



**FEDERAL AVIATION ADMINISTRATION  
AIRWORTHINESS DIRECTIVES  
LARGE AIRCRAFT**

**BIWEEKLY 2010-18**

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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

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### Biweekly 2010-03

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

### Biweekly 2010-04

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

### Biweekly 2010-05

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

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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

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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

### Biweekly 2010-12

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

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<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



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**2010-16-11 McDonnell Douglas Corporation:** Amendment 39-16388. Docket No. FAA-2010-0433; Directorate Identifier 2009-NM-117-AD.

**Effective Date**

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

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to McDonnell Douglas Corporation Model MD-90-30 airplanes, certificated in any category, as identified in Boeing Service Bulletin MD90-57-016, Revision 2, dated April 28, 2006.

**Subject**

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

**Unsafe Condition**

(e) This AD results from reports of the retract cylinder support fitting for the main landing gear (MLG) failing during gear extension, and subsequently damaging the hydraulic system. The Federal Aviation Administration is issuing this AD to prevent corrosion and damage that could compromise the integrity of the retract cylinder support fitting for the MLG, which could adversely affect the airplane's safe landing.

**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 Actions**

(g) Before the accumulation of 30,000 total flight hours, or within 15,000 flight hours after the effective date of this AD, whichever occurs later, do a general visual inspection of the retract cylinder support fitting for the MLG and the mating bore in the MLG trunnion fitting for corrosion, install bushings and bearings without cadmium plating in the bore, and do all applicable corrective actions, in accordance with Configuration 1 of the Accomplishment Instructions of Boeing Service Bulletin MD90-57-016, Revision 2, dated April 28, 2006. Do all applicable corrective actions before further flight.

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 ensure visual access to all surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or droplight and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

(h) Doing a general visual inspection, installing bushings and bearings, and doing all applicable corrective actions is also acceptable for compliance with the requirements of paragraph (g) of this AD if done before the effective date of this AD in accordance with the Accomplishment Instructions of Boeing Service Bulletin MD90-57-016, Revision 1, dated October 26, 2005.

(i) Doing a general visual inspection, installing bushings and bearings, and doing all applicable corrective actions is also acceptable for compliance with the requirements of paragraph (g) of this AD if done before the effective date of this AD in accordance with the Accomplishment Instructions of Boeing Service Bulletin MD90-57-016, dated September 18, 2002, provided that before the accumulation of 30,000 total flight hours, or within 15,000 flight hours after the effective date of this AD, whichever occurs later, electroless nickel fittings are installed, and bushings and bearings without cadmium plating in the bore are installed in accordance with the Accomplishment Instructions of any of the service bulletins listed in Table 1 of this AD.

**Table 1 – Service Information**

<b>Document</b>	<b>Revision</b>	<b>Date</b>	<b>Incorporated by reference</b>
Boeing Service Bulletin MD90-57-016	1	October 26, 2005	No.
Boeing Service Bulletin MD90-57-016	2	April 28, 2006	Yes.

### **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: Roger Durbin, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5233; 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 Boeing Commercial Airplanes Organization Designation Authorization (ODA) who 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 14 CFR 25.571, Amendment 45, and the approval must specifically refer to this AD.

**Material Incorporated by Reference**

(k) You must use Boeing Service Bulletin MD90-57-016, Revision 2, dated April 28, 2006, 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](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 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 July 28, 2010.

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



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**2010-17-01 Pratt & Whitney Canada Corp. (formerly Pratt & Whitney Canada, Inc.):**  
Amendment 39-16391. Docket No. FAA-2010-0246; Directorate Identifier 2010-NE-16-AD.

**Effective Date**

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

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Pratt & Whitney Canada Corp. PW617F-E turbofan engines with fuel/oil heat exchanger (FOHE) part number (P/N) 35C4540-01 installed. These engines are installed on, but not limited to, Empresa Brasileira de Aeronáutica S.A (EMB) 500 airplanes.

**Reason**

(d) This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

A PW617F-E engine powered twin engined aircraft had recently experienced an uncommanded power reduction on one of its engines. Investigation showed that the Fuel Filter Bypass Valve poppet in the FOHE on that engine had worn through the housing seat, allowing unfiltered fuel and debris to contaminate the Fuel Metering Unit, resulting in fuel flow drop and subsequent power reduction.

Pratt & Whitney Canada Corp. issued an Alert Service Bulletin (ASB) No. PW600-72-A66019 to inspect and replace any discrepant valve with the same type new valve. The inspection results confirmed that failure of a worn through poppet is dormant and it can affect both engines at the same time that could result in an unsafe condition on PW617F-E powered aircraft.

We are issuing this AD to prevent uncommanded power reduction, which could result in the inability to continue safe flight and safe landing.

## **Actions and Compliance**

(e) Unless already done, replace the FOHE fuel filter bypass poppet valve with a larger fuel filter bypass poppet valve within 25 hours of the effective date of the AD. Use paragraph 3.A. of the Accomplishment Instructions of Pratt & Whitney Canada Corp. ASB No. PW600-72-A66021, Revision 1, dated January 7, 2010, to do the replacement.

## **Previous Credit**

(f) A fuel filter bypass poppet valve replacement performed before the effective date of this AD using Pratt & Whitney Canada Corp. ASB No. PW600-72-A66021, dated November 23, 2009, satisfies the replacement requirement of this AD.

## **Alternative Methods of Compliance**

(g) 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**

(h) Refer to MCAI Transport Canada Airworthiness Directive CF-2010-02, dated January 20, 2010, for related information.

(i) Contact James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park; Burlington, MA 01803; e-mail: james.lawrence@faa.gov; telephone (781) 238-7176; fax (781) 238-7199, for more information about this AD.

## **Material Incorporated by Reference**

(j) You must use Pratt & Whitney Canada Corp. ASB No. PW600-72-A66021, Revision 1, dated January 7, 2010 to do the replacement required by this AD.

(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 Contact Pratt & Whitney Canada Corp., 1000 Marie-Victorin, Longueuil, Quebec, Canada, J4G 1A1; telephone 800-268-8000; fax 450-647-2888; Web site: <http://www.pwc.ca>.

(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 July 30, 2010.  
Peter A. White,  
Assistant Manager, Engine and Propeller Directorate,  
Aircraft Certification Service.



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**2010-17-02 Airbus:** Amendment 39-16392. Docket No. FAA-2010-0041; Directorate Identifier 2009-NM-218-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective September 22, 2010.

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to the Airbus airplanes identified in paragraphs (c)(1), (c)(2), and (c)(3) of this AD; certificated in any category; all manufacturer serial numbers; with pitot probes having Goodrich part number (P/N) 0851HL, serial numbers 267328 through 270714 inclusive.

- (1) Model A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes.  
(2) Model A340-211, -212, -213, -311, -312, and -313 airplanes.  
(3) Model A340-541 and -642 airplanes.

**Subject**

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

**Reason**

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

Several reports have recently been received of loose pneumatic quick-disconnect unions on Goodrich pitot probes P/N (part number) 0851HL. These may be the result of mis-torque of the affected unions at equipment manufacturing level. Investigations are still on-going to determine the root cause(s).

This condition, if not corrected, could lead to an air leak, resulting in incorrect total pressure measurement and consequent erroneous Calibrated Airspeed (CAS)/MACH parameters delivered by the Air Data Computer (ADC).

As a precautionary measure, this AD requires a torque check of the pneumatic quick-disconnect union on certain Goodrich P/N 0851HL pitot probes and corrective action, depending on findings.

\* \* \* \* \*

This AD [MCAI] is revised in order to exclude from the torque-check required by paragraph (4) of this AD those pitot probes marked with a red torque check-mark.

Loss or fluctuation of indicated airspeed could result in misleading information provided to the flightcrew. If the quick-disconnect union fitted on the pitot probe is not adequately torqued, the corrective action includes applying torque.

### 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 time specified, do the following actions.

(1) Within 14 days after the effective date of this AD: Perform a torque check of the pneumatic quick-disconnect union of each pitot probe having Goodrich P/N 0851HL, serial numbers 267328 through 270714 inclusive, to determine if the torque is adequate, in accordance with the instructions of the applicable service information specified in Table 1 of this AD. Before further flight, do all applicable corrective actions in accordance with the instructions of the applicable service information specified in Table 1 of this AD.

**Table 1 – Airbus Service Information**

<b>Airbus All Operators Telex –</b>	<b>Revision –</b>	<b>Dated –</b>
A330-34A3235 (for Model A330-201, -202, -203, -223, -243, -301, -302, -303, -321,-322, -323, -341, -342, and -343 airplanes)	02	March 1, 2010
A340-34A4241 (for Model A340-211, -212, -213, -311, -312, and -313 airplanes)	02	March 1, 2010
A340-34A5074 (for Model A340-541 and -642 airplanes)	02	March 1, 2010

(2) Within 30 days after performing the torque check required by paragraph (g)(1) of this AD, or within 30 days after the effective date of this AD, whichever occurs later: Report the torque check results to Airbus, including no findings, as specified in the instructions of the applicable service information listed in Table 1 of this AD.

(3) Actions done before the effective date of this AD, in accordance with the applicable service information listed in Table 2 of this AD, are acceptable for compliance with the corresponding requirements in paragraph (g)(1) of this AD.

**Table 2 – Airbus Credit Service Information**

<b>Airbus All Operators Telex –</b>	<b>Revision –</b>	<b>Dated –</b>
A330-34A3235	Original	September 10, 2009
A330-34A3235	1	September 21, 2009
A340-34A4241	Original	September 10, 2009
A340-34A4241	1	September 21, 2009
A340-34A5074	Original	September 10, 2009
A340-34A5074	1	September 21, 2009

(4) As of the effective date of this AD, no person may install a pitot probe having Goodrich P/N 0851HL, serial numbers 267328 through 270714 inclusive, on any airplane, unless the actions required by paragraph (g)(1) of this AD have been done; or an intact red torque check mark is visible on the interface of the pneumatic quick disconnect union and the union mount.

### **FAA AD Differences**

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

Where the MCAI includes a compliance time of "5 days," we have determined that a compliance time of "within 14 days after the effective date of the AD" is appropriate. The manufacturer and EASA agree with this expansion in compliance time.

### **Other FAA AD Provisions**

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

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

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

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

## Related Information

(i) Refer to MCAI Airworthiness Directive 2009-0202R1, dated April 15, 2010; and the service information specified in Table 1 of this AD; for related information.

## Material Incorporated by Reference

(j) You must use the service information contained in Table 3 of this AD, as applicable, to do the actions required by this AD, unless the AD specifies otherwise. (The document number, revision level, and date of these documents are listed only on the first page of these documents; no other page of these documents contains this information.)

**Table 3 – Material incorporated by reference**

<b>Airbus All Operators Telex –</b>	<b>Revision –</b>	<b>Dated –</b>
A330-34A3235	02	March 1, 2010
A340-34A4241	02	March 1, 2010
A340-34A5074	02	March 1, 2010

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

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

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

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

Issued in Renton, Washington, on July 30, 2010.

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



**2010-17-03 The Boeing Company:** Amendment 39-16393. Docket No. FAA-2010-0762; Directorate Identifier 2010-NM-011-AD.

## **Effective Date**

(a) This airworthiness directive (AD) is effective September 2, 2010.

## **Affected ADs**

(b) None.

## **Applicability**

(c) This AD applies to The Boeing Company Model 767-300 series airplanes, certificated in any category; as identified in Boeing Alert Service Bulletin 767-57A0122, dated October 22, 2009.

## **Subject**

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

## **Unsafe Condition**

(e) This AD results from fuel system reviews conducted by the manufacturer. The Federal Aviation Administration is issuing this AD to chafing of the wiring bundle, which could result in a high-energy short and, consequently, a possible ignition source in the center auxiliary fuel tank.

## **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, install a tetrafluoroethylene (TFE 2X) sleeve and a wire bundle clamp, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 767-57A0122, dated October 22, 2009.

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

(h)(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: Margaret Langsted, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6500; fax (425) 917-6590. Information may be e-mailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

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

### **Material Incorporated by Reference**

(i) You must use Boeing Alert Service Bulletin 767-57A0122, dated October 22, 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 July 30, 2010.

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



**2010-17-04 Airbus:** Amendment 39-16394. Docket No. FAA-2010-0763; Directorate Identifier 2009-NM-253-AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective September 2, 2010.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Airbus Model A380-841, -842, and -861 airplanes, certificated in any category, all serial numbers.

**Subject**

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

**Reason**

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

A crack has been found on the Droop Nose (DN) 1 master sidestay bracket on the inboard leading edge of an Airbus A380 flight test aeroplane.

In case of failure of the master bracket, the sub-master bracket would be able to sustain limit loads but not ultimate loads.

This condition, if not detected and corrected, could lead to a DN failure which would affect the structural integrity of that wing area.

\* \* \* \* \*

**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) Before the accumulation of 1,250 total flight cycles or within 30 days after the effective date of this AD, whichever occurs later, do a detailed visual inspection (DVI) of the left-hand and right-hand DN 1 master sidestay brackets to detect cracks, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A380-57-8019, dated August 5, 2009.

(1) If no cracks are found, repeat the inspection at intervals not to exceed 1,250 flight cycles.

(2) If any crack is found, before further flight, replace the cracked DN 1 master sidestay bracket and perform a DVI for cracks of the associated DN 1 sub-master sidestay bracket, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A380-57-8019, dated August 5, 2009.

(i) If no crack is found during the inspection specified in paragraph (g)(2) of this AD, repeat the inspection of the DN 1 master sidestay brackets specified in paragraph (g) of this AD at intervals not to exceed 1,250 flight cycles.

(ii) If any crack is found during the inspection specified in paragraph (g)(2) of this AD, before further flight, contact Airbus and repair in accordance with a method approved by the Manager, International Branch, ANM 116, Transport Airplane Directorate, FAA, or the European Aviation Safety Agency (EASA) (or its delegated agent).

(h) Replacement of cracked DN 1 master sidestay brackets, as specified in paragraph (g)(2) of this AD, is not a terminating action for the repetitive inspections required by 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: Shahram Daneshmandi, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1112; 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 EASA Airworthiness Directive 2009-0213, dated October 8, 2009; and Airbus Mandatory Service Bulletin A380-57-8019, dated August 5, 2009; for related information.

## **Material Incorporated by Reference**

(k) You must use Airbus Mandatory Service Bulletin A380-57-8019, dated August 5, 2009, as applicable, to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For service information identified in this AD, contact Airbus SAS–EANA (Airworthiness Office); 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 562 110 253; Fax +33 562 110 307; e-mail [account.airworth-A380@airbus.com](mailto:account.airworth-A380@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 July 30, 2010.

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



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**2010-17-05 The Boeing Company:** Amendment 39-16395. Docket No. FAA-2008-0269; Directorate Identifier 2007-NM-320-AD.

**Effective Date**

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

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to The Boeing Company Model 737-600, -700, -700C, -800, and -900 series airplanes, certificated in any category; as identified in Boeing Alert Service Bulletin 737-28A1201, Revision 1, dated May 28, 2009.

**Unsafe Condition**

(d) This AD results from fuel system reviews conducted by the manufacturer. We are issuing this AD to prevent pump housing burn-through due to electrical arcing, which could create a potential ignition source inside a fuel tank. This condition, in combination with flammable fuel vapors, could result in a fuel tank explosion and consequent loss of the airplane.

**Compliance**

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

**Replacement or Installation**

(f) Within 60 months after the effective date of this AD, do the actions required in paragraph (f)(1) or (f)(2) of this AD.

(1) Replace the power control relays that are located in the R18, R19, R20, R21, R54, and R55 positions in the P91 and P92 power distribution panels for the fuel boost and override pumps with new, improved relays, part number KDAG-X4F-001, having a ground fault interrupter (GFI) feature, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-28A1201, Revision 1, dated May 28, 2009.

(2) Install and maintain TDG Aerospace universal fault interrupters (UFIs) using Supplemental Type Certificate ST02079LA.

**Note 1:** Boeing Alert Service Bulletin 737-28A1201, Revision 1, dated May 28, 2009, refers to Honeywell Service Bulletin 1151932-24-61 and Honeywell Service Bulletin 1151934-24-62, both

Revision 5, both dated May 25, 2009, as additional sources of guidance for replacement of the power control relays in the P91 and P92 power distribution panels.

(g) Actions done before the effective date of this AD in accordance with Boeing Alert Service Bulletin 737-28A1201, dated February 19, 2007, are acceptable for compliance with the requirements of paragraph (f) of this AD, provided that Revision 5 of Honeywell Service Bulletins 1151932-24-61 and 1151934-24-62, both dated May 25, 2009, are used as additional sources of guidance.

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

(h)(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, 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**

(i) You must use Boeing Alert Service Bulletin 737-28A1201, Revision 1, dated May 28, 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 July 27, 2010.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2010-19696 Filed 8-17-10; 8:45 am]

BILLING CODE 4910-13-P



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**2010-17-07 Airbus:** Amendment 39-16399. Docket No. FAA-2010-0278; Directorate Identifier 2009-NM-255-AD.

## Effective Date

(a) This airworthiness directive (AD) becomes effective September 22, 2010.

## Affected ADs

(b) None.

## Applicability

(c) This AD applies to Airbus Model A330-223, -321, -322, and -323 airplanes; certificated in any category; all manufacturer serial numbers.

## Subject

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

## Reason

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

During accomplishment of Damage Tolerant–Airworthiness Limitation Item task 712106-01-01 from A330 ALS Part 2, an A330 operator found a Fluorescent Penetrant Inspection (FPI) indication in the head of the shank fillet radius in one of the Pratt & Whitney (PW) forward (FWD) engine mount pylon bolts.

Investigation has confirmed that this FPI indication was due to a quality manufacturing process issue which led to a bolt non-conformance and is also applicable to aft ward (AFT) mount pylon bolts.

Dual-bolt fractures could lead to inability for mount assembly to sustain loads which may lead to an engine mount failure and consequently to engine separation from the aeroplane during flight, which would constitute an unsafe condition.

This AD requires a one time detailed visual inspection of the FWD and AFT mount pylon bolts on all A330 aeroplanes fitted with PW engines (8 bolts per engine) and replacement of any affected bolt.

## 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 a detailed inspection to determine the part number, serial number, and lot number of the forward and aft mount pylon bolts on both engines, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-71-3020, dated June 10, 2009. Inspect at the later of the times specified in paragraphs (g)(1) and (g)(2) of this AD.

(1) Before the accumulation of 8,000 total flight cycles or 24,000 total flight hours since first flight of the airplane, whichever occurs first.

(2) Within 24 months after the effective date of this AD.

(h) If the identified part number, serial number, or lot number corresponds to suspect bolts identified in Pratt & Whitney Service Bulletin PW4G-100-71-35, Revision 1, dated December 4, 2009, before further flight remove the affected bolt and replace with a serviceable bolt, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-71-3020, dated June 10, 2009. Identifying part numbers, serial numbers or lot numbers before the effective date of this AD according to Pratt & Whitney Service Bulletin PW4G-100-71-35, dated March 14, 2008, is considered acceptable for compliance with the corresponding action specified in this AD.

(i) If the bolt part number, serial number, or lot number is unreadable, before further flight, remove the affected bolt and replace with a serviceable bolt, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-71-3020, dated June 10, 2009.

(j) As of the effective date of this AD, no person may install any forward or aft mount pylon bolt on any airplane, unless this bolt has been identified as a non-suspect bolt, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-71-3020, dated June 10, 2009.

(k) Although Airbus Mandatory Service Bulletin A330-71-3020, dated June 10, 2009, specifies to submit certain information to the manufacturer, this AD does not include that requirement.

## **FAA AD Differences**

**Note 1:** This AD differs from the MCAI and/or service information as follows: Although the MCAI or service information tells you to submit information to the manufacturer, paragraph (k) of this AD specifies that such submittal is not required.

## **Other FAA AD Provisions**

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

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

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are

considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

### **Related Information**

(m) Refer to MCAI European Aviation Safety Agency Airworthiness Directive 2009-0240, dated November 5, 2009; Airbus Mandatory Service Bulletin A330-71-3020, dated June 10, 2009; and Pratt & Whitney Service Bulletin PW4G-100-71-35, Revision 1, dated December 4, 2009; for related information.

### **Material Incorporated by Reference**

(n) You must use Airbus Mandatory Service Bulletin A330-71-3020, excluding Appendix 1, dated June 10, 2009; and Pratt & Whitney Service Bulletin PW4G-100-71-35, Revision 1, dated December 4, 2009; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

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

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

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

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

Issued in Renton, Washington, on August 4, 2010.

Stephen P. Boyd,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2010-19839 Filed 8-17-10; 8:45 am]

BILLING CODE 4910-13-P



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**2010-17-10 Rolls-Royce plc:** Amendment 39-16402. Docket No. FAA-2009-1157; Directorate Identifier 2009-NE-26-AD.

## Effective Date

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

## Affected ADs

- (b) None.

## Applicability

(c) This AD applies to Rolls-Royce plc 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 model turbofan engines. These engines are installed on, but not limited to, Boeing 747 series and Lockheed L-1011 series airplanes.

## Reason

- (d) This AD results from:

Several low pressure turbine (LPT) shafts have been found with cracks originating from the rear cooling air holes. The cracks were found at normal component overhaul, by the standard Magnetic Particle Inspection (MPI) technique defined in the associated engine manual. The cracks have been found to initiate from corrosion pits. Propagation of a crack from the rear cooling air holes may result in shaft failure and subsequently in an uncontained Low Pressure Turbine failure. For the reasons stated above, this AD requires the inspection of the affected engines' LPT shafts and replacement of the shaft, as necessary.

We are issuing this AD to detect cracks, initiated by corrosion pits, originating from the rear cooling air holes, which could result in shaft failure and subsequently in an uncontained failure of the LPT and damage to the airplane.

## Actions and Compliance

- (e) Unless already done, do the following actions.

### Initial Inspection Requirements

(1) At the next engine shop visit after the effective date of this AD when the LPT shaft is completely disassembled to piece-part level, inspect the LPT shaft using paragraphs 3.A.(1)(a) through 3.A.(4)(l) of the accomplishment instructions of Rolls-Royce Service Bulletin RB.211-72-AF336, dated October 24, 2007.

### Repetitive Inspection Requirements

(2) Thereafter, reinspect the LPT shaft using paragraphs 3.A.(1)(a) through 3.A.(4)(l) of the accomplishment instructions of Rolls-Royce Service Bulletin RB.211-72-AF336, dated October 24, 2007 and the following schedule in Table 1 of this AD:

**Table 1 – Repetitive Inspection Interval by Engine Model**

<b>Engine Model</b>	<b>Maximum Time Between Inspections (engine cycles)</b>
(i) RB211-22B Series, all models.	3,500.
(ii) RB211-524B4-D-02.	4,000.
(iii) RB211-524D4-19, RB211-524D4-39, RB211-524D4-B-19, RB211-524D4-B-39, RB211-524D4X-19 and RB211-524D4X-B-19.	At the next engine shop visit after the last inspection.

### Remove Parts With Cracks

(3) Remove cracked LPT shafts, found using paragraphs (e)(1) or (e)(2) of this AD, from service before further flight.

### Definitions

(4) 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 pairs of major mating engine flanges. The separation of engine flanges solely for the purposes of transportation without subsequent engine maintenance does not constitute an engine shop visit.

### Alternative Methods of Compliance (AMOCs)

(f) 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 MCAI EASA Airworthiness Directive 2007-0310 R1, dated January 8, 2008, for related information.

(h) Contact Alan Strom, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: alan.strom@faa.gov; telephone (781) 238-7143; fax (781) 238-7199, for more information about this AD.

## **Material Incorporated by Reference**

(i) You must use Rolls-Royce Service Bulletin RB.211-72-AF336, dated October 24, 2007, to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For service information identified in this AD, contact Rolls-Royce plc, P.O. Box 31, Derby, DE24 8BJ, United Kingdom; telephone 044 1332 242424; fax 044 1332 249936.

(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 August 5, 2010.

Peter A. White,  
Assistant Manager, Engine and Propeller Directorate,  
Aircraft Certification Service.



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**2010-17-11 Dowty Propellers (formerly Dowty Aerospace; Dowty Rotol Limited; and Dowty Rotol):** Amendment 39-16403. Docket No. FAA-2009-0776; Directorate Identifier 2009-NE-32-AD.

**Effective Date**

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

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Dowty Propellers R408/6-123-F/17 model propellers. These propellers are installed on, but not limited to, Bombardier, Inc. (formerly de Havilland Canada) models DHC-8-400, DHC-8-401, and DHC-8-402 series airplanes.

**Reason**

(d) This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. We are issuing this AD to prevent an in-flight double generator failure, which could result in reduced controllability of the airplane.

**Actions and Compliance**

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

(1) For R408/6-123-F/17 model propellers with a hub, actuator, and backplate assembly line-replaceable unit serial numbers below DAP0347, do the following initial sealant application within 5,000 flight hours (FH) after the effective date of this AD:

(i) Apply sealant between the bus bar assemblies and the backplate assembly.

(ii) Use paragraph 3 of the Accomplishment Instructions of Dowty Propellers Alert Service Bulletin No. D8400-61-A66, Revision 5, dated June 16, 2010, to do the sealant application.

(2) Thereafter, for all R408/6-123-F/17 model propellers, re-apply sealant as specified in paragraphs (e)(1)(i) through (e)(1)(ii) within every additional 10,000 FH.

**Installation Prohibition**

(3) After modification of all propellers on an airplane as required by paragraph (e)(1) of this AD, do not install any Dowty R408/6-123-F/17 propeller on that airplane unless sealant has been applied between the bus bar assemblies and the backplate assembly of that propeller using the requirements of this AD.

## **FAA AD Differences**

(f) None.

## **Previous Credit**

(g) Sealant application performed before the effective date of this AD using Dowty Propellers Service Bulletin No. D8400-61-66, dated February 9, 2007, Revision 1, dated May 4, 2007, Alert Service Bulletin No. D8400-61-A66, Revision 2, dated August 19, 2009, Revision 3, dated November 10, 2009, Revision 4, dated January 19, 2010, or Revision 5, dated June 16, 2010, satisfies the initial sealant application requirement of this AD.

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

(h) The Manager, Boston Aircraft 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**

(i) Refer to EASA AD 2009-0114, dated May 28, 2009, for related information.

(j) Contact Michael Schwetz, Aerospace Engineer, Boston Aircraft Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: michael.schwetz@faa.gov; telephone (781) 238-7761; fax (781) 238-7170, for more information about this AD.

## **Material Incorporated by Reference**

(k) You must use Dowty Propellers Alert Service Bulletin No. D8400-61-A66, Revision 5, dated June 16, 2010, to do the actions required by this AD.

(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 Dowty Propellers, Anson Business Park, Cheltenham Road East, Gloucester GL 29QN, UK; telephone: 44 (0) 1452 716000; fax: 44 (0) 1452 716001.

(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 August 5, 2010.

Peter A. White,  
Assistant Manager, Engine and Propeller Directorate,  
Aircraft Certification Service.



**2010-17-12 Rolls-Royce Deutschland Ltd & Co KG (RRD) (formerly Rolls-Royce plc, Derby, England):** Amendment 39-16404. Docket No. FAA-2007-0037; Directorate Identifier 2007-NE-41-AD.

**Effective Date**

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

**Affected ADs**

(b) This AD supersedes AD 2009-22-01, Amendment 39-16052.

**Applicability**

(c) This AD applies to:

- (1) RRD model Tay 650-15 turbofan engines that have a serial number listed in Table 1, Table 2, or Table 3 of this AD;
- (2) All model Tay 651-54 turbofan engines; and
- (3) Engines with a low-pressure (LP) turbine module M05300AA installed. These engines are installed on, but not limited to, Fokker F.28 Mark 0070 and 0100 airplanes, and Boeing 727 airplanes modified in accordance with Supplemental Type Certificate No. SA8472SW.

**Table 1 – Affected Tay 650-15 Engines by Serial Number (Carried Forward From AD 2008-10-14 and AD 2009-22-01)**

<b>Engine Serial Number</b>
17251
17255
17256
17273
17275
17280
17281
17282
17300
17301
17327

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17332
17365
17393
17437
17443
17470
17520
17521
17523
17539
17542
17556
17561
17562
17563
17580
17581
17612
17618
17635
17637
17645
17661
17686
17699
17701
17702
17736
17737
17738
17739

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17741
17742
17808

**Table 2 – Affected Tay 650-15 Engines by Serial Number (Carried Forward From AD 2009-22-01)**

<b>Engine Serial Number</b>
17249
17303
17358
17370
17425
17426
17433
17438
17445
17446
17460
17474
17478
17490
17491
17517
17518
17522
17534
17535
17536
17538
17540
17541
17552
17553

17585
17613
17723
17724
17740
17759
17760
17807

**Table 3 – Affected Tay 650-15 Engines by Serial Number (Added New in This AD)**

<b>Engine Serial Number</b>
17344
17360
17376
17413
17537
17694
17698
17707
17716
17718
17719
17731
17756
17757

**Reason**

(d) Strip results from some of the engines listed in the applicability section of this AD revealed excessively corroded low-pressure turbine disks stage 2 and stage 3. The corrosion is considered to be caused by the environment in which these engines are operated. Following a life assessment based on the strip findings it is concluded that inspections for corrosion attack are required. The action specified by this European Aviation Safety Agency (EASA) AD 2008-0122 was intended to avoid a failure of a low-pressure turbine disk stage 2 or stage 3 due to potential corrosion problems which

could result in uncontained engine failure and damage to the airplane. It has been later realized that the same unsafe condition could potentially occur on more serial numbers for the Tay 650-15 engines and on the Tay 651-54 engines. This AD, superseding EASA AD 2008-0122, retaining its requirements, is therefore issued to expand the Applicability in adding further engine serial numbers for the Tay 650-15 engines and in adding the Tay 651-54 engines.

We are issuing this AD to detect corrosion that could cause the stage 2 or stage 3 disk of the LP turbine to fail and result in an uncontained failure of the engine.

### **Actions and Compliance**

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

(1) Prior to accumulating 11,700 flight cycles (FC) since new of disk life, and thereafter at intervals not exceeding 11,700 FC of disk life, inspect the LP turbine disks stage 2 and stage 3 for corrosion using RRD Alert Service Bulletin (ASB) No. TAY-72-A1524, Revision 3, dated March 24, 2010.

(2) For engines with disk life that already exceed 11,700 FC on the effective date of this AD, perform the inspection within 90 days after the effective date of this AD.

(3) When, during any of the inspections as required by paragraphs (e)(1) and (e)(2) of this AD, corrosion is found, replace the affected parts. RRD TAY 650 Engine Manual–E-TAY-3RR, Tasks 72-52-23-200-000 and 72-52-24-200-000, and RRD TAY 651 Engine Manual–E-TAY-5RR, Tasks 72-52-23-200-000 and 72-52-24-200-000, contain guidance on performing the inspection for corrosion and rejection criteria.

### **Previous Credit**

(f) Initial inspections done before the effective date of this AD on LP turbine disks stage 2 and stage 3 listed in Table 1 and Table 2 of this AD using RRD ASB No. TAY-72-A1524, Revision 1, dated September 1, 2006, or Revision 2, dated June 13, 2008, comply with the initial inspection requirements specified in this AD.

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

(g) 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**

(h) Refer to EASA AD 2010-060R1, dated April 14, 2010, for related information. Contact Rolls-Royce Deutschland Ltd & Co KG, Eschenweg 11, Dahlwitz, 15827 Blankenfelde-Mahlow, Germany; phone: 011 49 (0) 33-7086-1883; fax: 011 49 (0) 33-7086-3276, for a copy of the service information referenced in this AD.

(i) 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; phone: (781) 238-7758; fax (781) 238-7199, for more information about this AD.

**Material Incorporated by Reference**

(j) You must use RRD Alert Service Bulletin No. TAY-72-A1524, Revision 3, dated March 24, 2010, to do the inspections required by this AD.

(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, Dahlwitz, 15827 Blankenfelde-Mahlow, Germany; phone: 011 49 (0) 33-7086-1883; fax: 011 49 (0) 33-7086-3276.

(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 August 6, 2010.

Peter A. White,  
Assistant Manager, Engine and Propeller Directorate,  
Aircraft Certification Service.



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**2010-17-13 Rolls-Royce plc (Formerly Rolls-Royce Limited):** Amendment 39-16405. Docket No. FAA-2010-0521; Directorate Identifier 2009-NE-21-AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective September 22, 2010.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Rolls-Royce plc (RR) model RB211-524C2-19 and RB211-524C2-B-19 turbofan engines. These engines are installed on, but not limited to, Boeing 747 series airplanes.

**Reason**

(d) A number of LPT casings have been found cracked during engine shop visit. Cracking of the LPT casing reduces the capability of the casing to contain debris in the event of an LPT stage 1 blade failure. Therefore, blade failure in an engine with a cracked LPT casing may result in release of uncontained high-energy debris.

We are issuing this AD to detect cracks in the low-pressure turbine (LPT) casings, which could result in the release of uncontained high-energy debris in the event of a stage 1 blade failure. Uncontained high-energy debris could result in damage to the airplane.

**Actions and Compliance**

(e) Unless already done, do the following actions:

**Initial Inspection Requirements**

(1) Perform a fluorescent penetrant inspection (FPI) before the life of the LPT casing has reached 4,500 cycles-since-new (CSN) or within 4,500 cycles-since-last inspection (CSLI) or within 500 cycles after the effective date of this AD, whichever occurs later. You can find guidance on performing the FPI in RR Alert Service Bulletin (ASB) RB.211-72-AG076, dated November 13, 2008.

**Repetitive Inspection Requirements**

(2) Thereafter, perform an FPI at intervals not exceeding 4,500 CSLI. You can find guidance on performing the FPI in Rolls-Royce plc ASB RB.211-72-AG076, dated November 13, 2008.

### **Remove Parts With Cracks**

(3) Remove cracked LPT casings, found using paragraphs (e)(1) or (e)(2) of this AD, from service before further flight.

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

(f) 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 MCAI EASA AD 2009-0083, dated April 16, 2009, and Rolls-Royce plc ASB No. RB.211-72-AG076, dated November 13, 2008, for related information. Contact Rolls-Royce plc, P.O. Box 31, Derby, DE24 8BJ, United Kingdom; telephone 011 44 1332 242424; fax 011 44 1332 249936, for a copy of this service information.

(h) Contact Alan Strom, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: alan.strom@faa.gov; telephone (781) 238-7143; fax (781) 238-7199, for more information about this AD.

### **Material Incorporated by Reference**

(i) None.

Issued in Burlington, Massachusetts, on August 6, 2010.

Peter A. White,

Assistant Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 2010-20353 Filed 8-17-10; 8:45 am]

BILLING CODE 4910-13-P



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**2010-17-17 Bombardier, Inc.:** Amendment 39-16411. Docket No. FAA-2010-0482; Directorate Identifier 2009-NM-225-AD.

**Effective Date**

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

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to Bombardier, Inc. Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes, certificated in any category, serial numbers 7003 through 7990 inclusive, and 8000 and subsequent.

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 (h)(1) 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 27: Flight controls.

**Reason**

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

There have been several Stick Pusher Capstan Shaft failures causing severe degradation of the stick pusher function. This directive is issued to revise the first flight of the day check of the stall protection system to detect degradation of the stick pusher function. It also introduces a new repetitive maintenance task to limit exposure to dormant failure of the stick pusher capstan shaft.

Dormant loss or severe degradation of the stick pusher function could result in 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.

## **Actions**

(g) Do the following actions.

(1) Within 30 days after the effective date of this AD, revise the Limitations section of the Canadair Regional Jet Airplane Flight Manual (AFM) CSP A-012 to include the information in Canadair Regional Jet Temporary Revision (TR) RJ/178-1, dated March 8, 2010; as specified in the TR. The Canadair Regional Jet TR RJ/178-1, dated March 8, 2010, introduces procedures for performing a stall protection system test. Operate the airplane according to the limitations and procedures in the Canadair Regional Jet TR RJ/178-1, dated March 8, 2010.

Note 2: This may be done by inserting a copy of Canadair Regional Jet TR RJ/178-1, dated March 8, 2010, into the Canadair Regional Jet AFM CSP A-012. When this Canadair Regional Jet TR has been included in general revisions of the Canadair Regional Jet AFM, the general revisions may be inserted in the Canadair Regional Jet AFM, provided the relevant information in the general revision is identical to that in the Canadair Regional Jet TR.

(2) Within 30 days after the effective date of this AD, revise Appendix A—Certification Maintenance Requirements of Part 2 of the Bombardier CL-600-2B19 Maintenance Requirements Manual (MRM) by incorporating the information in Bombardier TR 2A-43, dated May 7, 2008; as specified in Bombardier TR 2A-43. The initial compliance time for the new MRM task identified in Bombardier TR 2A-43 is at the later of the times specified in paragraphs (g)(2)(i) and (g)(2)(ii) of this AD. Thereafter, except as provided by paragraph (h)(1) of this AD, no alternative task intervals may be used. Bombardier TR 2A-43, dated May 7, 2008, introduces procedures for a function check of the stick pusher capstan.

(i) Prior to the accumulation of 5,000 total flight hours.

(ii) Within 500 flight hours after the effective date of this AD.

Note 3: The actions required by paragraph (g)(2) of this AD may be done by inserting a copy of Bombardier TR 2A-43, dated May 7, 2008, into Appendix A—Certification Maintenance Requirements of Part 2 of the Bombardier CL-600-2B19 MRM. When this Bombardier TR has been included in general revisions of the Bombardier CL-600-2B19 MRM, the Bombardier CL-600-2B19 TR may be removed from the MRM, provided the relevant information in the general revision is identical to that in Bombardier CL-600-2B19 TR 2A-43, dated May 7, 2008.

## **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: We are not allowing 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).

### **Related Information**

(i) Refer to MCAI Canadian Airworthiness Directive CF-2009-36, dated September 2, 2009; Bombardier CL-600-2B19 TR 2A-43, dated May 7, 2008, to Appendix A—Certification Maintenance Requirements of Part 2 of the Bombardier CL-600-2B19 MRM; and Canadair Regional Jet TR RJ/178-1, dated March 8, 2010, to the Canadair Regional Jet AFM CSP A-012; for related information.

### **Material Incorporated by Reference**

(j) You must use Bombardier Temporary Revision (TR) 2A-43, dated May 7, 2008, to Appendix A—Certification Maintenance Requirements of Part 2 of the Bombardier CL-600-2B19 Maintenance Requirements Manual; and Canadair Regional Jet TR RJ/178-1, dated March 8, 2010, to the Canadair Regional Jet Airplane Flight Manual CSP A-012; 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 August 12, 2010.  
Ali Bahrami,  
Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



**2010-18-01 Empresa Brasileira de Aeronautica S.A. (EMBRAER):** Amendment 39-16414.  
Docket No. FAA-2010-0799; Directorate Identifier 2010-NM-157-AD.

**Effective Date**

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

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model ERJ 170-100 LR, -100 STD, -100 SE, 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 airplanes; and Model ERJ 190-200 STD, -200 LR, and -200 IGW airplanes; certificated in any category, all serial numbers.

**Subject**

(d) Air Transport Association (ATA) of America Code 49: Airborne auxiliary power.

**Reason**

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

It has been found the possibility of right hand (RH) engine compressor stall after the Auxiliary Power Unit (APU) becomes the active bleed source for the left side.

The most critical condition identified is:

- Both engines close to idle (e.g.: descent phase); and
- APU running; and
- APU bleed button pushed in.

In this condition, if the left hand (LH) engine fails, the APU bleed valve and the crossbleed valve may be both in the open position for a few seconds, [which] may lead to a backpressure in RH engine depending on APU bleed pressure. Such backpressure may cause an RH engine compressor stall, culminating in a dual engine failure.

\* \* \* \* \*

## **Compliance**

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

## **Actions**

(g) Within 14 days after the effective date of this AD, revise the Limitations section of the applicable airplane flight manual (AFM) to include the information in EMBRAER Operational Bulletin 170-001/09, Revision 1, dated February 10, 2010, as specified in the operational bulletin. This operational bulletin introduces limitations for the use of APU bleed.

Note 1: This may be done by inserting a copy of EMBRAER Operational Bulletin 170-001/09, Revision 1, dated February 10, 2010, into the AFM. When this operational bulletin has been included in general revisions of the AFM, the general revisions may be inserted in the AFM, provided the relevant information in the general revision is identical to that in the operational bulletin, and the operational bulletin can be removed.

## **FAA AD Differences**

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

## **Other FAA AD Provisions**

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Cindy Ashforth, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-2768; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

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

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

**Related Information**

(i) Refer to MCAI Brazilian Airworthiness Directives 2010-07-02 and 2010-07-03, both effective July 31, 2010; and EMBRAER Operational Bulletin 170-001/09, Revision 1, dated February 10, 2010; for related information.

**Material Incorporated by Reference**

(j) You must use EMBRAER Operational Bulletin 170-001/09, Revision 1, dated February 10, 2010, to do the actions required by this AD, unless the AD specifies otherwise.

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

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

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

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

Issued in Renton, Washington, on August 13, 2010.

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



**2010-18-03 Dassault-Aviation:** Amendment 39-16416. Docket No. FAA-2010-0800; Directorate Identifier 2010-NM-162-AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective September 8, 2010.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Dassault-Aviation Model FALCON 7X airplanes, certificated in any category, all serial numbers except those on which Dassault-Aviation Modification M724 is embodied.

**Subject**

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

**Reason**

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

"Several in service events related to various electrical systems, have led to the discovery of a common root cause: a leakage failure mode of Transient Voltage Suppressor (TVS) diodes used on Power Distribution Control Units (PDCU) cards or Generator Control Unit (GCU) cards in the Primary Power Distribution Boxes (PPDB). Due to such TVS diode failure mode, operation of some electrical circuits is degraded and some control signals are set at unexpected levels. Further analysis indicated that combination of a TVS diode failure with other systems failures could significantly reduce flight safety."

\* \* \* \* \*

The unsafe condition is a leakage failure mode of TVS diodes used on PDCU cards or GCU cards in the PPDB, which in combination with other system failures could lead to loss of 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.

## Actions

(g) Within 30 days after the effective date of this AD, revise the Abnormal Procedures and Limitations sections of the Dassault F7X Airplane Flight Manual (AFM) to include the following statement. This may be done by inserting copies of this AD into the AFM Limitations section and Abnormal Procedures section.

"Upon display of ELEC:BUS MISCONFIG TIED in Crew Alerting System (Abnormal procedure 3-190-20), land at nearest suitable airport

Upon display of ELEC:LH ESS PWR LO or ELEC:LH ESS NO PWR (Abnormal procedure 3-190-40), land at nearest suitable airport

Upon display of ELEC:RH ESS PWR LO and ELEC:RH ESS NO PWR (Abnormal procedure 3-190-45), land at nearest suitable airport

Upon display of HYD:BACKUP PUMP HI TEMP (Abnormal procedure 3-250-15), set off the pump and if the backup pump is still rotating (green) in hydraulic synoptic, descend to a safe altitude or below 15,000 ft

Caution: These temporary amendments take precedence over the same procedures displayed through the Electronic Check List (ECL) in the aeroplane."

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

## FAA AD Differences

Note 2: This AD differs from the MCAI and/or service information as follows:

(1) While the European Aviation Safety Agency (EASA) AD 2010-0073, dated April 15, 2010, has a compliance time of "after the effective date of this AD," this AD requires that the actions be done within 30 days after the effective date of this AD.

(2) This AD does not require the inspection of and on-condition replacement of the PDCU and GCU cards in paragraph (3) of EASA AD 2010-0073, dated April 15, 2010, and this AD does not provide credit for accomplishment of certain service bulletins in paragraph (4) of EASA AD 2010-0073, dated April 15, 2010.

## Other FAA AD Provisions

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601

Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1137; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

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

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

### **Related Information**

(i) Refer to MCAI European Aviation Safety Agency Airworthiness Directive 2010-0073, dated April 15, 2010, for related information.

### **Material Incorporated by Reference**

(j) None.

Issued in Renton, Washington, on August 11, 2010.  
Ali Bahrami,  
Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



**2010-18-04 Empresa Brasileira de Aeronautica S.A. (EMBRAER):** Amendment 39-16417.  
Docket No. FAA-2009-0497; Directorate Identifier 2009-NM-019-AD.

**Effective Date**

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

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to EMBRAER Model ERJ 170-100 LR, -100 STD, -100 SE, -100 SU, -200 LR, -200 STD, and -200 SU airplanes, serial numbers 17000002, 17000004 through 17000013 inclusive, and 17000015 through 17000208 inclusive; and Model ERJ 190-100 LR, -100 IGW, -100 STD, -200 STD, -200 LR, and -200 IGW airplanes, serial numbers 19000002, 19000004, and 19000006 through 19000152 inclusive; certificated in any category.

**Subject**

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

**Reason**

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

It has been found the possibility of cracks developing in the ram air turbine (RAT) machined support, located in the forward compartment [zone 124] of [the] aircraft, due to downlock pin not [being] pull[ed] during its retraction. In case of RAT failure or malfunction, it will not provide electrical power to essential systems of [the] aircraft in [an] electrical emergency situation.

\* \* \* \* \*

Lack of electrical power could result in reduced controllability of the airplane. Corrective actions include a detailed visual inspection for cracking of the RAT machined support, replacing the support with a new part if any crack is found, and reinforcing or replacing the support if no crack is found.

**Actions and Compliance**

(f) Unless already done, within 600 flight hours after the effective date of this AD: Perform a detailed visual inspection for cracks in the RAT machined support, in accordance with the

Accomplishment Instructions of EMBRAER Service Bulletin 170-53-0057, dated February 21, 2008; or EMBRAER Service Bulletin 190-53-0027, dated February 18, 2008; as applicable.

(1) If no crack is found, do the actions in either paragraph (f)(1)(i) or (f)(1)(ii) of this AD.

(i) At the earlier of the times specified in paragraphs (f)(1)(i)(A) and (f)(1)(i)(B) of this AD, install reinforcements in the RAT machined support or replace the RAT machined support with a new support having part number 170-18676-405, in accordance with the Accomplishment Instructions of EMBRAER Service Bulletin 170-53-0057, dated February 21, 2008; or EMBRAER Service Bulletin 190-53-0027, dated February 18, 2008; as applicable.

(A) Within 5,000 flight hours after accomplishing the inspection required by paragraph (f) of this AD.

(B) Before further flight after the next two RAT deployments—which can be a flight deployment or a ground deployment as part of a maintenance task—after accomplishing the inspection required by paragraph (f) of this AD.

(ii) Do the actions specified in paragraph (f)(1)(ii)(A) and (f)(1)(ii)(B) of this AD.

(A) Do the inspection specified in paragraph (f) of this AD before further flight after each RAT deployment—which can be a flight deployment or a ground deployment as part of a maintenance task—until the installation specified in paragraph (f)(1)(ii)(B) of this AD is accomplished or the replacement specified in paragraph (f)(2) of this AD is accomplished.

(B) Within 5,000 flight hours after accomplishing the inspection required by paragraph (f) of this AD, install reinforcements in the RAT machined support or replace the RAT machined support with a new support having part number 170-18676-405, in accordance with the Accomplishment Instructions of EMBRAER Service Bulletin 170-53-0057, dated February 21, 2008; or EMBRAER Service Bulletin 190-53-0027, dated February 18, 2008; as applicable.

(2) If any cracking is found, before further flight replace the RAT machined support with a new support having part number 170-18676-405, in accordance with the Accomplishment Instructions of EMBRAER Service Bulletin 170-53-0057, dated February 21, 2008; or EMBRAER Service Bulletin 190-53-0027, dated February 18, 2008; as applicable.

Note 1: Guidance on retracting the RAT without damaging the RAT machined support may be found in Task Number 24-23-00-840-801-A/200–Ram-Air-Turbine (RAT)–Retraction, of the EMBRAER 170/190 Airplane Maintenance Manual.

## **FAA AD Differences**

Note 2: This AD differs from the MCAI and/or service information as follows: Although the MCAI or service information allows further flight after cracks are found during compliance with the required action, paragraph (f)(2) of this AD requires that you replace any cracked lug of the RAT machined support with a new support before further flight.

## **Other FAA AD Provisions**

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

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

(PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office.

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

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

### **Related Information**

(h) Refer to MCAI Agência Nacional de Aviação Civil (ANAC) Airworthiness Directives 2008-10-05 and 2008-10-06, both dated November 10, 2008; EMBRAER Service Bulletin 170-53-0057, dated February 21, 2008; and EMBRAER Service Bulletin 190-53-0027, dated February 18, 2008; for related information.

### **Material Incorporated by Reference**

(i) You must use EMBRAER Service Bulletin 170-53-0057, dated February 21, 2008; or EMBRAER Service Bulletin 190-53-0027, dated February 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 Empresa Brasileira de Aeronautica S.A. (EMBRAER), Technical Publications Section (PC 060), Av. Brigadeiro Faria Lima, 2170–Putim–12227-901 São Jose dos Campos–SP–BRASIL; telephone: +55 12 3927-5852 or +55 12 3309-0732; fax: +55 12 3927-7546; e-mail: distrib@embraer.com.br; Internet: <http://www.flyembraer.com>.

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

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

Issued in Renton, Washington, on August 13, 2010.

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



**2010-18-07 Airbus:** Amendment 39-16420. Docket No. FAA-2010-0804; Directorate Identifier 2010-NM-163-AD.

**Effective Date**

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

**Affected ADs**

(b) None.

**Applicability**

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

**Subject**

(d) Air Transport Association (ATA) of America Code 55: Stabilizers.

**Reason**

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

A special detailed inspection of A318/A319/A320/A321 elevators pre-modification 35515 was introduced under ALI (Airworthiness Limitations Items) task 552007 in the ALS (Airworthiness Limitations Section) part 2 \* \* \* This ALI task has been introduced with an applicability defined at aeroplane modification level.

\* \* \* \* \*

It has been reported that some elevators may have been moved from the aeroplane on which they were originally fitted to another aeroplane, \* \* \*. Consequently, those elevators might not have been inspected within the applicable required time frame as per ALI task 552007 requirements.

\* \* \* \* \*

The unsafe condition is 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.

## Actions

(g) Within 30 days after the effective date of this AD, inspect the left-hand (LH) and right-hand (RH) elevators to determine if the first twelve digits of the part number on the elevator are identified in Table 1 or Table 2 of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-55A1040, dated January 11, 2010; and do the actions required by paragraphs (g)(1) and (g)(2) of this AD, as applicable. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number of the elevators can be conclusively identified from that review.

(1) If any part number is identified in Table 1 of this AD: Within 30 days after the effective date of this AD, do the applicable determination specified in paragraph (g)(1)(i) or (g)(1)(ii) of this AD and compare it to the threshold for the next due inspection, as specified in Airbus ALI Task 552007-01-1 or 552007-01-3, which is defined in Airbus A318/A319/A320/A321 ALI AI/SE-M4/95A.0252/96, Issue 09, dated November 2006; or Issue 10, dated October 2009.

**Table 1 – Elevator Part Number**

<b>Part Name</b>	<b>First Twelve Digits of Part Number Only</b>
LH Elevator	D55280001000
RH Elevator	D55280001001

(i) For elevators on which Airbus Service Bulletin A320-55-1024 has been done: If adequate records exist, determine the elapsed (calendar) time since the date of the first flight of the first airplane on which the elevator is installed after the actions in Airbus Service Bulletin A320-55-1024 were done on the elevator.

(ii) For elevators on which Airbus Service Bulletin A320-55-1024 has not been done: If adequate records exist, determine the elapsed (calendar) time since the date of the first flight of the first airplane on which the elevator is installed.

(2) If any part number is identified in Table 2 of this AD: Within 30 days after the effective date of this AD, if adequate records exist, determine the elapsed (calendar) time since the date of the first flight of the first airplane on which the elevator is installed and compare it to the threshold for the next due inspection, as specified in Airbus ALI Task 552007-01-2 or 552007-01-4, which is defined in Airbus A318/A319/A320/A321 ALI AI/SE-M4/95A.0252/96, Issue 09, dated November 2006; or Issue 10, dated October 2009.

**Table 2 – Elevator Part Number**

<b>Part Name</b>	<b>First Twelve Digits of Part Number Only</b>
LH Elevator	D55280001002, D55280001004, D55280001008, D55280001010, or D55280001012
RH Elevator	D55280001003, D55280001005, D55280001009, D55280001011 or D55280001013

(h) If the elapsed time, determined as required by paragraph (g)(1) of this AD, has exceeded the ALI threshold for the next due inspection, as specified in Airbus ALI Task 552007-01-1 or 552007-01-3; or if unable to determine the elapsed time: Within 30 days after the effective date of this AD, perform a special detailed inspection for damage, including cracking, of the top and bottom skin panels of the affected elevators, in accordance with Airbus ALI Task 552007-01-1 or 552007-01-3, which is defined in Airbus A318/A319/A320/A321 ALI AI/SE-M4/95A.0252/96, Issue 09, dated November 2006; or Issue 10, dated October 2009. If any damage or cracking is found, before further flight, repair using a method approved by either the Manager, International Branch, ANM 116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA) (or its delegated agent).

(i) If the elapsed time, determined as required by paragraph (g)(1) of this AD, has not exceeded the ALI threshold for the next due inspection, as specified in Airbus ALI Task 552007-01-1 or 552007-01-3: Before reaching that threshold, or within 30 days after the effective date of this AD, whichever occurs later; perform a special detailed inspection for damage, including cracking, of the top and bottom skin panels of the affected elevators in accordance with Airbus ALI Task 552007-01-1 or 552007-01-3, which is defined in Airbus A318/A319/A320/A321 ALI AI/SE-M4/95A.0252/96, Issue 09, dated November 2006; or Issue 10, dated October 2009. If any damage or cracking is found before further flight repair using a method approved by either the Manager, International Branch, or EASA (or its delegated agent).

(j) If the elapsed time, determined as required by paragraph (g)(2) of this AD, has exceeded the ALI threshold for the next due inspection, as specified in Airbus ALI Task 552007-01-2 or 552007-01-4; or if unable to determine the elapsed time: Within 30 days after the effective date of this AD, perform a special detailed inspection for damage, including cracking, of the top and bottom skin panels of the affected elevators, in accordance with Airbus ALI Task 552007-01-2 or 552007-01-4, which is defined in Airbus A318/A319/A320/A321 ALI AI/SE-M4/95A.0252/96, Issue 09, dated November 2006; or Issue 10, dated October 2009. If any damage or cracking is found before further flight, repair using a method approved by either the Manager, International Branch, or the EASA (or its delegated agent).

(k) If the elapsed time, determined as required by paragraph (g)(2) of this AD has not exceeded the ALI threshold for the next due inspection, as specified in Airbus ALI Task 552007-01-2 or 552007-01-4: Before reaching that threshold, or within 30 days after the effective date of this AD, whichever occurs later; perform a special detailed inspection for damage, including cracking, of the top and bottom skin panels of the affected elevators, in accordance with Airbus ALI Task 552007-01-2 or 552007-01-4, which is defined in Airbus ALI AI/SE-M4/95A.0252/96, Issue 09, dated November 2006; or Issue 10, dated October 2009. If any damage or cracking is found before further flight, repair using a method approved by either the Manager, International Branch, or EASA (or its delegated agent).

(l) Accomplishment of the inspection and corrective actions required by paragraph (h), (i), (j), and (k) of this AD does not constitute terminating action for the repetitive inspections of Airbus ALI Task 552007, as defined in Airbus A318/A319/A320/A321 ALI AI/SE-M4/95A.0252/96, Issue 09 dated November 2006; or Issue 10, dated October 2009.

(m) As of the effective date of this AD, no person may install, on any airplane, any elevator having a part number identified in Table 1 or 2 of this AD, unless the actions required by paragraphs (g)(1) and (g)(2), of this AD, as applicable, have been done and the inspections and corrective actions required by paragraphs (h), (i), (j), and (k) of this AD have been done.

(n) As of the effective date of this AD, track all interchangeable damage tolerant part movements between airplanes, in accordance with the specific statement in the Section Rules for Compliance Demonstration, either in paragraph F., "Transferable Parts," of the Airbus A318/A319/A320/A321 ALI AI/SE-M4/95A.0252/96, Issue 10, dated October 2009; or in sub-paragraph 10., "Interchangeable parts policy," of Chapter 1.11, "General Rules," of Airbus A318/A319/A320/A321 ALI AI/SE-M4/95A.0252/96, Issue 09, dated November 2006; or Issue 10, dated October 2009.

### **FAA AD Differences**

Note 1: This AD differs from the MCAI and/or service information as follows: Although the MCAI or service information specifies to perform corrective actions using the instructions defined in Airbus ALI AI/SE-M4/95A.0252/96, Issue 09, dated November 2006; or Issue 10, dated October 2009; if any affected elevators are found, such corrective actions are not identified in the ALI tasks. Therefore, this AD requires that you perform all corrective actions before further flight using a method approved by either the Manager, International Branch, ANM 116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA) (or its delegated agent).

### **Other FAA AD Provisions**

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Tim Dulin, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-2141; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

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

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

### **Related Information**

(p) Refer to MCAI EASA Airworthiness Directive 2010-0091, dated May 19, 2010; Airbus Service Bulletin A320-55A1040, dated January 11, 2010; and Airbus A318/A319/A320/A321 ALI AI/SE-M4/95A.0252/96, Issue 09, dated November 2006; and Issue 10, dated October 2009; for related information.

### **Material Incorporated by Reference**

(q) You must use the applicable service information specified in Table 3 of this AD to do the actions required by this AD, unless the AD specifies otherwise.

**Table 3 – Material Incorporated by Reference**

<b>Document</b>	<b>Issue</b>	<b>Date</b>
Airbus A318/A319/A320/A321 Airworthiness Limitations Items AI/SE-M4/95A.0252/96	09	November 2006
Airbus A318/A319/A320/A321 Airworthiness Limitations Items AI/SE-M4/95A.0252/96	10	October 2009
Airbus Service Bulletin A320-55A1040	Original	January 11, 2010

Airbus A318/A319/A320/A321 ALI AI/SE-M4/95A.0252/96, Issue 09, contains the following effective pages:

<b>Page Title/Description</b>	<b>Page Number(s)</b>	<b>Issue Number</b>	<b>Date Shown on Page(s)</b>
<b>List of Effective Pages:</b>			
ALI Title Page	None shown	09	November 2006
Record of Revisions	1-ROR through 3-ROR	9	November 2006
Summary of Changes	1-SOC through 2-SOC	9	November 2006
List of Effective Pages	1-LEP	9	November 2006
Table of Contents	1-TOC	9	November 2006
Section 1 – Introduction	1 - 7	9	November 2006
Section 2 – Airworthiness Limitation Items (ALI)	1 - 61	09	November 2006

Airbus A318/A319/A320/A321 ALI AI/SE-M4/95A.0252/96, Issue 10 contains the following effective pages:

<b>Page Title/Description</b>	<b>Page Number(s)</b>	<b>Issue Number</b>	<b>Date Shown on Page(s)</b>
<b>List of Effective Pages:</b>			
ALI Title Page	None shown	10	October 2009
Record of Revisions	1-ROR through 4-ROR	None shown*	October 2009
Table of Contents	1-TOC	None shown*	October 2009
Section 1 – Introduction	1-INTRO through 8-INTRO	None shown*	October 2009

Section 2 – Damage Tolerant Airworthiness Limitations List	1 - 85	None shown*	October 2009
Appendix A – Summary of Changes	1-APXA through 9-APXA	None shown*	October 2009
Appendix B – Abbreviations	1-APXB through 2-APXB	None shown*	October 2009
Appendix C – Terms and Definitions	1-APXC	None shown*	October 2009
Appendix D – Reporting Form	1-APXD	None shown*	October 2009
Appendix E – Modifications List	1-APXE through 2-APXE	None shown*	October 2009

(\*Only the title page of this document contains the issue level of the document.)

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

(2) For service information identified in this AD, contact Airbus, Airworthiness Office–EAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; e-mail: [account.airworth-eas@airbus.com](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 August 13, 2010.

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



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**2010-18-09 Pratt & Whitney Canada:** Amendment 39-16422; Docket No. FAA-2010-0860; Directorate Identifier 2010-NE-28-AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective September 10, 2010.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Pratt & Whitney Canada (P&WC) PW530A, PW545A, and PW545B turbofan engines that incorporate either P&WC Service Bulletin (SB) PW500-72-30343 or PW500-72-30404. These engines are installed on, but not limited to, Cessna Aircraft Company model 550 (Citation Bravo) and model 560 (Citation Excel and XLS) airplanes.

**Reason**

(d) There have been reports of engine surge, lack of response to Power Lever input and crew commanded engine shutdown on PW530A/PW545A/PW545B engines powered aeroplanes. Investigation revealed engine intercompressor bleed valve/servo valve malfunction as the cause of the above problems, and that this problem is limited to engines fitted with low time (new or overhauled) bleed valve servo valves with either SB 30343 or 30404 incorporated.

We are issuing this AD to prevent inflight loss of power of one or both of the engines and possible loss of control of the airplane.

**Actions and Compliance**

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

(1) For engines that have an intercompressor bleed valve (BOV) servo valve with 250 or more hours time-in-service (TIS) since new or overhaul on the effective date of this AD, no further action is required.

## Remove Intercompressor Bleed Valve/Servo Valve

(2) For engines that have a BOV servo valve with fewer than 50 hours TIS since new or overhaul on the effective date of this AD, remove the BOV servo valve from service as specified in Table 1 of this AD.

**Table 1 – BOV Servo Valve Removal by Engine Model and Service Bulletin**

<b>Engine Model</b>	<b>Remove from service...</b>
PW530A and PW545A.	Within 15 hours TIS after the effective date of this AD.
PW545B engines before incorporation of SB PW500-72-30311.	Within 15 hours TIS after the effective date of this AD.
PW545B engines after incorporation of SB PW500-72-30311.	Within 35 hours TIS after the effective date of this AD.

## Engine Testing

(3) For engines that have a BOV servo valve with 50 hours or more TIS and fewer than 250 hours TIS since new or overhaul on the effective date of this AD, test the engine as specified in P&WC Alert Service Bulletin (ASB) PW500-72-A30421, dated June 29, 2010. Use the compliance times specified in Table 2 of this AD.

**Table 2 – Engine Testing by Engine Model and Service Bulletin**

<b>Engine Model</b>	<b>Perform Test...</b>
PW530A and PW545A.	Within 15 hours TIS after the effective date of this AD.
PW545B engines before incorporation of SB PW500-72-30311.	Within 15 hours TIS after the effective date of this AD.
PW545B engines after incorporation of SB PW500-72-30311.	Within 35 hours TIS after the effective date of this AD.

(4) Thereafter, test the engine as specified in P&WC ASB PW500-72-A30421, dated June 29, 2010. Use the compliance times specified in Table 3 of this AD.

**Table 3 – Repetitive Engine Testing by BOV TIS**

<b>Time on BOV Servo Valve</b>	<b>Repeat test...</b>
Fewer than 100 hours TIS since new.	Within 25 hours TIS since last inspection.
100 or more hours TIS since new, but fewer than 250 hours TIS since new.	Within 50 hours TIS since last inspection.
250 or more hours TIS since new.	No repetitive tests required.

### **Optional Terminating Action**

(f) Replacing the BOV servo valve with a BOV servo valve that is not subject of this AD is terminating action to the testing requirements of paragraphs (e)(3) and (e)(4) of this AD.

### **FAA AD Differences**

(g) This AD differs from the Mandatory Continuing Airworthiness Information (MCAI) in that while the MCAI requires initial mandatory action on only one engine per airplane with follow-on action to the second engine at a later compliance time, this AD requires initial action on both engines of the airplane at the same compliance time.

### **Other FAA AD Provisions**

(h) 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**

(i) Refer to MCAI Transport Canada Airworthiness Directive CF-2010-19, dated July 7, 2010.

(j) Contact James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: james.lawrence@faa.gov; telephone (781) 238-7176; fax (781) 238-7199, for more information about this AD.

### **Material Incorporated by Reference**

(k) You must use Pratt & Whitney Canada Alert Service Bulletin PW500-72-A30421, dated June 29, 2010, to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For service information identified in this AD, contact Pratt & Whitney Canada Corp., 1000 Marie-Victorin, Longueuil, Quebec, Canada, J4G 1A1; telephone 800-268-8000; fax 450-647-2888; Web site: <http://www.pwc.ca>.

(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 August 19, 2010.

Peter A. White,  
Assistant Manager, Engine and Propeller Directorate,  
Aircraft Certification Service.