE Systems	BAe 146-100A, -200A, and -300A series airplanes and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2010-18-11		Bombardier, Inc.	CL-600-2C10 (Regional Jet Series 700, 701, & 702); Model CL-600-2D15 (Regional Jet Series 705); and Model CL-600-2D24 (Regional Jet Series 900)
<b>Biweekly 2010-20</b>			
2010-18-13		Pratt & Whitney	PW4052, PW4056, PW4060, PW4062, PW4062A, PW4074, PW4077, PW4077D, PW4084D, PW4090, PW4090-3, PW4152, PW4156A, PW4158, PW4164, PW4168, PW4168A, PW4460, and PW4462
2010-19-01	S 2009-08-51	Rolls-Royce Corporation	Engine: AE 3007A
2010-19-02		Bombardier	DHC-8-201, -202, -301, -311, and -315
2010-19-03		Boeing	737-700(IGW)
2010-19-04		Embraer	EMB-120, -120ER, -120FC, -120QC, and -120RT
2010-20-04		Gulfstream Aerospace LP	Galaxy and Gulfstream 200
2010-20-11		Rolls-Royce plc	Engine: RB211 Trent 768-60, 772-60, 772B-60, 875-17, 877-17, 884-17, 884B-17, 892-17, 892B-17, and 895-17

## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
<b>Biweekly 2010-21</b>			
2009-19-06		Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200F, 747-300, 747-400, 747-400D, 747SP, and 747SR series
2010-20-03		Bombardier	CL-600-2B16 (CL-604 Variant)
2010-20-07		International Aero Engines AG	Engine: AG (IAE) V2500-A1, IAE V2525-D5, V2528-D5, IAE V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, and V2533-A5
2010-20-08	S 2001-16-02	Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, and 747SR series
2010-20-09		Bombardier	CL-600-2B19 (Regional Jet Series 100 & 440); 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)
2010-20-10	S 2006-23-05	Cessna	750
2010-20-12		Boeing	747-400, 747-400D, and 747-400F series
2010-20-13		McDonnell Douglas	DC-10-30, DC-10-30F, DC-10-30F (KC-10A and KDC-10), DC-10-40, DC-10-40F, and MD-10-30F
2010-20-14		McDonnell Douglas	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
2010-20-15		Bombardier	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705), and CL-600-2D24 (Regional Jet Series 900)
2010-20-16		Airbus	A300 B2-1A, B2-1C, B4-2C, B2K-3C, B4-103, B2-203, B4-203; A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, C4-605R Variant F; A310-203, -204, -221, -222, -304, -322, -324, and -325
2010-20-17	S 2004-22-08	Bombardier	CL-600-2B19 (Regional Jet Series 100 & 440)
2010-20-19		Bombardier	CL-600-2B19 (Regional Jet Series 100 & 440), CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705), and CL-600-2D24 (Regional Jet Series 900)
2010-20-22		Rolls-Royce Deutschland	Tay 620-15, Tay 650-15, and Tay 651-54
2010-21-02		Bombardier	DHC-8-101, -102, -103, -106, -201, -202, -301, -311, -315, DHC-8-400, -401, -402
2010-21-03	S 2008-09-04	McDonnell Douglas	DC-8-31, DC-8-32, DC-8-33, DC-8-41, DC-8-42, DC-8-43; DC-8-51, DC-8-52, DC-8-53, DC-8-55; DC-8F-54, DC-8F-55; DC-8-61, DC-8-62, DC-8-63; DC-8-61F, DC-8-62F, DC-8-63F; DC-8-71, DC-8-72, DC-8-73; DC-8-71F, DC-8-72F, and DC-8-73F
2010-21-04	S 90-15-06	Boeing	747-100, 747-200B, and 747-200F series
	S 94-12-09		
2010-21-05	S 2008-13-02	BAE Systems	4101
2010-21-06		Airbus	A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R; A300 C4-605R Variant F; A300 F4-605R and F4-622R
2010-21-17		Pratt & Whitney	JT8D-9, -9A, -11, -15, -17, and -17R



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**2009-19-06 The Boeing Company:** Amendment 39-16460. Docket No. FAA-2010-0950; Directorate Identifier 2009-NM-194-AD.

**Effective Date**

(a) This AD becomes effective October 12, 2010, to all persons except those persons to whom it was made immediately effective by AD 2009-19-06, issued on September 9, 2009, which contained the requirements of this amendment.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Boeing Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200F, 747-300, 747-400, 747-400D, 747SP, and 747SR series airplanes, certificated in any category; as identified in Boeing Service Bulletin 747-52-2293, dated September 4, 2009.

**Subject**

(d) Air Transport Association (ATA) of America Code 52: Doors.

**Unsafe Condition**

(e) This AD was prompted by reports that the current design of the flight deck door is defective. We are issuing this AD to prevent failure of this equipment, which could jeopardize flight safety.

**Compliance**

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

**Door Equipment Installation**

(g) Within 30 days after the effective date of this AD, install certain equipment associated with the flight deck door, in accordance with Boeing Service Bulletin 747-52-2293, dated September 4, 2009.

**Alternative Methods of Compliance (AMOCs)**

(h)(1) The Manager, Seattle Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to Robert Kaufman, Aerospace Engineer, Cabin Safety and Environmental Systems Branch, ANM-150S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington

98057-3356; telephone (425) 917-6433; 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 refer to this AD.

### **Incorporation by Reference**

(i) You must use Boeing Service Bulletin 747-52-2293, dated September 4, 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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on September 23, 2010.

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



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**2010-20-03 Bombardier, Inc.:** Amendment 39-16437. Docket No. FAA-2010-0439; Directorate Identifier 2010-NM-029-AD.

**Effective Date**

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

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to Bombardier, Inc. Model CL-600-2B16 (CL-604 Variant) airplanes; certificated in any category; serial numbers (S/N) 5408 and subsequent.

Note 1: Some Model CL-600-2B16 (CL-604 Variant) airplanes might be referred to by a marketing designation of CL-605.

**Subject**

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

**Reason**

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

Following five reported cases of \* \* \* balance washer screw failure on similar ADGs [air-driven generators]/ram air turbines installed on other aircraft types, investigation by Hamilton Sundstrand determined that a specific batch of the screws had a metallographic non-conformity that increased their susceptibility to brittle fracture. Subsequently, it was established that 152 "dry" ADGs [Hamilton Sundstrand Part Numbers (P/Ns) in the 761339 series and 1711405; see Note] either had non-conforming screws installed during production or possibly during maintenance or repair at Hamilton Sundstrand repair stations.

Failure of a balance washer screw can result in loss of the related balance washer, with consequent turbine imbalance. Such imbalance could potentially result in ADG structural failure (including blade failure), loss of ADG electrical power and structural damage to the aircraft and, if deployment was activated by a dual engine shutdown, could also result in loss of hydraulic power for the flight controls [and consequent reduced ability of the flightcrew to maintain the safe flight and landing of the airplane].

This [Canadian] directive mandates checking of the ADG and replacing the balance washer screws, if required. It also prohibits future installation of unmodified ADGs.

Note: ADGs with Hamilton Sundstrand P/Ns in the 761339 series and 1711405 are installed on the aircraft model listed in the Applicability section above in addition to Bombardier Inc. Models CL-600-2B19, CL-600-2C10 and CL-600-2D24. The latter three models are covered in a separate directive.

## 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) At the earliest of the times identified in paragraphs (g)(1), (g)(2), (g)(3), and (g)(4) of this AD, do an inspection to determine the serial number of the installed ADG. A review of airplane maintenance records is acceptable in lieu of this inspection if the serial number of the ADG can be conclusively determined from that review.

(1) Within 400 flight hours or 12 months after the effective date of this AD, whichever occurs first, or

(2) Prior to the next in-flight or on-ground functional test of the ADG, whichever occurs first after the effective date of this AD, or

(3) Prior to the next in-flight or on-ground operational test of the ADG, whichever occurs first after the effective date of this AD, or

(4) Prior to the next scheduled ADG in-flight deployment.

(h) If the ADG serial number, as determined in paragraph (g) of this AD, is not listed in paragraph 1.A of the applicable Bombardier service bulletin listed in Table 1 of this AD, no further action is required by this AD, except as required by paragraph (j) of this AD.

**Table 1 – Service Bulletins**

<b>Model –</b>	<b>Bombardier Service Bulletin –</b>	<b>Dated –</b>
CL-600-2B16 (CL-604) airplanes	604-24-021	July 13, 2009
CL-600-2B16 (CL-605) airplanes	605-24-001	July 13, 2009

(i) If the ADG serial number determined in paragraph (g) of this AD is identified in paragraph 1.A. of the applicable service bulletin listed in Table 1 of this AD, before further flight, do an inspection to determine if the symbol "24-5" is marked on the ADG identification plate. A review of airplane maintenance records is acceptable in lieu of this inspection if the symbol "24-5" can be conclusively determined from that review.

(1) If the symbol "24-5" is marked on the ADG identification plate, and the balance washer screws have already been replaced, no further action is required by this AD, except as required by paragraph (j) of this AD.

(2) If the symbol "24-5" is not marked on the ADG identification plate, before further flight, replace all balance washer screws with new screws having part number MS24667-14 and mark the ADG identification plate with symbol "24-5", in accordance with the Accomplishment Instructions of the applicable service bulletin listed in Table 1 of this AD.

(j) As of the effective date of this AD, no person may install on any airplane a replacement or spare ADG, Hamilton Sundstrand part number in the 761339 or 1711405 series, having one of the serial numbers identified in paragraph 1.A. of the applicable service bulletin listed in Table 1 of this AD, unless the ADG is identified with the symbol "24-5" on the identification plate.

### **FAA AD Differences**

Note 2: This AD differs from the MCAI and/or service information as follows: The MCAI specifies to inspect only airplanes having certain serial numbers that are part of the MCAI applicability. Because the affected part could be rotated onto any of the airplanes listed in the applicability, this AD requires the inspection be done on all airplanes. We have coordinated this difference with TCCA.

### **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**

(1) Refer to MCAI Canadian Airworthiness Directive CF-2009-50, dated December 17, 2009; and Bombardier Service Bulletins 604-24-021, dated July 13, 2009, and 605-24-001, dated July 13, 2009; for related information.

### **Material Incorporated by Reference**

(m) You must use Bombardier Service Bulletin 604-24-021, dated July 13, 2009; or Bombardier Service Bulletin 605-24-001, dated July 13, 2009; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

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

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

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

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

Issued in Renton, Washington, on September 10, 2010.

Jeffrey E. Duven,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



**2010-20-07 International Aero Engines AG:** Amendment 39-16441. Docket No. FAA-2009-1100; Directorate Identifier 2009-NE-37-AD.

## Effective Date

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

## Affected ADs

- (b) None.

## Applicability

- (c) This AD applies to:

(1) All International Aero Engines AG (IAE) V2500-A1 turbofan engines; and  
(2) All IAE V2525-D5 and V2528-D5 turbofan engines; and  
(3) IAE V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, and V2533-A5 turbofan engines with serial numbers (S/Ns) up to and including V13181, and with S/Ns from V15000 up to and including V15245.

(4) These engines are installed on, but not limited to, Airbus A319, A320, and A321, and McDonnell Douglas MD-90 airplanes.

## Unsafe Condition

(d) This AD results from reports of 39 high-pressure compressor (HPC) stage 3 to 8 drums found cracked since March 2009. We are issuing this AD to prevent uncontained failure of the HPC stage 3 to 8 drum, which could result in damage to the airplane.

## Compliance

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

## Engines Requiring Ultrasonic Inspections of the HPC Stage 3 to 8 Drum

(f) For IAE V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, and V2533-A5 turbofan engines with S/Ns in "Group A" or "Group D" in IAE Service Bulletin (SB) No. V2500-ENG-72-0594, Revision 6, dated April 12, 2010, and for V2500-A1 turbofan engines with S/Ns in "Group A" in IAE SB No. V2500-ENG-72-0603, Revision 2, dated March 17, 2010, do the following:

(1) Perform an initial ultrasonic inspection of the HPC stage 3 to 8 drum using IAE SB No. V2500-ENG-72-0594, Revision 6, dated April 12, 2010, Accomplishment Instructions, paragraph 3,

or IAE SB No. V2500-ENG-72-0603, Revision 2, dated March 17, 2010, Accomplishment Instructions, paragraph 3, before accumulating 5,200 cycles-since-new (CSN) or within 500 cycles from the effective date of this AD, whichever occurs later.

(2) Thereafter, perform repetitive ultrasonic inspections of the HPC stage 3 to 8 drum for cracks within every 500 cycles-since-last-inspection.

(3) If cracks or crack indications are identified, remove the drum from service before further flight.

### **Mandatory Terminating Action**

(4) As mandatory terminating action to the repetitive inspections required by this AD, at the next engine shop visit, but no later than 27 months after the effective date of this AD, do the following before returning any HPC stage 3 to 8 drum to service:

(i) Remove from service fully silver plated nuts, part number (P/N) AS44862 or equivalent, that attach the HPC stage 3 to 8 drum to the HPC stage 9 to 12 drum.

(ii) Remove the silver residue from the HPC stage 3 to 8 drum using the IAE SB No. V2500-ENG-72-0601, Revision 2, dated April 12, 2010, Accomplishment Instructions, paragraph 3. Drums cleaned before the effective date of this AD using engine manual task 72-41-11-110-001 satisfy this requirement.

(iii) Fluorescent penetrant inspect (FPI) the HPC stage 3 to 8 drum for cracks, and remove from service any drum found cracked. You can find guidance on performing an FPI of the HPC stage 3 to 8 drum in IAE engine manual task 72-41-11-200-001.

(iv) Installation of a zero-time HPC stage 3 to 8 drum or a drum that has never operated with fully silver plated nuts, P/N AS44862 or equivalent, that attach the HPC stage 3 to 8 drum to the HPC stage 9 to 12 drum eliminates the need for the cleaning and FPI required by paragraphs (f)(4)(ii) and (f)(4)(iii) of this AD.

### **All Other Engines**

(g) For all other engines, at the next piece-part exposure of the HPC stage 3 to 8 drum after the effective date of this AD, do the following before returning the drum to service:

(1) Remove from service fully silver plated nuts, P/N AS44862 or equivalent, that attach the HPC stage 3 to 8 drum to the HPC stage 9 to 12 drum.

(2) Remove the silver residue from the HPC stage 3 to 8 drum using IAE SB No. V2500-ENG-72-0601, Revision 2, dated April 12, 2010, Accomplishment Instructions, paragraph 3. Drums cleaned before the effective date of this AD using engine manual task 72-41-11-110-001 satisfy this requirement.

(3) FPI the HPC stage 3 to 8 drum for cracks, and remove from service any drum found cracked. You can find guidance on performing an FPI of the HPC stage 3 to 8 drum in IAE engine manual task 72-41-11-200-001.

(4) Installation of a zero-time HPC stage 3 to 8 drum or a drum that has never operated with fully silver plated nuts, P/N AS44862 or equivalent, that attach the HPC stage 3 to 8 drum to the HPC stage 9 to 12 drum eliminates the need for the cleaning and FPI required by paragraphs (g)(2) and (g)(3) of this AD.

### **Definitions**

(h) For the purpose of this AD, an engine shop visit is the induction of an engine into the shop for maintenance involving the separation of a pair of major mating engine flanges, except that the

separation of engine flanges solely for the purposes of transportation without subsequent engine maintenance is not an engine shop visit.

(i) For the purpose of this AD, piece-part exposure is removal of the HPC stage 3 to 8 drum from the engine and removal of all blades from the drum.

### **Previous Credit**

(j) Initial or repetitive ultrasonic inspections of the HPC stage 3 to 8 drum using IAE SB No. V2500-ENG-72-0594, Revision 3, dated August 7, 2009, or Revision 4, dated October 13, 2009, or Revision 5, dated November 23, 2009, before the effective date of this AD, meets the inspection requirements of paragraphs (f)(1) through (f)(3) of this AD.

(k) Initial or repetitive ultrasonic inspections of the HPC stage 3 to 8 drum using IAE SB No. V2500-ENG-72-0603, Original Issue, dated November 24 2009, or Revision 1, dated December 18, 2009, before the effective date of this AD, meets the inspection requirements of paragraphs (f)(1) through (f)(3) of this AD.

### **Alternative Methods of Compliance (AMOCs)**

(l) The Manager, Engine Certification Office, has the authority to approve AMOCs for this AD if requested using the procedures found in 14 CFR 39.19.

### **Related Information**

(m) Contact Mark Riley, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: mark.riley@faa.gov; telephone (781) 238-7758, fax (781) 238-7199, for more information about this AD.

(n) Contact International Aero Engines AG, 400 Main Street, East Hartford, CT 06108; telephone: (860) 565-5515; fax: (860) 565-5510, for a copy of the service information referenced in this AD.

### **Material Incorporated by Reference**

(o) You must use the service information specified in the following Table 1 to perform the inspections and silver residue removal required by this AD. The Director of the Federal Register approved the incorporation by reference of the documents listed in the following Table 1 in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact International Aero Engines AG, 400 Main Street, East Hartford, CT 06108; telephone: (860) 565-5515; fax: (860) 565-5510, for a copy of this service information. You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

**Table 1 – Incorporation by Reference**

<b>International Aero Engines Service Bulletin No.</b>	<b>Page</b>	<b>Revision</b>	<b>Date</b>
V2500-ENG-72-0594	ALL	6	April 12, 2010
Total Pages: 61			
V2500-ENG-72-0601	ALL	2	April 12, 2010
Total Pages: 9			
V2500-ENG-72-0603	ALL	2	March 17, 2010
Total pages: 46			

Issued in Burlington, Massachusetts, on September 15, 2010.

Robert J. Ganley,  
Acting Manager, Engine and Propeller Directorate,  
Aircraft Certification Service.



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**2010-20-08 The Boeing Company:** Amendment 39-16442. Docket No. FAA-2009-1069; Directorate Identifier 2009-NM-036-AD.

**Effective Date**

(a) This AD becomes effective November 9, 2010.

**Affected ADs**

(b) This AD supersedes AD 2001-16-02, Amendment 39-12370.

**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, 747-400D, 747-400F, and 747SR series airplanes, certificated in any category, having line numbers 1 through 1419 inclusive; except for Model 747-400 series airplanes that have been modified into the 747-400 large cargo freighter configuration.

**Subject**

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

**Unsafe Condition**

(e) This AD results from additional reports of cracks that have been found in the strap and inner chord of the forward edge frame of the number 5 main entry door cutouts, between stringers 16 and 23. Based on these reports, we have determined that the frame segment between stringers 16 and 23 is also susceptible to the unsafe condition. The Federal Aviation Administration is issuing this AD to detect and correct such cracks. This condition, if not corrected, could cause damage to the adjacent body structure, which could result in depressurization of the airplane in flight.

**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 2001-16-02, With New Service Information**

**Repetitive Inspections for Frame Segment Between Stringers 23 and 31 (No Terminating Action)**

(g) For airplanes having line numbers 1 through 1304 inclusive: Inspect the airplane for cracks between stringers 23 and 31 per Boeing Alert Service Bulletin 747-53A2450, Revision 2, including Appendix A, dated January 4, 2001; or Boeing Alert Service Bulletin 747-53A2450, Revision 5,

dated January 29, 2009; at the later of the times specified in either paragraph (h) or (i) of this AD, per Table 1, as follows. After the effective date of this AD, use only Revision 5 of Boeing Alert Service Bulletin 747-53A2450, to accomplish the required inspection.

**Table 1– Inspection Requirements**

<b>Type of Inspection</b>	<b>Area to inspect</b>
(1) Detailed Visual	Strap inner chords forward and aft of the web, and exposed web adjacent to the inner chords on station 2231 frame from stringer 23 through 31 per Figure 5 or Figure 6 of the service bulletin, as applicable
(2) Surface High Frequency Eddy Current (HFEC)	Station 2231 inner chord angles at lower main sill interface per Figure 5 or Figure 6 of the service bulletin, as applicable
(3) Open Hole HFEC	Station 2231 frame fastener locations per Figures 4 and 7, and either Figure 5 or 6 of the service bulletin, as applicable
(4) Surface HFEC	Around fastener locations on station 2231 inner chords from stringer 23 through 31 per Figure 5 or Figure 6 of the service bulletin, as applicable
(5) Low Frequency Eddy Current	Station 2231 frame strap in areas covered by the reveal per Figure 5 or Figure 6 of the service bulletin, as applicable

(h) Do the inspections specified in paragraph (g) of this AD at the applicable times specified in paragraph (h)(1) or (h)(2) of this AD. Repeat the inspections at intervals not to exceed 3,000 flight cycles.

(1) Do the inspections per Table 1 of this AD at the applicable time specified in the logic diagram in Figure 1 of Boeing Alert Service Bulletin 747-53A2450, Revision 2, including Appendix A, dated January 4, 2001. Where the compliance time in the logic diagram specifies a compliance time beginning, "from receipt of this service bulletin," this AD requires that the compliance time begin "after September 12, 2001 (the effective date of AD 2001-16-02)."

(2) After the effective date of this AD, do the inspections per Table 1 of this AD at the applicable compliance time specified in paragraph 1.E., "Compliance" of the Boeing Alert Service Bulletin 747-53A2450, Revision 5, dated January 29, 2009. Where the compliance time in Boeing Alert Service Bulletin 747-53A2450, Revision 2, including Appendix A, dated January 4, 2001, specifies a compliance time beginning, "after the date on Revision 2 of this service bulletin," this AD requires that the compliance time begin "after September 12, 2001 (the effective date of AD 2001-16-02)."

(i) Within 3,000 flight cycles after accomplishment of the inspections specified in Figure 1 of Boeing Alert Service Bulletin 747-53A2450, dated May 4, 2000; or Revision 1, dated July 6, 2000; repeat the inspections specified in paragraph (g) of this AD at intervals not to exceed 3,000 flight cycles.

Note 1: There is no terminating action currently available for the inspections required by paragraph (g) of this AD.

Note 2: Where there are differences between the AD and Boeing Alert Service Bulletin 747-53A2450, the AD prevails.

## **New Requirements of This AD**

### **Additional Repetitive Inspections (For Frame Segment Between Stringers 16 and 23)**

(j) For all airplanes: Before the accumulation of 16,000 total flight cycles, or within 1,500 flight cycles after the effective date of this AD, whichever occurs later, do a detailed inspection, an open hole high frequency eddy current (HFEC) inspection, a surface HFEC inspection, and a subsurface low frequency eddy current (LFEC) inspection for cracking of the forward edge frame of the number 5 main entry door cutouts, at station 2231, between stringers 16 and 23; in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2450, Revision 5, dated January 29, 2009. Repeat the inspections thereafter at intervals not to exceed 3,000 flight cycles.

Note 3: The part number of the nut for fastener code "K" in Figure 7 of Boeing Alert Service Bulletin 747-53A2450, Revision 5, dated January 29, 2009, should be "BACN10JC3CD," instead of "BACB30JC3CD." In addition, the part number of the optional nut for this fastener code should be "BACN10YR3CD," instead of "BACN10YR4CD."

### **Repetitive Inspections for Line Numbers 1305 and On (For Frame Segment Between Stringers 23 and 31)**

(k) For airplanes having line numbers 1305 and on: Before 16,000 total flight cycles or within 1,500 flight cycles after the effective date of this AD, whichever occurs later, do a detailed inspection, an open hole HFEC inspection, a surface HFEC inspections, and a subsurface LFEC inspection for cracking of the forward edge frame of the number 5 main entry door cutouts, at station 2231, between stringers 23 and 31; in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2450, Revision 5, dated January 29, 2009. Repeat the inspections thereafter at intervals not to exceed 3,000 flight cycles.

### **Corrective Action**

(l) If any crack is found during any inspection required by this AD, before further flight, repair the crack in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA; in accordance with data meeting the type certification basis of the airplane approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings; or in accordance with Boeing Alert Service Bulletin 747-53A2450, Revision 5, dated January 29, 2009. For a repair method to be approved by the Manager, Seattle ACO, as required by this paragraph, the approval letter must specifically reference this AD. As of the effective date of this AD, repair the crack using a method approved in accordance with the procedures specified in paragraph (o) of this AD.

### **Post-Repair Inspections**

(m) Except as required by paragraph (n) of this AD, for airplanes on which the forward edge frame of the number 5 main entry door cutouts, at station 2231, between stringers 16 and 31, is repaired in accordance with Boeing Alert Service Bulletin 747-53A2450: Within 3,000 flight cycles after doing the repair or within 1,500 flight cycles after the effective date of this AD, whichever occurs later, do the detailed, LFEC, and HFEC inspections of the repaired area for cracks in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2450, Revision 5, dated January 29, 2009. If no cracking is found, repeat the inspections thereafter at

intervals not to exceed 3,000 flight cycles. If any crack is found, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (o) of this AD. Doing the inspections specified in paragraph (m) of this AD terminates the repetitive inspections required by paragraphs (g), (h), (i), (j), and (k) of this AD for the repaired area.

(n) For any frame that is repaired in accordance with a method other than the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2450, Revision 5, dated January 29, 2009, do the inspection in accordance with a method approved in accordance with the procedures specified in paragraph (o) of this AD.

### **Alternative Methods of Compliance (AMOCs)**

(o)(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, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6437; fax (425) 917-6590; Or, e-mail information to 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

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

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

(4) AMOCs approved previously in accordance with AD 2001-16-02, amendment 39-12370, are approved as AMOCs for the corresponding provisions of paragraphs (g), (h), (i), and (l) of this AD.

### **Material Incorporated by Reference**

(p) You must use Boeing Alert Service Bulletin 747-53A2450, Revision 5, dated January 29, 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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on September 15, 2010.  
Robert D. Breneman,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2010-20-09 Bombardier, Inc.:** Amendment 39-16443. Docket No. FAA-2010-0375; Directorate Identifier 2010-NM-014-AD.

**Effective Date**

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

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to Bombardier, Inc. Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes, serial numbers 7305 through 7990 inclusive and 8000 and subsequent; Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, serial numbers 10003 and subsequent; Model CL-600-2D15 (Regional Jet Series 705) and Model CL-600-2D24 (Regional Jet Series 900) airplanes, serial numbers 15001 and subsequent; certificated in any category.

**Subject**

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

**Reason**

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

Following five reported cases of balance washer screw failure on similar ADGs [air-driven generators]/ram air turbines installed on other aircraft types, investigation by Hamilton Sundstrand determined that a specific batch of the screws had a metallographic non-conformity that increased their susceptibility to brittle fracture. Subsequently, it was established that 152 "dry" ADGs [Hamilton Sundstrand Part Numbers (P/Ns) in the 761339 series and 1711405; see Note] either had non-conforming screws installed during production or may possibly have had non-conforming screws installed during maintenance or repair at Hamilton Sundstrand repair stations.

Failure of a balance washer screw can result in loss of the related balance washer, with consequent turbine imbalance. Such imbalance could potentially result in ADG structural failure (including blade failure), loss of ADG electrical power and structural damage to the aircraft and, if deployment was activated by a dual engine shutdown, could also result in loss of hydraulic power for the flight controls.

This [Canadian] directive mandates checking the ADG and replacing the balance washer screws, if required. It also prohibits future installation of unmodified ADGs.

Note: ADGs with Hamilton Sundstrand P/Ns in the 761339 series and 1711405 are installed on the aircraft models listed in the Applicability section above in addition to Bombardier Inc. Model CL-600-2B16. The latter model is covered in a separate directive.

The unsafe condition is the reduced ability of the flightcrew to maintain the 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.

## **Actions**

(g) For Model CL-600-2C10, CL-600-2D15 and CL-600-2D24 airplanes: At the earliest of the times identified in paragraphs (g)(1), (g)(2), (g)(3), and (g)(4) of this AD, do an inspection to determine the serial number of the installed air-driven generator (ADG), in accordance with the Accomplishment Instructions of the applicable service bulletin listed in Table 1 of this AD. A review of airplane maintenance records is acceptable in lieu of this inspection if the serial number of the ADG can be conclusively identified from that review.

(1) Within 4,000 flight hours or 18 months after the effective date of this AD, whichever occurs first; or

(2) Prior to the next in-flight or on-ground functional check of the ADG, whichever occurs first after the effective date of this AD; or

(3) Prior to the next in-flight or on-ground operational check of the ADG, whichever occurs first after the effective date of this AD; or

(4) Before the next scheduled ADG in-flight deployment.

(h) For Model CL-600-2B19 airplanes: At the earliest of the times identified in paragraphs (h)(1), (h)(2), (h)(3), and (h)(4) of this AD, do an inspection to determine the serial number of the installed ADG, in accordance with the Accomplishment Instructions of the applicable service bulletin listed in Table 1 of this AD. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number of the ADG can be conclusively identified from that review.

(1) Within 4,000 flight hours after the effective date of this AD; or

(2) Prior to the next in-flight or on-ground functional check of the ADG, whichever occurs first after the effective date of this AD; or

(3) Prior to the next in-flight or on-ground operational check of the ADG, whichever occurs first after the effective date of this AD; or

(4) Before the next scheduled ADG in-flight deployment.

**Table 1 – Service Bulletins**

<b>Model –</b>	<b>Bombardier Service Bulletin –</b>	<b>Revision –</b>	<b>Dated –</b>
CL-600-2B19 airplanes	601R-24-127	A	February 25, 2010
CL-600-2C10, CL-600-2D15, and CL-600-2D24 airplanes	670BA-24-026	Original	October 23, 2009

(i) If the ADG serial number determined in paragraph (g) or (h) of this AD is identified in paragraph 1.A. of the applicable service bulletin listed in Table 1 of this AD, within the applicable time in paragraph (g) or (h) of this AD do an inspection to determine if the symbol "24-5" is marked on the ADG identification plate. A review of airplane maintenance records is acceptable in lieu of this inspection if the symbol "24-5" mark can be conclusively identified from that review.

(1) If the symbol "24-5" is marked on the ADG identification plate, the balance washer screws have already been replaced, and no further action is required by this paragraph.

(2) If the symbol "24-5" is not marked on the ADG identification plate, before further flight replace all balance washer screws with new balance washer screws, part number MS24667-14, and mark the ADG identification plate with symbol "24-5," in accordance with the Accomplishment Instructions of the applicable service bulletin listed in Table 1 of this AD.

(j) As of the effective date of this AD, no person may install on any airplane, a replacement or spare ADG, Hamilton Sundstrand part number in the 761339 or 1711405 series, having one of the serial numbers identified in paragraph 1.A. of the applicable service bulletin identified in Table 1 of this AD, unless the ADG is identified with the symbol "24-5" on the identification plate.

#### **Actions Accomplished According to Previous Issue of Service Bulletin**

(k) Inspections accomplished before the effective date of this AD according to Bombardier Service Bulletin 601R-24-127, dated October 23, 2009, are considered acceptable for compliance with the corresponding action specified in this AD.

#### **FAA AD Differences**

Note 1: This AD differs from the MCAI and/or service information as follows: The MCAI specifies to inspect only airplanes having certain serial numbers that are part of the MCAI applicability. Because the affected part could be rotated onto any of the airplanes listed in the applicability, this AD requires the inspection be done on all airplanes. We have coordinated this with the TCCA.

#### **Other FAA AD Provisions**

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

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

(m) Refer to MCAI Canadian Airworthiness Directive CF-2009-48, dated December 14, 2009; and Bombardier Service Bulletins 601R-24-127, Revision A, dated February 25, 2010, and 670BA-24-026, dated October 23, 2009; for related information.

### **Material Incorporated by Reference**

(n) You must use Bombardier Service Bulletin 601R-24-127, Revision A, dated February 25, 2010; or Bombardier Service Bulletin 670BA-24-026, dated October 23, 2009; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

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

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

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

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

Issued in Renton, Washington, on September 15, 2010.

Robert D. Breneman,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2010-20-10 The Cessna Aircraft Company:** Amendment 39-16444. Docket No. FAA-2010-0380; Directorate Identifier 2009-NM-009-AD.

**Effective Date**

- (a) This AD becomes effective November 1, 2010.

**Affected ADs**

- (b) This AD supersedes AD 2006-23-05, Amendment 39-14817.

**Applicability**

- (c) This AD applies to The Cessna Aircraft Company Model 750 airplanes, certificated in any category, as identified in Cessna Service Bulletin SB750-27-62, Revision 3, dated August 21, 2009.

**Subject**

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

**Unsafe Condition**

- (e) This AD results from a report of cracking found on the elevator inboard-hinge brackets and the horizontal stabilizer hinges. The Federal Aviation Administration is issuing this AD to prevent cracking of the elevator inboard-hinge brackets and the horizontal stabilizer hinges, which could result in structural failure of the elevators and consequent loss of control of the airplane.

**Compliance**

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

**Restatement of Requirements of AD 2006-23-05, With No Changes**

**Inspection**

- (g) After the airplane accumulates 2,500 total flight hours: Perform a general visual inspection for cracking of the inboard-hinge brackets of the left and right elevators in accordance with the Accomplishment Instructions of Cessna Alert Service Letter ASL750-27-21, dated October 13, 2006. Do the inspection before the airplane accumulates 3,000 total flight hours, or within 10 flight hours after November 22, 2006 (the effective date of AD 2006-23-05), whichever is later.

Note 1: For the purposes of this AD, a general visual inspection is: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity."

This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to enhance visual access to all exposed surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or droplight and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

### **Related Investigative and Corrective Actions**

(h) If any crack is found during the inspection required by paragraph (g) of this AD: Before further flight, perform an eddy current inspection of the inboard-hinge brackets to determine the crack length, in accordance with the Accomplishment Instructions of Cessna Alert Service Letter ASL750-27-21, dated October 13, 2006; and do the actions specified in paragraph (h)(1) or (h)(2) of this AD, as applicable, at the time specified. All corrective actions must be done using a method approved by the Manager, Wichita Aircraft Certification Office (ACO), FAA. For a replacement method to be approved by the Manager, Wichita ACO, as required by this paragraph, the Manager's approval letter must specifically refer to this AD.

(1) If the crack is 0.30 inch or more: Replace the bracket before further flight.

(2) If the crack is less than 0.30 inch: Continued flight for a maximum of 10 flight hours for repositioning of the airplane and replacement of the bracket is allowed, within the restricted flight envelope included in the attachment to Cessna Alert Service Letter ASL750-27-21, dated October 13, 2006, titled "Flight Restrictions."

### **Special Flight Permits**

(i) Special flight permits, as described in Section 39.23 of the Federal Aviation Regulations (14 CFR 39.23), are allowed with the limitations required by paragraph (h)(2) of this AD.

### **No Reporting or Return of Parts to Manufacturer**

(j) Cessna Alert Service Letter ASL750-27-21, dated October 13, 2006, specifies submitting a sheet related to inspection results to the manufacturer; this AD does not include that requirement. The service letter also specifies sending the elevator assembly to the manufacturer for replacement of the inboard-hinge bracket if a crack is found that is 0.30 inch or more; however, this AD requires corrective actions be done using a method approved by us.

### **New Requirements of This AD**

(k) Within 60 months after the effective date of this AD, do the applicable actions required by paragraphs (k)(1), (k)(2), (k)(3), and (k)(4) of this AD, in accordance with the Accomplishment Instructions of Cessna Service Bulletin SB750-27-62, Revision 3, dated August 21, 2009. Accomplishing the actions required by paragraph (k) of this AD terminates the requirements of paragraphs (g) through (j) of this AD.

(1) For all airplanes except those having S/Ns 288 through 305 inclusive: Do an eddy current inspection for cracks of the bracket of the inboard horizontal stabilizer. Before further flight, replace any cracked bracket of the inboard horizontal stabilizer with a serviceable bracket.

(2) For all airplanes except those having S/Ns 288 through 305 inclusive: Measure the lug thickness of the horizontal stabilizer hinges. If the lug thickness is not within the acceptable tolerance range, as identified in Cessna Service Bulletin SB750-27-62, Revision 3, dated August 21, 2009, before further flight, replace the bearing plate with a serviceable bearing plate.

(3) For all airplanes except those having S/Ns 288 through 305 inclusive: Modify the left and right horizontal stabilizer; and add the modification part number of the horizontal stabilizer to the modification section of the MS27253-1 identification plate.

(4) For all airplanes: Replace the existing elevator assemblies with new elevator assemblies having part numbers 6734000-17 (for the left side) and 6734000-18 (for the right side).

### **Credit for Actions Done Using the Previous Service Information**

(l) Actions accomplished before the effective date of this AD in accordance with the service bulletins identified in Table 1 of this AD are considered acceptable for compliance with the corresponding requirements of paragraphs (k)(1), (k)(2), and (k)(3) of this AD.

**Table 1 – Credit for Previous Service Bulletins**

<b>Service Bulletin</b>	<b>Revision Level</b>	<b>Date</b>
Cessna Service Bulletin SB750-27-62	( <sup>1</sup> )	October 13, 2008
Cessna Service Bulletin SB750-27-62	1	October 22, 2008
Cessna Service Bulletin SB750-27-62	2	December 17, 2008

<sup>1</sup> Original.

### **Alternative Methods of Compliance (AMOCs)**

(m)(1) The Manager, Wichita 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: T.N. Baktha, Aerospace Engineer, Airframe Branch, ACE-118W, FAA, Wichita ACO, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4155; fax (316) 946-4107.

(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**

(n) You must use Cessna Alert Service Letter ASL750-27-21, excluding the attachment titled "Inspection Results Form" and including the attachment titled "Flight Restrictions," dated October 13, 2006; and Cessna Service Bulletin SB750-27-62, Revision 3, dated August 21, 2009, including Service Bulletin Supplemental Data, Revision D, dated September 18, 2009; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of Cessna Service Bulletin SB750-27-62, Revision 3, dated August 21, 2009, including Service Bulletin Supplemental Data, Revision D, dated September 18, 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 Cessna Alert Service Letter ASL750-27-21, excluding the attachment titled "Inspection Results Form" and including the attachment titled "Flight Restrictions," dated October 13, 2006, on November 22, 2006 (71 FR 65047, November 7, 2006).

(3) For service information identified in this AD, contact Cessna Aircraft Co., P.O. Box 7706, Wichita, Kansas 67277; telephone 316-517-6215; fax 316-517-5802; e-mail [citationpubs@cessna.textron.com](mailto:citationpubs@cessna.textron.com); Internet <https://www.cessnasupport.com/newlogin.html>.

(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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on September 15, 2010.

Robert D. Breneman,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2010-20-12 The Boeing Company:** Amendment 39-16447; Docket No. FAA-2010-0035; Directorate Identifier 2009-NM-066-AD.

**Effective Date**

- (a) This AD is effective November 5, 2010.

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to The Boeing Company Model 747-400, 747-400D, and 747-400F series airplanes, certificated in any category; as identified in the service bulletins listed in paragraphs (c)(1) and (c)(2) of this AD.

- (1) Boeing Service Bulletin 747-28A2266, Revision 1, dated December 10, 2009.  
(2) Boeing Alert Service Bulletin 747-28A2267, dated December 18, 2008.

**Subject**

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

**Unsafe Condition**

(e) This AD results from fuel system reviews conducted by the manufacturer. The Federal Aviation Administration is issuing this AD to prevent an electrical hot short from a source outside the fuel quantity indicating system (FQIS) to the densitometer wiring from causing failure of the FQIS densitometer resistors, which could result in an ignition source inside the center or horizontal stabilizer fuel tanks. An ignition source, in combination with flammable fuel vapors, could result in a fuel tank explosion and consequent loss 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.

**Installation of Hot Short Protector (HSP)**

(g) Within 60 months after the effective date of this AD: Do the applicable installations of the HSP specified in paragraphs (g)(1) and (g)(2) of this AD.

Note 1: Boeing Service Bulletin 747-28A2266, Revision 1, dated December 10, 2009; and Boeing Alert Service Bulletin 747-28A2267, dated December 18, 2008; refer to Cinch Service Bulletin CN1036-28-01, Revision C, dated January 18, 2007, as an additional source of guidance for installing the HSP in the fuel tanks which must be done before or concurrently with the actions specified in Boeing Service Bulletin 747-28A2266, Revision 1, dated December 10, 2009; and Boeing Alert Service Bulletin 747-28A2267, dated December 18, 2008.

(1) For all airplanes: Install the HSP in the center wing tank, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 747-28A2266, Revision 1, dated December 10, 2009.

(2) For airplanes identified in Boeing Alert Service Bulletin 747-28A2267, dated December 18, 2008: Install the HSP in the horizontal stabilizer tank, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-28A2267, dated December 18, 2008.

### **Credit for Installation Previously Accomplished in Accordance With Previous Issue of Service Bulletin**

(h) Actions accomplished before the effective date of this AD according to Boeing Alert Service Bulletin 747-28A2266, dated December 18, 2008, are considered acceptable for compliance with the corresponding action specified in this AD, provided that Cinch Service Bulletin CN1036-28-01, Revision C, dated January 18, 2007, is used as an additional source of guidance.

### **Alternative Methods of Compliance (AMOCs)**

(i)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Georgios Roussos, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6482; fax (425) 917-6590. Or, e-mail information to 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

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

### **Material Incorporated by Reference**

(j) You must use Boeing Service Bulletin 747-28A2266, Revision 1, dated December 10, 2009; or Boeing Alert Service Bulletin 747-28A2267, dated December 18, 2008; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of 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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on September 16, 2010.  
Robert D. Breneman,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2010-20-13 McDonnell Douglas Corporation:** Amendment 39-16448; Docket No. FAA-2010-0553; Directorate Identifier 2010-NM-070-AD.

**Effective Date**

- (a) This AD is effective November 9, 2010.

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to McDonnell Douglas Corporation Model DC-10-30, DC-10-30F, DC-10-30F (KC-10A and KDC-10), DC-10-40, DC10-40F, and MD-10-30F airplanes, certificated in any category; as identified in Boeing Service Bulletin DC10-28-244, dated February 25, 2010.

**Subject**

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

**Unsafe Condition**

(e) This AD results from fuel system reviews conducted by the manufacturer. The Federal Aviation Administration is issuing this AD to reduce the potential of ignition sources inside fuel tanks, which, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane.

**Compliance**

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

**Actions**

(g) Within 60 months after the effective date of this AD do the actions specified in paragraphs (g)(1), (g)(2), (g)(3), and (g)(4) of this AD, as applicable, and do all applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Service Bulletin DC10-28-244, dated February 25, 2010, except as required by paragraph (h) of this AD. Do all applicable corrective actions before further flight.

(1) Do a one-time general visual inspection of the wire bundles to determine if wires touch the upper surface of the center upper auxiliary fuel tank, and mark the location as applicable.

(2) Do a one-time detailed inspection for splices and damage of all wire bundles between Stations Y = 1219.000 and Y = 1381.000 between X = -40 to X = -90 (right side) and X = 15 to X = 85 (left side) above the center upper auxiliary fuel tank.

(3) Do a one-time detailed inspection for damage (burn marks) on the upper surface of the center upper auxiliary fuel tank and to the fuel vapor barrier seal.

(4) Install non-metallic barrier/shield sleeving to the wire harnesses, new clamps, new attaching hardware, and new extruded channels.

(h) Where Boeing Service Bulletin DC10-28-244, dated February 25, 2010, specifies to contact Boeing for repair instructions: Before further flight, repair the center upper auxiliary fuel tank using a method approved in accordance with the procedures specified in paragraph (i) of this AD.

### **Alternative Methods of Compliance (AMOCs)**

(i)(1) The Manager, Los Angeles Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Samuel Lee, Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Los Angeles ACO, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5262; fax (562) 627-5210.

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

(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, Los Angeles 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.

### **Related Information**

(j) For more information about this AD, contact Samuel Lee, Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5262; fax (562) 627-5210.

### **Material Incorporated by Reference**

(k) You must use Boeing Service Bulletin DC10-28-244, dated February 25, 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 the service information specified in this AD under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, 3855 Lakewood Boulevard, MC D800-0019, Long Beach, California 90846-0001; telephone 206-544-5000, extension 2; fax 206-766-5683; e-mail [dse.boecom@boeing.com](mailto:dse.boecom@boeing.com); Internet <https://www.myboeingfleet.com>.

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

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at an NARA facility, call 202-741-6030, or go to [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on September 16, 2010.

Robert D. Breneman,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2010-20-14 McDonnell Douglas Corporation:** Amendment 39-16449. Docket No. FAA-2010-0384; Directorate Identifier 2010-NM-003-AD.

**Effective Date**

(a) This airworthiness directive (AD) is effective November 5, 2010.

**Affected ADs**

(b) None.

**Applicability**

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

(1) 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, and MD-10-30F airplanes; certificated in any category; as identified in Boeing Service Bulletin DC10-28-252, Revision 1, dated January 6, 2010.

(2) McDonnell Douglas Corporation Model MD-11 and MD-11F airplanes; certificated in any category; as identified in Boeing Service Bulletin MD11-28-132, Revision 1, dated July 6, 2010.

**Subject**

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

**Unsafe Condition**

(e) This AD results from fuel system reviews conducted by the manufacturer. The Federal Aviation Administration is issuing this AD to prevent fuel tank explosions and consequent loss 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.

**Installation**

(g) Within 60 months after the effective date of this AD do the actions specified in paragraph (g)(1) or (g)(2) of this AD, as applicable.

(1) For 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, and MD-10-30F airplanes: Install an in-line fuse in each float level switch and pressure switch, including sleeving the wires between the fuel tank and the in-

line fuse, in fuel tanks 1, 2, and 3; upper and lower auxiliary fuel tanks; forward and aft auxiliary fuel tanks; and center wing fuel tanks; as applicable; in accordance with the Accomplishment Instructions of Boeing Service Bulletin DC10-28-252, Revision 1, dated January 6, 2010.

(2) For Model MD-11 and MD-11F airplanes: Install an in-line fuse in each float level switch, including sleeving the wires between the fuel tank and the in-line fuse, in fuel tanks 1, 2, and 3; upper and lower auxiliary fuel tanks; forward auxiliary fuel tank; center wing fuel tanks; and tail fuel tank; as applicable; in accordance with the Accomplishment Instructions of Boeing Service Bulletin MD11-28-132, Revision 1, dated July 6, 2010.

### **Installation According to Previous Issues of Service Bulletins**

(h) Installing an in-line fuse in each float level switch and pressure switch, including sleeving the wires between the fuel tank and the in-line fuse, in fuel tanks 1, 2, and 3; upper and lower auxiliary fuel tanks; forward and aft auxiliary fuel tanks; and center wing fuel tanks; as applicable; is also acceptable for compliance with the corresponding requirements of paragraph (g)(1) of this AD, if done before the effective date of this AD, in accordance with Boeing Service Bulletin DC10-28-252, dated November 25, 2008.

(i) Installing an in-line fuse in each float level switch, including sleeving the wires between the fuel tank and the in-line fuse, in fuel tanks 1, 2, and 3; upper and lower auxiliary fuel tanks; forward auxiliary fuel tank; center wing fuel tanks; and tail fuel tank; as applicable; is also acceptable for compliance with the corresponding requirements of paragraph (g)(2) of this AD if done before the effective date of this AD, in accordance with Boeing Service Bulletin MD11-28-132, dated November 25, 2008.

### **Alternative Methods of Compliance (AMOCs)**

(j)(1) The Manager, Los Angeles Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Philip Kush, Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5263; fax (562) 627-5210.

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

### **Material Incorporated by Reference**

(k) You must use Boeing Service Bulletin DC10-28-252, Revision 1, dated January 6, 2010; or Boeing Service Bulletin MD11-28-132, Revision 1, dated July 6, 2010; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, 3855 Lakewood Boulevard, MC D800-0019, Long Beach, California 90846-0001; telephone 206-544-5000, extension 2; fax 206-766-5683; e-mail dse.boecom@boeing.com; Internet <https://www.myboeingfleet.com>.

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

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

Issued in Renton, Washington, on September 16, 2010.

Robert D. Breneman,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2010-20-15 Bombardier, Inc.:** Amendment 39-16450. Docket No. FAA-2010-0438; Directorate Identifier 2009-NM-265-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective November 5, 2010.

**Affected ADs**

- (b) This AD supersedes AD 2009-22-12, Amendment 39-16065.

**Applicability**

(c) This AD applies to Bombardier, Inc. Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, Model CL-600-2D15 (Regional Jet Series 705) airplanes, and Model CL-600-2D24 (Regional Jet Series 900) airplanes; certificated in any category, that are equipped with Thales angle of attack (AOA) transducers having part number (P/N) C16258AA.

**Subject**

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

**Reason**

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

The heating capability of several AOA [angle of attack] transducer heating elements removed from in-service aircraft has been found to be below the minimum requirement. Also, it was discovered that a large number of AOA transducers repaired in an approved maintenance facility were not calibrated accurately.

Inaccurate calibration of the AOA transducer and/or degraded AOA transducer heating elements can result in early or late activation of the stall warning, stick shaker and stick pusher by the Stall Protection Computer (SPC).

This [Canadian] directive mandates a periodic inspection of the inrush current to verify the AOA heating capability and replacement of the inaccurately calibrated AOA transducers.

Inaccurate calibration of the AOA transducers and/or degraded AOA transducer heating elements could result in an ineffective response to an aerodynamic stall and reduced controllability 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 2009-22-12

(g) Do the following actions.

(1) Within the applicable compliance times specified in Table 1 of this AD: Measure the inrush current of both AOA transducers, in accordance with Part A of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-27-051, dated May 14, 2009.

**Table 1 - Initial Measurement**

<b>For any AOA Transducer that, as of November 13, 2009 (the Effective Date of AD 2009-22-12), has Accumulated –</b>	<b>Do the Initial Inrush Current Measurement –</b>
Less than 6,500 total flight hours	Before the AOA transducer has accumulated 7,500 total flight hours.
More than or equal to 6,500 total flight hours but less than 7,500 total flight hours	Within 500 flight hours after November 13, 2009, but before the AOA transducer has accumulated 8,000 total flight hours.
More than or equal to 7,500 total flight hours	Within 250 flight hours after November 13, 2009.

(2) If, during any measurement required by paragraph (g)(1) of this AD, an AOA transducer is found to have an inrush current less than 1.60 amps ("degraded" transducer), before further flight replace the transducer with a new or serviceable transducer, in accordance with Part C of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-27-051, dated May 14, 2009. Do the measurement specified in paragraph (g)(1) of this AD for that replacement transducer at the times specified in paragraph (g)(2)(i) or (g)(2)(ii) of this AD.

(i) At the applicable time specified in Table 2 of this AD if the degraded transducer was replaced with a serviceable transducer that is not new; or

(ii) Within 2,000 flight hours after replacement if the degraded transducer was replaced with a new one.

(3) If, during any measurement required by paragraph (g)(1) of this AD, an AOA transducer is found to have an inrush current more than or equal to 1.60 amps, repeat the measurement specified in paragraph (g)(1) of this AD thereafter at intervals not to exceed the applicable interval specified in Table 2 of this AD.

**Table 2 - Repetitive Measurement Intervals**

<b>If the Last Inrush Current Measurement of the Serviceable AOA Transducer is -</b>	<b>Then Repeat the Measurement -</b>
More than or equal to 1.90 amps	Within 2,000 flight hours after the last measurement.
More than or equal to 1.80 amps but less than 1.90 amps	Within 1,500 flight hours after the last measurement.
More than or equal to 1.70 amps but less than 1.80 amps	Within 1,000 flight hours after the last measurement.
More than or equal to 1.60 amps but less than 1.70 amps	Within 500 flight hours after the last measurement.

**New Requirements of This AD**

(h) Within 6,000 flight hours after the effective date of this AD: Do an inspection to determine the serial number of the AOA transducer having P/N C16258AA, and to determine if the serial number has suffix "A," in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-27-053, Revision B, dated January 12, 2010.

(1) If the serial number is not specified in paragraph 1.A.(1) of Bombardier Service Bulletin 670BA-27-053, Revision B, dated January 12, 2010, no further action is required by this paragraph.

(2) If the serial number is specified in paragraph 1.A.(1) of Bombardier Service Bulletin 670BA-27-053, Revision B, dated January 12, 2010, and the serial number has a suffix "A," no further action is required by this paragraph.

(3) If the serial number is specified in paragraph 1.A.(1) of Bombardier Service Bulletin 670BA-27-053, Revision B, dated January 12, 2010, and the serial number does not have suffix "A," before further flight, replace the AOA transducer with a serviceable transducer, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-27-053, Revision B, dated January 12, 2010.

(i) As of the effective date of this AD, no person may install, on any airplane, an AOA transducer having P/N C16258AA with any serial number specified in paragraph 1.A.(1) of Bombardier Service Bulletin 670BA-27-053, Revision B, dated January 12, 2010, unless the serial number has a suffix "A."

(j) Inspections and replacements accomplished before the effective date of this AD, according to the service information specified in Table 3 of this AD, are considered acceptable for compliance with the corresponding actions specified in this AD.

**Table 3 – Credit Service Bulletins**

<b>Service Bulletin –</b>	<b>Revision –</b>	<b>Date –</b>
Bombardier Service Bulletin 670BA-27-053	Original	May 14, 2009
Bombardier Service Bulletin 670BA-27-053	A	July 7, 2009

## **FAA AD Differences**

Note 1: 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-2009-35, dated August 31, 2009; Bombardier Service Bulletin 670BA-27-051, dated May 14, 2009; and Bombardier Service Bulletin 670BA-27-053, Revision B, dated January 12, 2010; for related information.

## **Material Incorporated by Reference**

(m) You must use Bombardier Service Bulletin 670BA-27-051, dated May 14, 2009; and Bombardier Service Bulletin 670BA-27-053, Revision B, dated January 12, 2010; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of Bombardier Service Bulletin 670BA-27-053, Revision B, dated January 12, 2010, 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 Bombardier Service Bulletin 670BA-27-051, dated May 14, 2009, on November 13, 2009 (74 FR 55767, October 29, 2009).

(3) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; e-mail [thd.crj@aero.bombardier.com](mailto:thd.crj@aero.bombardier.com); Internet <http://www.bombardier.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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington on September 16, 2010.  
Robert D. Breneman,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



**2010-20-16 Airbus:** Amendment 39-16451. Docket No. FAA-2010-0478; Directorate Identifier 2008-NM-090-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective November 5, 2010.

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to Airbus Model A300 B2-1A, B2-1C, B4-2C, B2K-3C, B4-103, B2-203, and B4-203 airplanes; Model A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, and C4-605R Variant F airplanes; and Model A310-203, -204, -221, -222, -304, -322, -324, and -325 airplanes; all certified models, all serial numbers, certificated in any category; except airplanes on which Airbus Modification 13212 has been done in production or Airbus Service Bulletin A300-32-0453, A310-32-2135, or A300-32-6099 has been done in service.

**Subject**

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

**Reason**

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

Two cases of complete nose landing gear (NLG) shock absorber bolts failure were reported to the manufacturer. In both cases, the crew was unable to retract the gear and was forced to an In Flight Turn Back. In one case, the aircraft experienced a low speed runway excursion. The root cause of the bolts failure has been identified being due to a bolt(s) over-torque. The investigation has highlighted that the design of the NLG shock absorber was not tolerant to the over-torque, and an inspection plan has been developed to track any NLG shock absorber-to-main barrel attachment bolts status. The preliminary inspection plan, required by DGAC France Airworthiness Directive (AD) F-2004-075 and F-2004-076, has allowed limiting the number of findings: High at the initial inspection, it has decreased following the repetitive inspections.

This new [European Aviation Safety Agency (EASA)] AD retains the requirements of those ADs, which are superseded, and requires a repetitive torque check of the NLG shock absorber-to-main barrel attachment bolts with new thresholds and intervals. This new AD also refers to an optional modification as terminating action.

\* \* \* \* \*

The optional modification involves modifying the shock absorber-to-barrel attachment to increase over-torque tolerances. The actions to address the unsafe condition also include inspecting the NLG shock absorber-to-main barrel attachment bolts and corrective actions. The corrective actions include replacing bolts, screws, nuts, washers, and cotter pins; contacting Airbus for repair and doing the repair; and modifying the shock absorber; as applicable.

### Compliance

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

### Inspection and Corrective Action

(g) At the applicable time specified in paragraph (g)(1), (g)(2), or (g)(3) of this AD: Do a visual inspection to detect operational condition (i.e., free of corrosion and not deformed) and inspect rotation/torque of the NLG shock absorber-to-main barrel attachment bolts and do all applicable corrective actions, in accordance with the applicable Airbus all operators telex (AOT) identified in Table 1 of this AD. Do all applicable corrective actions before further flight. Thereafter, repeat the inspection at the applicable intervals, depending on inspection results and the corrective actions performed, as specified in the applicable Airbus AOT identified in Table 1 of this AD.

(1) For airplanes on which the NLG has been overhauled (the bolts have been removed) as of the effective date of this AD: Within 30 days or 1,000 flight cycles on the NLG after the effective date of this AD, whichever occurs later.

(2) For airplanes on which, as of the effective date of this AD, the NLG has accumulated less than 1,000 total flight cycles, and has not been overhauled (the bolts have never been removed), since manufacture of the NLG: Before the accumulation of 1,000 total flight cycles on the NLG, or within 30 days after the effective date of this AD, whichever occurs later.

(3) For airplanes on which, as of the effective date of this AD, the NLG has accumulated 1,000 or more total flight cycles, and has not been overhauled since new (the bolts have never been removed): Within 30 days after the effective date of this AD.

**Table 1 – Airbus All Operator Telexes**

<b>For Model -</b>	<b>Use Airbus All Operator Telex -</b>	<b>Dated -</b>
A300 series airplanes	A300-32A0447	April 22, 2004
A300 B4-600, B4-600R, and F4-600R Series Airplanes, and Model A300 C4-605R Variant F airplanes (Collectively called A300-600 series airplanes)	A300-32A6093	April 22, 2004
A310 series airplanes	A310-32A2132	April 22, 2004

### Torque Load Inspection and Corrective Action

(h) At the latest of the compliance times specified in paragraphs (h)(1), (h)(2), and (h)(3) of this AD, do an inspection of the torque load of the nuts of the NLG shock absorber-to-main barrel attachment bolts in accordance with the Accomplishment Instructions of the applicable Airbus

service bulletin listed in Table 2 of this AD. Depending on the torque load value found during the inspection, before further flight: Retighten the bolt(s) or replace the discrepant bolt(s), or replace all bolts, in accordance with the applicable Airbus service bulletin listed in Table 2 of this AD. Thereafter, repeat the torque load inspection at intervals not to exceed 3,200 flight cycles or 30 months time-in-service accumulated by the NLG, whichever occurs first.

(1) Within 3,200 flight cycles or 30 months since NLG's first flight, whichever occurs first.

(2) Within 3,200 flight cycles or 30 months accumulated by the NLG since installation of new bolts, whichever occurs first.

(3) Within 3,200 flight cycles or 30 months after the effective date of this AD, whichever occurs first.

**Table 2 - Service Information for Inspections**

<b>For Model -</b>	<b>Use Airbus Mandatory Service Bulletin -</b>	<b>Revision level -</b>	<b>Dated -</b>
A300 series airplanes	A300-32-0447	01	June 1, 2007
A300-600 series airplanes	A300-32-6093	01	June 1, 2007
A310 series airplanes	A310-32-2132	01	June 1, 2007

(i) After accomplishment of the initial inspection in accordance with paragraph (h) of this AD, as applicable, the repetitive inspections of paragraph (g) of this AD are no longer required.

### **Optional Terminating Action**

(j) For airplanes on which the modification of the shock absorber-to-barrel attachment has been done in accordance with the applicable service bulletin listed in Table 3 of this AD, the requirements of this AD are no longer required, as long as that modification remains installed.

**Table 3 – Service Information for Optional Terminating Action**

<b>For Model -</b>	<b>Use Airbus Service Bulletin -</b>	<b>Dated -</b>
A300 series airplanes	A300-32-0453	June 1, 2007
A300-600 series airplanes	A300-32-6099	June 1, 2007
A310 series airplanes	A310-32-2135	June 1, 2007

### **FAA AD Differences**

Note 1: 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, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601

Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-2125; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

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

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

### Related Information

(1) Refer to MCAI EASA Airworthiness Directive 2008-0052R1, dated June 30, 2008; and the service information identified in Tables 1, 2, and 3 of this AD; for related information.

### Material Incorporated by Reference

(m) You must use the applicable service information contained in Table 4 of this AD to do the actions required by this AD, unless the AD specifies otherwise. If you accomplish the optional terminating actions specified by this AD, you must use the applicable service information identified in Table 5 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 Airbus SAS–EAW (Airworthiness Office), 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; e-mail: [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet: <http://www.airbus.com>.

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

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

**Table 4 – Material Incorporated by Reference for Actions Required in this AD**

<b>Document</b>	<b>Revision</b>	<b>Date</b>
Airbus All Operator Telex A300-32A0447	Original	April 22, 2004
Airbus All Operator Telex A300-32A6093	Original	April 22, 2004
Airbus All Operator Telex A310-32A2132	Original	April 22, 2004
Airbus Mandatory Service Bulletin A300-32-0447, excluding Appendix 01	01	June 1, 2007

Airbus Mandatory Service Bulletin A300-32-6093, excluding Appendix 01	01	June 1, 2007
Airbus Mandatory Service Bulletin A310-32-2132, excluding Appendix 01	01	June 1, 2007

**Table 5 – Material Incorporated by Reference for the Optional Terminating Action in this AD**

<b>Airbus Service Bulletin -</b>	<b>Dated -</b>
A300-32-0453	June 1, 2007
A300-32-6099	June 1, 2007
A310-32-2135	June 1, 2007

Issued in Renton, Washington, on September 16, 2010.

Robert D. Breneman,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2010-20-17 Bombardier, Inc.:** Amendment 39-16452. Docket No. FAA-2010-0276; Directorate Identifier 2009-NM-144-AD.

**Effective Date**

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

**Affected ADs**

- (b) This AD supersedes AD 2004-22-08, Amendment 39-13836.

**Applicability**

- (c) This AD applies to all Bombardier, Inc. Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes, serial numbers 7003 and subsequent, certificated in any category.

Note 1: This AD requires revisions to certain operator maintenance documents to include new inspections. Compliance with these inspections is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by these inspections, the operator may not be able to accomplish the inspections described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance according to paragraph (l) of this AD. The request should include a description of changes to the required inspections that will ensure the continued operational safety of the airplane.

**Subject**

- (d) Air Transport Association (ATA) of America Code 21: Air conditioning.

**Reason**

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

Three cases of in-flight loss of cabin pressurization have been reported, resulting from failure of a bulkhead check valve in combination with failure of an air supply duct.

In addition to mandating inspection, rework and/or replacement of the air supply ducts, Airworthiness Directive (AD) CF-2003-05 (subsequently revised to CF-2003-05R1) [which corresponds to FAA AD 2004-22-08] mandated the incorporation of a 4 000 flight-hour repetitive inspection task for bulkhead check valves, Part Numbers (P/N) 92E20-3 and 92E20-4, into the approved maintenance schedule. However, this repetitive inspection task has since been superseded by a 3000 flight-hour periodic discard task for these bulkhead check valves.

This directive mandates revision of the approved maintenance schedule to incorporate the discard task for bulkhead check valves, P/N 92E20-3 and 92E20-4, and supersedes the instructions in Corrective Actions, Part A, of AD CF-2003-05R1, dated 7 February 2006.

## **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 2004-22-08, Amendment 39-13836:**

### **Service Information Clarifications**

(g) Paragraphs (g)(1), (g)(2), and (g)(3) of this AD pertain to the service information referenced in this AD.

(1) Although Bombardier Alert Service Bulletin A601R-21-053, Revision 'A,' dated January 28, 2003; and Bombardier Alert Service Bulletin A601R-21-054, dated November 8, 2001; specify to submit certain information to the manufacturer, this AD does not include such a requirement.

(2) Bombardier Alert Service Bulletin A601R-21-054, dated November 8, 2001, recommends sending all damaged check valves to the manufacturer for analysis; however, this AD does not include that requirement.

(3) Accomplishment of the actions specified in Bombardier Alert Service Bulletin A601R-21-053, dated November 8, 2001, before December 2, 2004 (the effective date of AD 2004-22-08), is considered acceptable for compliance with the applicable actions specified in this AD.

### **Repetitive Inspections/Related Corrective Actions**

(h) Within 500 flight hours after December 2, 2004: Do the detailed inspections and related corrective actions required by paragraphs (h)(1) and (h)(2) of this AD, per the Accomplishment Instructions of Bombardier Alert Service Bulletin A601R-21-053, Revision 'A,' dated January 28, 2003; and Bombardier Alert Service Bulletin A601R-21-054, dated November 8, 2001; as applicable.

(1) For airplanes having bulkhead check valves with part number (P/N) 92E20-3/-4, as identified in Bombardier Alert Service Bulletin A601R-21-054, dated November 8, 2001: Inspect the left- and right-hand bulkhead check valves for damage (cracking, breakage). If any damage is found, before further flight, replace the damaged valve. Repeat the inspection at intervals not to exceed 4,000 flight hours until the replacement required by paragraph (j) of this AD is done.

(2) For airplanes having serial numbers 7003 through 7067 inclusive, and 7069 through 7477 inclusive: Inspect the left- and right-hand air supply ducts of the rear bulkhead for damage (tearing, delamination, or cracking). If any damage is found, before further flight, either rework or replace the damaged air supply duct, which ends the inspections for that air supply duct only. If no damage is found, repeat the inspection thereafter at intervals not to exceed 500 flight hours until accomplishment of paragraph (i) of this AD.

Note 2: For the purposes of this AD, a detailed inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

## **Terminating Action for Repetitive Inspections of Air Supply Ducts**

(i) Except as required by paragraph (h)(2) of this AD, for airplanes having serial numbers 7003 through 7067 inclusive, and 7069 through 7477 inclusive: Within 5,000 flight hours after December 2, 2004, either rework or replace the left- and right-hand air ducts, as applicable, per the Accomplishment Instructions of Bombardier Alert Service Bulletin A601R-21-053, Revision 'A,' dated January 28, 2003; and Bombardier Alert Service Bulletin A601R-21-054, dated November 8, 2001; as applicable. Accomplishment of this paragraph ends the repetitive inspections required by paragraph (h)(2) of this AD.

### **New Requirements of This AD:**

#### **Actions and Compliance**

(j) For airplanes having serial numbers 7003 and subsequent: Within 60 days after the effective date of this AD, revise the Airworthiness Limitations section of the Instructions for Continued Airworthiness to include the information in Bombardier Temporary Revision (TR) 1-2-39, dated December 12, 2008, to Section 2–Systems and Powerplant Program, of Part 1 of the Bombardier CL-600-2B19 Maintenance Requirement Manual (MRM). This task requires replacement of the bulkhead check valves having P/N 92E20-3 or 92E20-4 at intervals not to exceed 3,000 flight hours. Operate the airplane thereafter according to the limitations and procedures in the TR.

(k) Thereafter, except as provided in paragraph (j) of this AD, no alternative replacement times or structural inspection intervals may be approved for this bulkhead check valve.

Note 3: The actions required by paragraph (j) of this AD may be done by inserting a copy of Bombardier TR 1-2-39, dated December 12, 2008, into the MRM, which introduces Task 21-51-21-13. When Bombardier Task 21-51-21-13 has been included in general revisions of the MRM, the general revisions may be inserted into Part 2 of the Airworthiness Limitations section of the MRM, provided the relevant information in the general revision is identical to that in the TR.

#### **FAA AD Differences**

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

#### **Other FAA AD Provisions**

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (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. Two AMOCs approved previously in accordance with AD 2004-22-08, Amendment 39-13836, are approved as AMOCs for the corresponding provisions of this AD. These two approved AMOCs

are identified in paragraphs (l)(1)(i) and (l)(1)(ii) of this AD. All other AMOCs approved previously in accordance with AD 2004-22-08, Amendment 39-13836, are not approved as AMOCs with this AD.

(i) An AMOC approved by the New York ACO on November 17, 2004, in response to Comair AMOC request memo, dated November 10, 2004.

(ii) An AMOC approved by the New York ACO on October 13, 2006, in response to Comair AMOC request memo, dated September 19, 2006.

(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

(m) Refer to MCAI Canadian Airworthiness Directive CF-2009-31, dated July 8, 2009; and the service information specified in Table 1 of this AD for related information.

**Table 1 – Related Information**

<b>Document</b>	<b>Revision</b>	<b>Date</b>
Bombardier TR 1-2-39 to Section 2 – Systems and Powerplant Program, of Part 1 of the Bombardier CL-600-2B19 MRM	Original	December 12, 2008
Bombardier Alert Service Bulletin A601R-21-053	‘A’	January 28, 2003
Bombardier Alert Service Bulletin A601R-21-054	Original	November 8, 2001

### Material Incorporated by Reference

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

**Table 2--Material Incorporated by Reference**

<b>Document</b>	<b>Revision</b>	<b>Date</b>
Bombardier Temporary Revision (TR) 1-2-39 to Section 2 – Systems and Powerplant Program, of Part 1 of the Bombardier CL-600-2B19 Maintenance Requirement Manual (MRM)	Original	December 12, 2008
Bombardier Alert Service Bulletin A601R-21-053	‘A’	January 28, 2003
Bombardier Alert Service Bulletin A601R-21-054	Original	November 8, 2001

(1) The Director of the Federal Register approved the incorporation by reference of Bombardier TR 1-2-39, dated December 12, 2008, to Section 2–Systems and Powerplant Program, of Part 1 of the Bombardier CL-600-2B19 MRM, 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 Bombardier Alert Service Bulletin A601R-21-053, Revision 'A,' dated January 28, 2003; and Bombardier Alert Service Bulletin A601R-21-054, dated November 8, 2001; on December 2, 2004 (69 FR 62807, October 28, 2004).

(3) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; e-mail [thd.crj@aero.bombardier.com](mailto:thd.crj@aero.bombardier.com); Internet <http://www.bombardier.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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on September 16, 2010.

Robert D. Breneman,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2010-20-19 Bombardier, Inc.:** Amendment 39-16454. Docket No. FAA-2010-0550; Directorate Identifier 2009-NM-124-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective November 5, 2010.

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to Bombardier, Inc. Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes, serial numbers 7305 through 8051 inclusive; Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, serial numbers 10003 through 10260 inclusive; and Model CL-600-2D15 (Regional Jet Series 705) airplanes and Model CL-600-2D24 (Regional Jet Series 900) airplanes, serial numbers 15001 through 15106 inclusive; certificated in any category.

**Subject**

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

**Reason**

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

Two cases of a crack on a "dry" ADG [air driven generator] (Hamilton Sundstrand part number in the 761339 series), in the aft area of the strut and generator housing assembly, have been reported on CL-600-2B19 aircraft. The same part is also installed on CL-600-2C10, -2D15 and -2D24 aircraft. Investigation determined that the crack was in an area of the strut where the wall thickness of the casting was below specification, due to a manufacturing anomaly in a specific batch of ADGs. Structural failure and departure of the ADG during deployment could possibly result in damage to the aircraft structure. If deployment was activated by a dual engine shutdown, ADG structural failure would also result in loss of hydraulics for the flight controls.

This [Transport Canada Civil Aviation (TCCA)] directive gives instructions to check the part number of the installed ADG and, for ADGs with a part number in the 761339 series, the serial numbers of the ADG and strut and generator housing assembly are also to be checked. If these serial numbers are within specified ranges \* \* \*, a one-time fluorescent penetrant inspection of the ADG strut is required [and replacement of the ADG if necessary].

Note: For ADGs with serial numbers in the \* \* \* specified ranges, subsequent fluorescent penetrant inspections are required after each scheduled in-flight or on-ground functional check of the ADG and also after each unscheduled in-flight ADG deployment. These inspection requirements are not mandated in this [TCCA] directive but are specified in the approved maintenance program.

## Compliance

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

## Actions

(g) Do the following actions.

(1) Within 1,000 flight hours after the effective date of this AD or before the first scheduled ADG functional test after the effective date of this AD, whichever occurs first, inspect to determine the part number of the installed ADG. A review of the airplane maintenance records is acceptable in lieu of this inspection if the part number can be conclusively determined from that review.

(i) If a Hamilton Sundstrand ADG having part number 1711405 is installed, the strut thickness is within specification and no further action is required by this AD.

(ii) If a Hamilton Sundstrand ADG having a part number in the 761339 series is installed, within 1,000 flight hours after the effective date of this AD or before the first scheduled ADG functional test after the effective date of this AD, whichever occurs first, inspect to determine the serial number of the ADG. A review of the airplane maintenance records is acceptable in lieu of this inspection if the serial number can be conclusively determined from that review.

(A) If the serial number of the ADG is 2000 or higher, the strut wall thickness is within specification and no further action is required by this AD.

(B) If the serial number of the ADG is in the range 0101 through 1999 and symbol "24-3" is marked in the serial number block of the identification plate, the strut wall thickness is within specification, no further action is required by this AD.

(C) If the serial number of the ADG is in the range 0101 through 1999 and the symbol "24-3" is not marked in the serial block of the identification plate, within 1,000 flight hours after the effective date of this AD or before the first scheduled ADG functional test after the effective date of this AD, whichever occurs first, inspect to determine the serial number of the strut and generator housing assembly. A review of the airplane maintenance records is acceptable in lieu of this inspection if the serial number can be conclusively determined from that review.

(1) If the serial number of the strut and generator housing assembly is in the range 0001 through 2503, do a fluorescent penetrant inspection in accordance with paragraph (g)(2) of this AD at the times specified in paragraph (g)(2) of this AD.

(2) If the serial number of the strut and generator housing assembly is 2504 or higher, the strut wall thickness is within specification and no further action is required by this AD.

(3) If the serial number of the strut and generator housing assembly is not inspected or it is not possible to determine the serial number, do a fluorescent penetrant inspection in accordance with paragraph (g)(2) of this AD at the times specified in paragraph (g)(2) of this AD.

(2) For ADGs having a strut and generator assembly identified in paragraph (g)(1)(ii)(C)(1) or (g)(1)(ii)(C)(3) of this AD: Within 1,000 flight hours after the effective date of this AD or before the first scheduled ADG functional test after the effective date of this AD, whichever occurs first, do a fluorescent penetrant inspection for cracking of the ADG strut, and if any crack is found, before

further flight, replace the ADG with a serviceable ADG, in accordance with the Accomplishment Instructions of Bombardier Alert Service Bulletin A601R-24-120, Revision C, dated April 20, 2009 (for Model CL-600-2B19 airplanes); or Bombardier Alert Service Bulletin A670BA-24-020, Revision C, dated April 20, 2009 (for Model CL-600-2C10, CL-600-2D15, and CL-600-2D24 airplanes).

(3) Fluorescent penetrant inspections accomplished before the effective date of this AD in accordance with any applicable service bulletin specified in Table 1 of this AD are considered acceptable for compliance with the corresponding fluorescent penetrant inspection specified in this AD.

**Table 1 – Credit Service Bulletins**

<b>Bombardier, Inc. Model –</b>	<b>Service Bulletin –</b>	<b>Revision –</b>	<b>Date –</b>
CL-600-2B19 airplanes	Bombardier Alert Service Bulletin A601R-24-120	Original	April 20, 2005
CL-600-2B19 airplanes	Bombardier Alert Service Bulletin A601R-24-120	A	December 1, 2005
CL-600-2B19 airplanes	Bombardier Alert Service Bulletin A601R-24-120	B	December 7, 2006
CL-600-2C10 airplanes and CL-600-2D24 airplanes	Bombardier Alert Service Bulletin A670BA-24-020	Original	April 20, 2005
CL-600-2C10 airplanes; and CL-600-2D15 and CL-600-2D24 airplanes	Bombardier Alert Service Bulletin A670BA-24-020	A	May 17, 2005
CL-600-2C10 airplanes; and CL-600-2D15 and CL-600-2D24 airplanes	Bombardier Alert Service Bulletin A670BA-24-020	B	December 7, 2006
CL-600-2B19 airplanes; CL-600-2C10 airplanes; and CL-600-2D15 and CL-600-2D24 airplanes	Hamilton Sundstrand Service Bulletin ERPS10AG-24-3	Original	April 14, 2005
CL-600-2B19 airplanes; CL-600-2C10 airplanes; and CL-600-2D15 and CL-600-2D24 airplanes	Hamilton Sundstrand Service Bulletin ERPS10AG-24-3	1	April 19, 2005
CL-600-2B19 airplanes; CL-600-2C10 airplanes; and CL-600-2D15 and CL-600-2D24 airplanes	Hamilton Sundstrand Service Bulletin ERPS10AG-24-3	2	November 14, 2006
Bombardier, Inc. CL-600-2B19 airplanes; CL-600-2C10 airplanes; and CL-600-2D15 and CL-600-2D24 airplanes	Hamilton Sundstrand Service Bulletin ERPS10AG-24-3	3	March 12, 2009

Note 1: Additional guidance on the ADGs specified in paragraphs (g)(1)(ii)(C)(1) and (g)(1)(ii)(C)(3) of this AD and the repetitive fluorescent penetrant inspections specified as part of the periodic ADG functional check procedure may be found in the applicable tasks identified in Table 2 of this AD. These tasks can be found in Part 2–Airworthiness Limitations, Appendix A–Certification Maintenance Requirements (CMR), of the Bombardier CL-600-2C10, CL-600-2D15, and CL-600-2D24 Maintenance Requirements Manual; and the Canadair CRJ Series Regional Jet Aircraft Maintenance Manual (AMM); as applicable.

**Table 2 – Guidance for the periodic ADG functional check procedure**

<b>Bombardier, Inc. Model –</b>	<b>Task Number –</b>
CL-600-2B19 airplanes	CMR Task C24-20-129-01 and AMM Task 24-23-01-720-803
CL-600-2C10 airplanes	CMR Task 24-23-00-102 and AMM Task 24-23-01-720-802
CL-600-2D15 and CL-600-2D24 airplanes	CMR Task 24-23-00-102 and AMM Task 24-23-01-720-802

Note 2: Additional guidance on the ADGs specified in paragraph (g)(1)(ii)(C)(1), and the fluorescent penetrant inspection necessary following each future unscheduled in-flight ADG deployment can be found in the tasks specified in Table 3 of this AD.

**Table 3 – Guidance for inspection following unscheduled in-flight ADG deployment**

<b>Bombardier, Inc. Model –</b>	<b>AMM Task –</b>
CL-600-2B19 airplanes, serial numbers 7305 through 8051 inclusive	05-51-19-210-801
CL-600-2C10 airplanes, serial numbers 10003 through 10260 inclusive	05-51-19-210-801
CL-600-2D15 and CL-600-2D24 airplanes, serial numbers 15001 through 15106 inclusive	05-51-19-210-801

Note 3: In Hamilton Sundstrand Service Bulletin ERPS10AG-24-3, the fluorescent penetrant inspection is referred to as a "Penetrant Check."

### **FAA AD Differences**

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

### **Other FAA AD Provisions**

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (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 not allowed.

### **Related Information**

(i) Refer to MCAI Canadian Airworthiness Directive CF-2009-27, dated June 8, 2009; Bombardier Alert Service Bulletin A601R-24-120, Revision C, dated April 20, 2009; and Bombardier Alert Service Bulletin A670BA-24-020, Revision C, dated April 20, 2009; for related information.

### **Material Incorporated by Reference**

(j) You must use Bombardier Alert Service Bulletin A601R-24-120, Revision C, dated April 20, 2009; or Bombardier Alert Service Bulletin A670BA-24-020, Revision C, dated April 20, 2009; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

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

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

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

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

Issued in Renton, Washington, on September 21, 2010.

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



**2010-20-22 Rolls-Royce Deutschland Ltd & Co KG (Formerly Rolls-Royce plc):** Amendment 39-16457. Docket No. FAA-2010-0301; Directorate Identifier 2009-NE-22-AD.

**Effective Date**

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

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Rolls-Royce Deutschland Ltd & Co KG (RRD) models Tay 620-15, Tay 650-15, and Tay 651-54 turbofan engines. These engines are installed on, but not limited to, Fokker F28 Mark 0070 and Mark 0100 airplanes and Boeing 727 series airplanes.

**Reason**

(d) Following a review of operational data of the Tay 651-54 engine, it has been found that the actual stress levels in the Tay 651-54 engine High Pressure Compressor (HPC) stages 1, 3, 6, 7 and 12 discs were higher than those originally assumed and therefore the approved lives needed to be reduced.

We are issuing this AD to prevent HPC stages 1, 3, 6, 7, and 12 discs from exceeding the approved reduced life limits, which could result in an uncontained failure of a disc and damage to the airplane.

**Actions and Compliance**

(e) Unless already done, within 30 days after the effective date of this AD, amend the approved Airworthiness Limitation Section to incorporate the new, reduced life limits as follows:

**For Tay 651-54 Engines**

(1) The maximum approved lives (MAL) of the High Pressure Compressor (HPC) rotor discs are reduced to the MALs specified in the following Table 1 of this AD:

**Table 1. Tay 651-54 Engine Reduced Disc MAL by Part Number**

<b>For</b>	<b>Part Number</b>	<b>the MAL is</b>
(i) HPC Stage 1 Disc	JR18049	18,800 cycles
(ii) HPC Stage 3 Disc	JR18743	18,100 cycles
(iii) HPC Stage 6 Disc	JR18748	19,300 cycles

(iv) HPC Stage 7 Disc	JR17365	17,300 cycles
(v) HPC Stage 12 Disc	JR31928	18,900 cycles

### For Tay 620-15 and Tay 650-15 Engines

(2) The MAL of certain HPC rotor discs are reduced. The affected disc serial numbers and the reduced MAL are defined in Rolls-Royce Deutschland Ltd & Co KG Alert Non-Modification Service Bulletin TAY-72-A1740, dated February 11, 2009.

(3) Thereafter, except as provided in paragraph (f) of this AD, no alternative replacement times may be approved for these parts.

### Other FAA AD Provisions

(f) Alternative Methods of Compliance (AMOCs): The Manager, Engine Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

### Related Information

(g) Refer to mandatory continuing airworthiness information European Aviation Safety Agency Airworthiness Directive 2009-0092, dated April 17, 2009, for related information.

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

### Material Incorporated by Reference

(i) You must use Rolls-Royce Deutschland Ltd & Co KG Alert Non-Modification Service Bulletin TAY-72-A1740, dated February 11, 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 Rolls-Royce Deutschland Ltd & Co KG; Eschenweg 11, D-15827 Blankenfelde-Mahlow, Germany; telephone +49 (0) 33 7086 1768; fax +49 (0) 33 7086 3356.

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

Issued in Burlington, Massachusetts, on September 24, 2010.

Francis A. Favara,  
Manager, Engine and Propeller Directorate,  
Aircraft Certification Service.



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**2010-21-02 Bombardier, Inc.:** Amendment 39-16462. Docket No. FAA-2010-0643; Directorate Identifier 2010-NM-030-AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective November 12, 2010.

**Affected ADs**

(b) None.

**Applicability**

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

(1) Bombardier, Inc. Model DHC-8-101, -102, -103, -106, -201, -202, -301, -311, and -315 airplanes, serial numbers 003 through 658 inclusive.

(2) Bombardier, Inc. Model DHC-8-400, -401, -402 airplanes, serial numbers 4001, 4003, 4004, 4006, and 4008 through 4187 inclusive.

**Subject**

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

**Reason**

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

The landing gear alternate extension system in the cockpit is accessible through an access panel located on the cockpit floor. There have been reports of failure of the access panel latch assembly as a consequence of repeated closure of the access panel involving the use of excessive force. Failure of the latch assembly can result in the access panel being jammed in the closed position, and require mechanical prying to open.

An undetected or uncorrected latch failure condition in the access panel can prevent immediate access to the landing gear alternate extension system by the flight crew during an emergency. \* \* \*

**Compliance**

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

## Actions

(g) Within 6,000 flight hours or 36 months after the effective date of this AD, whichever comes first: Replace the latch assembly of the access panel for the alternate extension system for the landing gear with a modified latch assembly, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-32-166, Revision B, dated March 2, 2010 (for Model DHC-8-100, DHC-8-200, and DHC-8-300 series airplanes); or Bombardier Service Bulletin 84-32-57, Revision A, dated June 15, 2009 (for Model DHC-8-400 series airplanes).

## Credit for Actions Accomplished in Accordance With Previous Service Information

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

**Table 1 – Previous service information**

<b>Bombardier Service Bulletin –</b>	<b>Revision –</b>	<b>Dated –</b>
8-32-166	Original	April 14, 2008
8-32-166	A	January 29, 2009
84-32-57	Original	April 30, 2008

## FAA AD Differences

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

## Other FAA AD Provisions

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

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

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to 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 Canadian Airworthiness Directive CF-2009-46, dated December 14, 2009; Bombardier Service Bulletin 8-32-166, Revision B, dated March 2, 2010; and Bombardier Service Bulletin 84-32-57, Revision A, dated June 15, 2009; for related information.

**Material Incorporated by Reference**

(k) You must use Bombardier Service Bulletin 84-32-57, Revision A, dated June 15, 2009; or Bombardier Service Bulletin 8-32-166, Revision B, dated March 2, 2010; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For service information identified in this AD, contact 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](mailto:thd.qseries@aero.bombardier.com); Internet <http://www.bombardier.com>.

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

(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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on September 23, 2010.

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



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**2010-21-03 McDonnell Douglas Corporation:** Amendment 39-16463. Docket No. FAA-2010-0639; Directorate Identifier 2009-NM-232-AD.

**Effective Date**

- (a) This AD becomes effective November 12, 2010.

**Affected ADs**

- (b) This AD supersedes AD 2008-09-04, Amendment 39-15484.

**Applicability**

(c) This AD applies to all McDonnell Douglas Model DC-8-31, DC-8-32, DC-8-33, DC-8-41, DC-8-42, and DC-8-43 airplanes; Model DC-8-51, DC-8-52, DC-8-53, and DC-8-55 airplanes; Model DC-8F-54 and DC-8F-55 airplanes; Model DC-8-61, DC-8-62, and DC-8-63 airplanes; Model DC-8-61F, DC-8-62F, and DC-8-63F airplanes; Model DC-8-71, DC-8-72, and DC-8-73 airplanes; and Model DC-8-71F, DC-8-72F, and DC-8-73F airplanes; certificated in any category.

Note 1: This AD requires revisions to certain operator maintenance documents to include new inspections. Compliance with these inspections is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by these inspections, the operator may not be able to accomplish the inspections described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance (AMOC) in accordance with paragraph (o) of this AD. The request should include a description of changes to the required inspections that will ensure the continued operational safety of the airplane.

**Subject**

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

**Unsafe Condition**

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

**Compliance**

(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 2008-09-04, With Revised Compliance Method**

### **Revise the Maintenance Program**

(g) Before December 16, 2008, revise the maintenance program to incorporate the information specified in Appendixes B, C, and D of the Boeing DC-8 Special Compliance Item Report, MDC-02K9030, Revision A, dated August 8, 2006.

### **No Reporting Requirement**

(h) Although the Boeing DC-8 Special Compliance Item Report, MDC-02K9030, Revision A, dated August 8, 2006, specifies to submit certain information to the manufacturer, this AD does not require that action.

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

(i) Except as provided by paragraph (m) of this AD, after accomplishing the applicable actions specified in paragraph (g) of this AD, no alternative inspections, inspection intervals, or CDCCLs may be used unless the inspections, intervals, or CDCCLs are approved as an AMOC in accordance with the procedures specified in paragraph (o) of this AD.

### **New Requirements of This AD**

#### **Revise the Maintenance Program**

(j) Within 30 days after the effective date of this AD, revise the maintenance program to incorporate the information required by paragraphs (j)(1), (j)(2), and (j)(3) of this AD.

(1) CDCCL 20-10, "DC-8 Float Switch Circuit" in Appendix B of Boeing DC-8 Special Compliance Item Report, MDC-02K9030, Revision C, dated January 5, 2010; or Revision D, dated June 9, 2010.

(2) ALI 30-1 "DC-8 Pneumatic System Decay Check" in Appendix C of Boeing DC-8 Special Compliance Item Report, MDC-02K9030, Revision C, dated January 5, 2010; or Revision D, dated June 9, 2010.

(3) ALI 28-1, "DC-8 Alternate and Center Auxiliary Tank Fuel Pump Control Systems Check," in Appendix C of Boeing DC-8 Special Compliance Item Report, MDC-02K9030, Revision C, dated January 5, 2010; or Revision D, dated June 9, 2010.

#### **Install the In-Line Fuses**

(k) For airplanes identified in Boeing Service Bulletin DC8-28-090, dated October 9, 2009: Within 60 months after the effective date of this AD, install the fuel tank float switch in-line fuses in the leading edges of the front spars of the left and right wings, in accordance with the Accomplishment Instructions of Boeing Service Bulletin DC8-28-090, dated October 9, 2009.

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

(l) After accomplishing the actions specified in paragraph (j) of this AD, no alternative inspections, inspection intervals, or CDCCLs may be used unless the inspections, intervals, or

CDCCLs are approved as an AMOC in accordance with the procedures specified in paragraph (o) of this AD.

(m) Revising the maintenance program to incorporate the information specified in Appendixes B, C, and D of the Boeing DC-8 Special Compliance Item Report, MDC-02K9030, Revision B, dated July 23, 2009; Revision C, dated January 5, 2010; or Revision D, dated June 9, 2010; is acceptable for compliance with the actions specified in paragraph (g) of this AD.

### **No Reporting Requirement**

(n) Although the Boeing DC-8 Special Compliance Item Report, MDC-02K9030, Revision B, dated July 23, 2009; Revision C, dated January 5, 2010; and Revision D, dated June 9, 2010; specify to submit certain information to the manufacturer, this AD does not require that action.

### **Alternative Methods of Compliance (AMOCs)**

(o)(1) The Manager, Los Angeles Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Samuel Lee, Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5262; fax (562) 627-5210.

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

### **Material Incorporated by Reference**

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

**Table 1 – All material incorporated by reference**

<b>Document</b>	<b>Revision</b>	<b>Date</b>
Boeing DC-8 Special Compliance Item Report, MDC-02K9030	A	August 8, 2006
Boeing DC-8 Special Compliance Item Report, MDC-02K9030	B	July 23, 2009
Boeing DC-8 Special Compliance Item Report, MDC-02K9030	C	January 5, 2010
Boeing DC-8 Special Compliance Item Report, MDC-02K9030	D	June 9, 2010
Boeing Service Bulletin DC8-28-090	Original	October 9, 2009

Boeing DC-8 Special Compliance Item Report, MDC-02K9030, Revision B, dated July 23, 2009, contains the following effective pages:

**List of Effective Pages:**

<b>Page Title/ Description</b>	<b>Page Number(s)</b>	<b>Revision Number</b>	<b>Date Shown on Page(s)</b>
Report Title Page	None shown	B	July 23, 2009
Index of Page Changes	ii, iii	B	None shown*
Table of Contents	iv, v	B	None shown*
Discussion	1	New	None shown*
Appendix A	A1-A4	New	None shown*
Appendix B	B1, B3, B4, B6-B12	New	None shown*
	B2, B5, B13-B24	B	None shown*
Appendix C	C1-C5	New	None shown*
	C6-C10	B	None shown*
Appendix D	D1	New	None shown*

Boeing DC-8 Special Compliance Item Report, MDC-02K9030, Revision C, dated January 5, 2010, contains the following effective pages:

**List of Effective Pages:**

<b>Page Title/ Description</b>	<b>Page Number(s)</b>	<b>Revision Number</b>	<b>Date Shown on Page(s)</b>
Report Title Page	None shown	C	January 5, 2010
Index of Page Changes	ii, iii	C	None shown*
Table of Contents	iv, v	C	None shown*
Discussion	1	C	None shown*
Appendix A	A1-A3	New	None shown*
	A4-A25	C	None shown*
Appendix B	B1, B3, B4, B6-B12	New	None shown*
	B2, B5, B13-B24	B	None shown*
Appendix C	C1-C5	New	None shown*
	C6-C10	B	None shown*
	C11-C14	C	None shown*
Appendix D	D1	New	None shown*

Boeing DC-8 Special Compliance Item Report, MDC-02K9030, Revision D, dated June 9, 2010, contains the following effective pages:

**List of Effective Pages:**

<b>Page Title/ Description</b>	<b>Page Number(s)</b>	<b>Revision Number</b>	<b>Date Shown on Page(s)</b>
Report Title Page	None shown	D	June 9, 2010
Attachment A	None shown	None shown	June 22, 2010
Index of Page Changes	ii	B	None shown*
	iii	C	None shown*
Table of Contents	iv, v	C	None shown*
Discussion	1	C	None shown*
Appendix A	A1-A3	New	None shown*
	A4-A25	C	None shown*
Appendix B	B1, B3, B6, B7, B9, B12	New	None shown*
	B2, B13-B24	B	None shown*
	B4, B5, B8, B10, B11	D	None shown*
Appendix C	C1-C5	New	None shown*
	C6-C10	B	None shown*
	C11-C14	C	None shown*
Appendix D	D1	New	None shown*

(\* The revision date of these documents is shown only on the title page of these documents.)

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

**Table 2 – New material incorporated by reference**

<b>Document</b>	<b>Revision</b>	<b>Date</b>
Boeing DC-8 Special Compliance Item Report, MDC-02K9030	B	July 23, 2009
Boeing DC-8 Special Compliance Item Report, MDC-02K9030	C	January 5, 2010
Boeing DC-8 Special Compliance Item Report, MDC-02K9030	D	June 9, 2010
Boeing Service Bulletin DC8-28-090	Original	October 9, 2009

(2) The Director of the Federal Register previously approved the incorporation by reference of Boeing DC-8 Special Compliance Item Report, MDC-02K9030, Revision A, dated August 8, 2006, on May 27, 2008 (73 FR 21523, April 22, 2008).

(3) For service information identified in this AD, contact Boeing Commercial Airplanes,

Attention: Data & Services Management, 3855 Lakewood Boulevard, MC D800-0019, Long Beach, California 90846-0001; telephone 206-544-5000, extension 2; fax 206-766-5683; e-mail [dse.boecom@boeing.com](mailto:dse.boecom@boeing.com); Internet <https://www.myboeingfleet.com>.

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

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

Issued in Renton, Washington, on September 23, 2010.

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



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**2010-21-04 The Boeing Company:** Amendment 39-16464. Docket No. FAA-2010-0552; Directorate Identifier 2009-NM-095-AD.

## Effective Date

(a) This AD becomes effective November 12, 2010.

## Affected ADs

(b) This AD supersedes AD 90-15-06, Amendment 39-6653; and AD 94-12-09, Amendment 39-8937.

## Applicability

(c) This AD applies to The Boeing Company Model 747-100, 747-200B, and 747-200F series airplanes, certificated in any category, as identified in Boeing Service Bulletin 747-53-2307, Revision 3, dated April 16, 2009.

## Subject

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

## Unsafe Condition

(e) This AD results from reports of fatigue cracking on modified airplanes. The Federal Aviation Administration is issuing this AD to detect and correct fatigue cracking and corrosion in the fuselage upper lobe skin panel lap joints, which could lead to the rapid decompression of the airplane and the inability of the structure to carry fail-safe loads.

## Compliance

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

## Restatement of Requirements of AD 94-12-09, With Revised Service Information

## Inspection

(g) Within 1,000 flight cycles after July 13, 1994 (the effective date of AD 94-12-09), and thereafter at the intervals specified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD, perform inspections at the upper lobe skin panel lap joints in accordance with Boeing Service Bulletin 747-53-2307, Revision 2, dated October 14, 1993; or Revision 3, dated April 16, 2009. After the effective date of this AD, only Revision 3 may be used.

(1) Perform a detailed external visual inspection to detect cracks and evidence of corrosion (bulging skin between fasteners, blistered paint, dished fasteners, popped rivet heads, or loose fasteners) in accordance with Boeing Service Bulletin 747-53-2307, Revision 2, dated October 14, 1993; or Revision 3, dated April 16, 2009. After the effective date of this AD, only Revision 3 may be used. Repeat that inspection thereafter at intervals not to exceed 2,000 flight cycles until the modification required by paragraph (k) of this AD is accomplished.

(2) Perform a high frequency eddy current (HFEC) inspection to detect cracks in the skin at the upper row of fasteners of the skin panel lap joints forward of body station (BS) 1000 in accordance with Boeing Service Bulletin 747-53-2307, Revision 2, dated October 14, 1993; or Revision 3, dated April 16, 2009. After the effective date of this AD, only Revision 3 may be used. Repeat that inspection thereafter at intervals not to exceed 4,000 flight cycles until the modification required by paragraph (k) of this AD is accomplished.

(3) Perform a HFEC inspection to detect cracks in the skin at the upper row of fastener holes of the skin panel lap joints aft of BS 1480 to 2360 in accordance with Boeing Service Bulletin 747-53-2307, Revision 2, dated October 14, 1993; or Revision 3, dated April 16, 2009. After the effective date of this AD, only Revision 3 may be used.

Repeat that inspection thereafter at intervals not to exceed 6,000 flight cycles until the modification required by paragraph (k) of this AD is accomplished.

(h) If any crack is found during any inspection required by paragraph (g) or (l) of this AD, or if any corrosion is found for which material loss exceeds 10 percent of the material thickness, accomplish paragraphs (h)(1) and (h)(2) of this AD in accordance with Boeing Service Bulletin 747-53-2307, Revision 2, dated October 14, 1993; or Revision 3, dated April 16, 2009. After the effective date of this AD, only Revision 3 may be used.

(1) Prior to further flight, repair any crack or corrosion found, in accordance with Boeing Service Bulletin 747-53-2307, Revision 2, dated October 14, 1993; or Revision 3, dated April 16, 2009. After the effective date of this AD, only Revision 3 may be used.

(2) Within 18 months after accomplishing the repair, accomplish the "full" modification described in Boeing Service Bulletin 747-53-2307, Revision 2, dated October 14, 1993; or Revision 3, dated April 16, 2009; for the remainder of any skin panel lap joint in which a crack is found, or in which corrosion is found that exceeds 10 percent of the material thickness, in accordance with Boeing Service Bulletin 747-53-2307, Revision 2, dated October 14, 1993; or Revision 3, dated April 16, 2009. After the effective date of this AD, only Revision 3 may be used.

(i) If no crack is found during any inspection required by paragraph (g) of this AD, but corrosion is found for which the material loss does not exceed 10 percent of the material thickness: Accomplish the actions specified in paragraphs (i)(1) and (i)(2) of this AD for the entire affected skin panel lap joint, in accordance with Boeing Service Bulletin 747-53-2307, Revision 2, dated October 14, 1993; or Revision 3, dated April 16, 2009. After the effective date of this AD, only Revision 3 may be used.

(1) Within 500 flight cycles after accomplishing the inspection during which the corrosion was found, and thereafter at intervals not to exceed 500 flight cycles until the "full" modification required by paragraph (i)(2) of this AD is accomplished: Perform a HFEC inspection to detect cracks of the corroded skin panel lap joint, in accordance with Boeing Service Bulletin 747-53-2307, Revision 2, dated October 14, 1993; or Revision 3, dated April 16, 2009. After the effective date of this AD, only Revision 3 may be used.

(2) Within 36 months after accomplishing the inspection during which the corrosion was found: Accomplish the "full" modification, in accordance with Boeing Service Bulletin 747-53-2307, Revision 2, dated October 14, 1993; or Revision 3, dated April 16, 2009. After the effective date of this AD, only Revision 3 may be used.

(j) The inspections required by paragraph (g) of this AD shall be performed by removing the paint and using an approved chemical stripper; or by ensuring that each fastener head is clearly visible.

(k) Except as provided in paragraph (m) of this AD, prior to the accumulation of 20,000 total flight cycles, or within the next 1,000 flight cycles after July 13, 1994, whichever occurs later: Accomplish the modification described in Boeing Service Bulletin 747-53-2307, Revision 2, dated October 14, 1993; or Revision 3, dated April 16, 2009; as a "full" modification of the skin panel lap joints at the locations specified in paragraphs (k)(1) and (k)(2) of this AD, as applicable, in accordance with Boeing Service Bulletin 747-53-2307, Revision 2, dated October 14, 1993; or Revision 3, dated April 16, 2009. After the effective date of this AD, only Revision 3 may be used. Accomplishment of this modification terminates the repetitive inspection requirements of paragraph (g) of this AD.

(1) For airplane line numbers 001 through 058, inclusive: Modify the skin panel lap joints at Stringer 12 (left and right), station 520 to 1,000; and Stringer 19 (left and right), station 520 to 740.

(2) For airplane line numbers 59 through 200, inclusive: Modify the skin panel lap joints at Stringer 12 (left and right), station 740 to 1,000; and Stringer 19 (left and right), station 520 to 740.

(l) For all airplanes: Perform an external HFEC inspection to detect skin cracks of any modified skin panel lap joints at the times specified in paragraphs (l)(1), (l)(2), and (l)(3) of this AD, as applicable, in accordance with Boeing Service Bulletin 747-53-2307, Revision 2, dated October 14, 1993; or Revision 3, dated April 16, 2009. As of the effective date of this AD, only Revision 3 may be used. Repeat that inspection thereafter at intervals not to exceed 3,000 flight cycles, except as required by paragraph (n) of this AD.

(1) For skin panel lap joints on which the "full" modification has been accomplished: Within 10,000 flight cycles after accomplishment of that modification.

(2) For skin panel lap joints on which the "optional" (partial) modification has been accomplished: Within 7,000 flight cycles after accomplishment of that modification.

(3) For skin panel lap joints having deep countersink fasteners located at Section 42 on which the "full" modification, as described in Boeing Service Bulletin 747-53-2307, dated December 21, 1989, has been accomplished: Within 5,000 flight cycles after accomplishment of that modification.

(m) In lieu of the "full" modification required by paragraph (k) of this AD, the "optional" (partial) modification described in Boeing Service Bulletin 747-53-2307, Revision 2, dated October 14, 1993; or Revision 3, dated April 16, 2009; may be accomplished for skin panels that have an outer thickness of 0.090 inches or less, and that do not have any cracks, corrosion, or an existing structural repair on the skin panel lap joint. After the effective date of this AD, only Revision 3 may be used. The "optional" (partial) modification shall not be accomplished at deep countersink fastener locations. Accomplishment of this modification terminates the repetitive inspection requirements of paragraph (g) of this AD.

## **New Requirements of This AD**

### **Post-Modification Inspection at Reduced Intervals**

(n) Repeat the inspection required by paragraph (l) of this AD at the earlier of the times specified in paragraphs (n)(1) and (n)(2) of this AD. Thereafter, repeat the inspection at intervals not to exceed 1,000 flight cycles.

(1) Within 3,000 flight cycles after the last inspection done in accordance with paragraph (l) of this AD.

(2) Within 1,000 flight cycles after the last inspection done in accordance with paragraph (1) of this AD or 500 flight cycles after the effective date of this AD, whichever occurs later.

### **Post-Repair Inspection for External Doubler Repair**

(o) For all airplanes: Do an internal surface HFEC inspection for cracking of the skin at any external doubler repairs greater than 40 inches in length (in the horizontal direction) within 1,000 flight cycles after the effective date of this AD, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 747-53-2307, Revision 3, dated April 16, 2009. Thereafter, perform that inspection at intervals not to exceed 3,000 flight cycles.

(p) If any cracking is found during any inspection required by paragraph (o) of this AD, repair in accordance with the Accomplishment Instructions of Boeing Service Bulletin 747-53-2307, Revision 3, dated April 16, 2009.

### **Alternative Methods of Compliance (AMOCs)**

(q)(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, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6437; fax (425) 917-6590. Or, e-mail information to 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

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

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

(4) AMOCs approved previously in accordance with AD 90-15-06, Amendment 39-6653; and AD 94-12-09, Amendment 39-8937; are approved as AMOCs for the corresponding provisions of this AD.

### **Material Incorporated by Reference**

(r) You must use Boeing Service Bulletin 747-53-2307, Revision 3, dated April 16, 2009, 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 Boeing Service Bulletin 747-53-2307, Revision 3, dated April 16, 2009, 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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on September 23, 2010.

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



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**2010-21-05 BAE Systems (Operations) Limited:** Amendment 39-16465. Docket No. FAA-2010-0474; Directorate Identifier 2009-NM-056-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective November 12, 2010.

**Affected ADs**

- (b) This AD supersedes AD 2008-13-02, amendment 39-15565.

**Applicability**

- (c) This AD applies to all BAE SYSTEMS (Operations) Limited Model 4101 airplanes, certificated in any category.

**Subject**

- (d) Air Transport Association (ATA) of America Code 61: Propellers/Propulsors.

**Reason**

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

During ground manoeuvring, prolonged operation with either engine in the restricted range between 82% and 90% RPM [revolutions per minute] will result in damage [e.g., cracking of the blade or hub] to the propeller assembly that could eventually result in the release of a propeller blade.

To correct this unsafe condition, EASA [European Aviation Safety Agency] AD 2007-0268 [which corresponds to FAA AD 2008-13-02, amendment 39-15565] was issued to require the installation of a Propeller Warning Placard and implementation of a corresponding Aircraft Flight Manual (AFM) limitation, instructing the flight crew to taxi with the condition lever at FLIGHT in order to minimise the time spent by the engines in the restricted range. BAE Systems has now developed a Propeller Speed Warning System, embodiment of which will allow taxiing with the condition lever at TAXI, through the introduction of a revised Flight Manual Limitation.

For the reasons described above, this EASA AD retains the requirements of EASA AD 2007-0268, which is superseded, and requires the installation of a Propeller Speed Warning System.

A released propeller blade could result in engine failure and loss of control of the airplane.

## **Compliance**

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

### **Restatement of Requirements of AD-2008-13-02**

#### **Actions**

(g) Within 90 days after July 24, 2008 (the effective date of AD 2008-13-02), unless already done, do the following actions.

(1) Replace the existing Propeller Limitations Placard in the cockpit with a new placard, in accordance with the Accomplishment Instructions of BAE Systems (Operations) Limited Service Bulletin J41-11-027, dated March 29, 2007.

(2) Revise the BAE Jetstream Series 4100 Flight Manual (FM) to include the information in BAE Jetstream Series 4100 General Amendment G12, approved January 2007; and BAE Jetstream Series 4100 Advance Amendment Bulletin 13, approved April 4, 2007. General Amendment G12 describes a rolling take-off technique and the reduced possibility of landing with ice contaminating the wings, and adds a Gross Height/Pressure Altitude Conversion Chart. Advance Amendment Bulletin 13 introduces procedures for placing the propeller condition levers in the Flight position during all ground maneuvering. Operate the airplane according to the procedures in General Amendment G12 and Advance Amendment Bulletin 13.

Note 1: This may be done by inserting copies of General Amendment G12 and Advance Amendment Bulletin 13 into the FM. When General Amendment G12 and Advance Amendment Bulletin 13 have been included in general revisions of the FM, the general revisions may be inserted in the FM, provided the relevant information in the general revision is identical to that in General Amendment G12 and Advance Amendment Bulletin 13.

### **New Requirements of This AD**

#### **Actions**

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

(1) Within 6 months after the effective date of this AD, install a Propeller Speed Warning System (Modification JM41674), in accordance with Section 2 of BAE Systems (Operations) Limited Aircraft Change Information Bulletin J41-61-014, Issue 7, dated August 17, 2009. Before further flight after modification, do the actions required in paragraphs (h)(1)(i) and (h)(1)(ii) of this AD.

(i) Remove the placard that was installed as required by paragraph (g)(1) of this AD.

(ii) Remove BAE Jetstream Series 4100 Advance Amendment Bulletin 13, approved April 4, 2007, from the FM.

(2) Within 6 months after the effective date of this AD, revise the BAE Jetstream Series 4100 FM to include information on introducing a propeller speed warning system, on airplanes that have Modification JM41674, using a method approved by the Manager, International Branch, ANM 116, Transport Airplane Directorate, FAA, or EASA (or its delegated agent).

Note 2: Guidance on revising the BAE Jetstream Series 4100 FM, as required by paragraph (h)(2) of this AD, can be found in BAE Jetstream Series 4100 Particular Amendment 111, approved December 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, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1175; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

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

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

## Related Information

(j) Refer to MCAI European Aviation Safety Agency (EASA) Airworthiness Directive 2009-0038, dated February 18, 2009; and the service information identified in Table 1 of this AD; for related information.

**Table 1 – Service information**

<b>Service Information</b>	<b>Date</b>
BAE Jetstream Series 4100 Advance Amendment Bulletin 13 to the Jetstream Series 4100 Flight Manual	April 4, 2007
BAE Jetstream Series 4100 General Amendment G12 to the Jetstream Series 4100 Flight Manual	January 2007
BAE Systems (Operations) Limited Aircraft Change Information Bulletin J41-61-014, Section 2, Issue 7	August 17, 2009
BAE Systems (Operations) Limited Service Bulletin J41-11-027	March 29, 2007

## Material Incorporated by Reference

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

**Table 2 – All material incorporated by reference**

<b>Service Information</b>	<b>Date</b>
BAE Jetstream Series 4100 Advance Amendment Bulletin 13 to the Jetstream Series 4100 Flight Manual	April 4, 2007
BAE Jetstream Series 4100 General Amendment G12 to the Jetstream Series 4100 Flight Manual	January 2007
BAE Systems (Operations) Limited Aircraft Change Information Bulletin J41-61-014, Section 2, Issue 7	August 17, 2009
BAE Systems (Operations) Limited Service Bulletin J41-11-027	March 29, 2007

BAE Systems (Operations) Limited Aircraft Change Information Bulletin J41-61-014, Section 2, Issue 7, contains the following effective pages:

**List of Effective Pages**

<b>Page Title/Description</b>	<b>Page Number(s)</b>	<b>Issue Number</b>	<b>Date Shown on Page(s)</b>
Section 2, Installer Instructions	15–50	7	August 17, 2009

(Section 1 of this document (pages 1-14) is not included.)

(1) The Director of the Federal Register approved the incorporation by reference of BAE Systems (Operations) Limited Aircraft Change Information Bulletin J41-61-014, Section 2, Issue 7, dated August 17, 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 3 of this AD on July 24, 2008 (73 FR 34847, June 19, 2008).

**Table 3 – Material previously incorporated by reference**

<b>Service Information</b>	<b>Date</b>
BAE Jetstream Series 4100 Advance Amendment Bulletin 13 to the Jetstream Series 4100 Flight Manual	April 4, 2007
BAE Jetstream Series 4100 General Amendment G12 to the Jetstream Series 4100 Flight Manual	January 2007
BAE Systems (Operations) Limited Service Bulletin J41-11-027	March 29, 2007

(3) For service information identified in this AD, contact BAE Systems (Operations) Limited, Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom; telephone +44 1292 675207; fax +44 1292 675704; e-mail RApublications@baesystems.com; Internet <http://www.baesystems.com/Businesses/RegionalAircraft/index.htm>.

(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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on September 23, 2010.

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



**2010-21-06 Airbus:** Amendment 39-16466. Docket No. FAA-2010-0644; Directorate Identifier 2009-NM-204-AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective November 12, 2010.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Airbus Model A300 B4-601, B4-603, B4-620, B4-622, B4-605R, and B4-622R airplanes; Model A300 C4-605R Variant F airplanes; and Model A300 F4-605R and F4-622R airplanes; certificated in any category; on which modification 12699 has not been completed.

**Subject**

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

**Reason**

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

Within the framework of the A300-600 aircraft Service Life Extension programme (42,500 FC [flight cycles]), it has been concluded that a reinforcement of the junction of frame bases at FR48, FR49 and FR51 to FR53 is necessary to enable the aircraft to reach the Extended Service Goal (ESG).

\* \* \* [Failure of the frame base], if not corrected, could affect the structural integrity of the fuselage.

\* \* \* \* \*

**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) Except for airplanes identified in paragraph (h) of this AD: At the time specified in paragraph (g)(1) or (g)(2) of this AD, as applicable, reinforce the junctions of frame bases FR48, FR49, FR51,

FR52 and FR53, which includes doing a dimensional measurement of the holes, doing an eddy current inspection of the holes for cracking, doing a cold expansion of the holes, installing fasteners, and doing applicable corrective actions, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A300-53-6161, Revision 02, dated October 16, 2009. If cracking is found, before further flight, contact Airbus for repair instructions and do the repair.

(1) For airplanes on which Airbus Modification No. 03986 has been accomplished as of the effective date of this AD: Before the accumulation of 37,600 total flight cycles.

(2) For airplanes on which Airbus Modification No. 03986 has not been accomplished as of the effective date of this AD: Before the accumulation of 28,900 total flight cycles.

(h) For airplanes modified prior to the effective date of this AD in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A300-53-6161, dated February 13, 2009; or Revision 01, dated June 24, 2009: Within 10 days after the effective date of this AD, prior to doing any cold working process, determine if an eddy current inspection for cracking has been done, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A300-53-6161, Revision 02, dated October 16, 2009. If the eddy current inspection has not been done, or it cannot be proven that it has been done, contact Airbus for instructions and accomplish those instructions within 100 flight cycles after the effective date of this AD.

### **FAA AD Differences**

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

### **Other FAA AD Provisions**

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

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

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

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

### **Related Information**

(j) Refer to MCAI European Aviation Safety Agency Airworthiness Directive 2009-0188, dated August 26, 2009; and Airbus Mandatory Service Bulletin A300-53-6161, Revision 02, dated October 16, 2009; for related information.

## **Material Incorporated by Reference**

(k) You must use Airbus Mandatory Service Bulletin A300-53-6161, Revision 02, including Appendix 01, dated October 16, 2009 to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For service information identified in this AD, contact Airbus SAS–EAW (Airworthiness Office), 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; e-mail: [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet <http://www.airbus.com>.

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

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

Issued in Renton, Washington, on September 23, 2010.

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



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**2010-21-17 Pratt & Whitney:** Amendment 39-16477. Docket No. FAA-2010-0514; Directorate Identifier 2010-NE-02-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective November 12, 2010.

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to Pratt & Whitney (PW) JT8D-9, -9A, -11, -15, -17, and -17R turbofan engines. These engines are installed on, but not limited to, Boeing 727 series, Boeing 737-200 series and McDonnell Douglas DC-9 airplanes.

**Unsafe Condition**

(d) This AD results from reports of failed fan blades. We are issuing this AD to prevent high-cycle fatigue cracking at the blade root, which could result in uncontained failures of first stage fan blades and damage to the airplane.

**Compliance**

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

**Initial Overhaul**

(f) For engines where the cycles-in-service (CIS) since the last overhaul of the fan blades are known, overhaul the total set of stage 1 fan blades at the first shop visit after 4,000 CIS since the last total stage 1 fan blade overhaul, or the next shop visit after the effective date of this AD, whichever occurs later. Guidance on performing a fan blade overhaul can be found in Pratt & Whitney JT8D Maintenance Advisory Notice No. MAN-JT8D-2-06, and the Engine Manual Chapter/Section 72-33-21, Inspection 00.

(g) For engines where the CIS since the last overhaul of the fan blades are unknown, overhaul the total set of stage 1 fan blades at the next shop visit after the effective date of this AD. Guidance on performing a fan blade overhaul can be found in Pratt & Whitney JT8D Maintenance Advisory Notice No. MAN-JT8D-2-06, and the Engine Manual Chapter/Section 72-33-21, Inspection 00.

## **Repetitive Overhaul**

(h) Thereafter, overhaul the total set of stage 1 fan blades at the first shop visit after 4,000 CIS since the last total stage 1 fan blade overhaul. Guidance on performing a fan blade overhaul can be found in Pratt & Whitney JT8D Maintenance Advisory Notice No. MAN-JT8D-2-06, and the Engine Manual Chapter/Section 72-33-21, Inspection 00.

## **Definitions**

(i) For the purpose of this AD, a shop visit is the induction of an engine into the shop for maintenance involving the separation of pairs of major mating engine flanges (lettered flanges), except that the separation of engine flanges solely for the purposes of transporting the engine without subsequent engine maintenance does not constitute an engine shop visit.

## **Alternative Methods of Compliance**

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

## **Related Information**

(k) Contact James Gray, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: james.e.gray@faa.gov; telephone (781) 238-7742; fax (781) 238-7199, for more information about this AD.

(l) Pratt & Whitney JT8D Maintenance Advisory Notice No. MAN-JT8D-2-06, dated November 20, 2006, pertains to the subject of this AD. Contact Pratt & Whitney, 400 Main St., East Hartford, CT 06108; telephone (860) 565-7700; fax (860) 565-1605, for a copy of this service information.

## **Material Incorporated by Reference**

(m) None.

Issued in Burlington, Massachusetts, on October 1, 2010.  
Peter A. White,  
Assistant Manager, Engine and Propeller Directorate,  
Aircraft Certification Service.