



**FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES
LARGE AIRCRAFT**

BIWEEKLY 2011-24

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LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
Biweekly 2011-01			
2010-25-06		Boeing	737-200, -300, -400, and -500 series
2010-26-05		Dassault Aviation	Falcon 10, Fan Jet Falcon, Fan Jet Falcon Series C, D, E, F, and G, Mystere-Falcon 20-C5, 20-D5, 20-E5, 20-F5, Mystere-Falcon 200, Mystere-Falcon 50, Mystere-Falcon 900, Falcon 900EX, Falcon 2000 and Falcon 2000EX
2010-26-06		Boeing	737-600, -700, -700C, -800, and -900 series
2010-26-07		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 series
2010-26-08		Boeing	767-200, -300, -300F, and -400ER series
2010-26-10	S 2006-05-09	Boeing	747-200C, -200F, -400, -400D, and -400F series
2010-26-12		Airbus	A321-211, -212, -231, and -232
2010-26-13		Bombardier	DHC-8-301, -311, and -315
Biweekly 2011-02			
2010-02-05		Airbus	See AD
2010-24-05	COR	Pratt & Whitney Canada	Engine: PW305A and PW305B
2010-24-06	S 2006-12-18	Short Brothers PLC	SD3-60 SHERPA, SD3-SHERPA, SD3-30, and SD3-60
2011-01-01	S 2008-13-15	Embraer	EMB-135BJ
2011-01-02		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, 343, A340-211, -212, -213, -311, -312, and -313
2011-01-05		Boeing	727, 727C, 727-100, 727-100C, 727-200, and 727-200F
2011-01-06	S 2007-02-22	Airbus	A310-203, -204, -221, -222, -304, -322, -324, and -325
2011-01-07		328 Support Services GmbH	328-100 and -300
2011-01-09		B/E Aerospace	Appliance: Protective breathing equipment (PBE) units
2011-01-10		Bombardier	BD-700-1A10 and BD-700-1A11
2011-01-11		Boeing	MD-90-30
2011-01-12	S 2008-21-03	Boeing	737-300, -400, and -500 series
2011-01-13		Airbus	A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, and C4-605R Variant F
2011-01-15		Boeing	757-200, -200CB, and -300 series
2011-01-16		Boeing	DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88
2011-02-01		Boeing	MD-11 and MD-11F
2011-02-03		Boeing	757-200, -200PF, -200CB, and -300 series
Biweekly 2011-03			
2011-02-05		Boeing	727, 727C, 727-100, 727-100C, 727-200, and 727-200F series
2011-02-06		Boeing	767-300 series
2011-02-09		Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, and -313
2011-03-01	S 2005-25-05	Pratt & Whitney	JT8D-7, -7A, -7B, -9, -9A, -11, -15, -15A, -17, -17A, -17R, and -17AR series

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Biweekly 2011-04			
2011-02-07	S 2010-12-10	General Electric	Engine: CF6-45A, CF6-45A2, CF6-50A, CF6-50C, CF6-50CA, CF6-50C1, CF6-50C2, CF6-50C2B, CF6-50C2D, CF6-50E, CF6-50E1, CF6-50E2, CF6-50C2-F and CF6-50C2-R
2011-03-07		Fokker Services	F.28 Mark 1000, 2000, 3000, 4000, and F.28 Mark 0100
2011-03-08		Bombardier	CL-215-1A10 (CL-215), CL-215-6B11 (CL-215T Variant), and CL-215-6B11 (CL-415 Variant)
2011-03-09		Boeing	MD-90-30
2011-03-10	S 2005-20-32	Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, and -313
2011-03-11		Airbus	A300 B4-601, B4-603, B4-620, B4-622, A300 B4-605R, B4-622R, A300 F4-605R, and A300 C4-605R Variant F
2011-03-12		Hawker Beechcraft	400A and 400T
2011-03-13		Bombardier	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900)
2011-03-14		Boeing	737-100, -200, -200C, -300, -400, -500 series, and 737-400 series
2011-04-02		Hamilton Sundstrand	Propeller: 247F series
Biweekly 2011-05			
2011-03-15		Boeing	767-200, -300, -300F, and -400ER series
2011-03-16		Cessna	750
2011-04-01		Fokker	F.28 Mark 0070 and 0100
2011-04-03		Bombardier	CL-600-2B19 (Regional Jet Series 100 and 440)
2011-04-04	S 2005-18-02	Pratt & Whitney	Engine: JT8D-209, -217, -217A, -217C, and -219 turbofan
2011-04-05		Airbus	A340-211, -212, -213; A340-311, -312, -313; A340-541; and A340-642
2011-04-06		Airbus	A340-211, -212, -213; A340-311, -312, -313; A340-541; A340-642
2011-04-07		Fokker	F.28 Mark 0070 and 0100
2011-04-08		Learjet	45
2011-04-10	S 2009-23-10	Boeing	737-300, -400, and -500 series
2011-05-03	S 2005-06-04	Bombardier	CL-600-2B19 (Regional Jet Series 100 & 440)
2011-05-04	S 2008-23-19	Boeing	757-200, -200CB, -200PF, and -300 series
2011-05-05		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, -313, -541, and -642
Biweekly 2011-06			
98-09-27R1		Rolls-Royce plc	Engine: RB211-Trent 768, 772, and 772B turbofan
2011-04-09		Transport Category Airplanes	Transport Category Airplanes
2011-05-10		BAE Systems (Operations) Limited	ATP, HS 748 2A and series 2B
2011-05-11	S 2007-19-19	Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747SR, and 747SP series
2011-05-12		Boeing	777-200, -200LR, -300, and -300ER series
2011-05-13		Saab AB, Saab Aerosystems	SAAB 2000
2011-05-14		Bombardier	DHC-8-400, -401, and -402
2011-06-04		Airbus	A330-243F

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Biweekly 2011-07			
2011-06-03		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 series
2011-06-05 2011-06-08	S 2007-18-52	Boeing Bombardier	737-600, -700, -700C, -800, -900, and -900ER series CL-600-2B19 (Regional Jet Series 100 & 440), CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900)
2011-06-09	S 2009-11-09	Airbus	A300 B4-601, A300 B4-603, A300 B4-620, A300 B4-622, A300 B4-605R, A300 B4-622R; A300 F4-605R, A300 F4-622R; and A300 C4-605R Variant F, A310-203, -204, -221, -222, -304, -322, -324, and -325
2011-06-11		Rolls-Royce plc	Engine: RB211-Trent 970-84, 970B-84, 972-84, 972B-84, 977-84, 977B-84, and 980-84 turbofan
2011-06-12 2011-07-01	S 2009-04-17	Boeing General Electric	MD-90-30 Engine: CF6-45A, CF6-45A2, CF6-50A, CF6-50C, CF6-50CA, CF6-50C1, CF6-50C2, CF6-50C2B, CF6-50C2D, CF6-50E, CF6-50E1, CF6-50E2, and CF6-50E2B
2011-07-02	S 2005-02-03	Pratt & Whitney	Engine: JT8D-209, -217, -217A, -217C, and -219 series turbofan
Biweekly 2011-08			
2011-07-04		Boeing	DC-9-14, DC-9-15, DC-9-15F, DC-9-21, DC-9-31, DC-9-32, DC-9-32 (VC-9C), DC-9-32F, DC-9-32F (C-9A), DC-9-32F (C9-B), DC-9-33F, DC-9-34, DC-9-34F, DC-9-41, and DC-9-51
2011-07-05 2011-07-06 2011-07-07 2011-07-08 2011-07-10 2011-07-11 2011-08-51	S 2010-10-18 E	Sigma Aero Seat Bombardier, Inc Fokker Services B.V. Airbus Bombardier, Inc. Dassault Aviation Boeing	Appliance: See AD CL-600-2B19 (Regional Jet Series 100 & 440) F.28 Mark 1000, 2000, 3000, and 4000 A340-211, -212, -213, -311, -312 and -313 BD-100-1A10 (Challenger 300) Mystere-Falcon 50 737-300, -400, and -500 series
Biweekly 2011-09			
2011-07-12 2011-08-02 2011-08-03 2011-08-04		Fokker Services B.V. Fokker Services B.V. Airbus Bombardier, Inc	F.27 Mark 050 F.27 Mark 050 A340-541 and -642 CL-600-2C10 (Regional Jet Series 700, 701 & 702), CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900)
2011-08-05		Airbus	A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, A300 C4-605R Variant F, A310-203, -204, -221, -222, -304, -322, -324, and -325
2011-08-08		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, -100 SU, ERJ 170-200 LR, -200 SU, -200 STD, ERJ 190-100 STD, -100 LR, -100 ECJ, -100 IGW, ERJ 190-200 STD, -200 LR, and -200 IGW
2011-08-10 2011-08-11	S 98-19-12 S 2005-13-19	Rolls-Royce plc BAE Systems (Operations) Limited	Engine: RB211-Trent 768-60 and RB211-Trent 772-60 turbofan BAe 146-100A, -200A, -300A, Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2011-08-12		Airbus	A330-301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, A340-311, -312, and -313
2011-09-01 2011-09-02 2011-09-03 2011-09-05 2011-09-06	S 2002-02-07	Airbus Saab AB, Saab Aerosystems Lockheed Martin Corp Boeing Airbus	A340-541, and -642 340A (SAAB/SF340A) and SAAB 340B 382, 382B, 382E, 382F, and 382G 777-200, -300, and -300ER series A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, and -313

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Biweekly 2011-10			
2011-08-07		Rolls-Royce plc	Engine: RB211-Trent 875-17, RB211-Trent 877-17, RB211-Trent 884-17, RB211-Trent 884B-17, RB211-Trent 892-17, RB211-Trent 892B-17, and RB211-Trent 895-17 turbofan
2011-09-07		Rolls-Royce plc	Engine: RB211-524G2-T-19, -524G3-T-19, -524H-T-36, -524H2-T-19; RB211 Trent 553-61, 553A2-61, 556-61, 556A2-61, 556B-61, 556B2-61, 560-61, 560A2-61; RB211 Trent 768-60, 772-60, 772B-60; RB211 Trent 875-17, 877-17, 884-17, 884B-17, 892-17, 892B-17, and 895-17 turbofan
2011-09-10		Airbus	A300 B4-601, B4-603, B4-605R, C4-605R Variant F, and F4-605R airplanes, and A310-204 and -304
2011-09-11		Boeing	777-200 and -300 series
2011-09-12		Bombardier, Inc.	DHC-8-101, -102, -103, -106, -201, -202, -301, -311, -315, DHC-8-401, and -402
2011-09-13		Airbus	A340-211, -212, -213, -311, -312, and -313
2011-09-14		Boeing	747-200B, -300, -400, -400D, and -400F series
2011-09-15		Boeing	777-200, -200LR, -300, and -300ER series
2011-09-17	S 2010-01-07	Airbus	A340-211, -212, -213, -311, -312, -313, -541, and -642
2011-09-18		Dassault Aviation	FALCON 7X
2011-10-01		Dassault Aviation	FALCON 7X
2011-10-04		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 turbofan
Biweekly 2011-11			
2011-08-51		Boeing	737-300, -400, and -500 series
2011-09-04		Lockheed Martin Corporation	382, 382B, 382E, 382F, and 382G
2011-10-02		Boeing	747-400, 747-400D, and 747-400F series
2011-10-03		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, -100 SU, ERJ 170-200 LR, -200 SU, -200 STD, ERJ 190-100 STD, ERJ 190-100 LR, ERJ 190-100 IGW, ERJ 190-200 STD, ERJ 190-200 LR, and ERJ 190-200 IGW
2011-10-05		Airbus	A310-203, -204, -222, -304, -322, and -324
2011-10-06		Airbus	A310-203, -204, -221, -222, -304, -322, -324, and -325
2011-10-07		Airbus	A310-203, -204, -221, -222, -304, -322, -324, and -325
2011-10-08	S 98-26-01 S 91-13-01	Airbus	A310-203, -204, -221, -222, -304, -322, -324, and -325
2011-10-10		Airbus	A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, and C4-605R Variant F
2011-10-14	S2010-24-08	Dassault Aviation	MYSTERE-FALCON 50
2011-10-15		Airbus	A318-112, A319-111, A319-112, A319-115, A319-132, A319-133, A320-214, A320-232, A320-233, A321-211, A321-213, and A321-231
2011-10-17	S 2007-04-11 S 2007-20-03 S 2007-25-02	Airbus	A300 B2-1A, B2-1C, B4-2C, B2K-3C, B4-103, B2-203, B4-203, A310-203, -204, -221, -222, -304, -322, -324, 325, A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, A300 C4-605R Variant F
2011-11-02		Bombardier, Inc.	DHC-8-400, -401, and -402

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Biweekly 2011-12			
2010-24-13	COR	Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747SR, and 747SP series
2011-07-06	COR	Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440)
2011-11-05	S 2007-15-05	Boeing	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
2011-11-06	S 2002-03-10	BAE Systems (Operations) Limited	BAe 146-100A, -200A, -300A, Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2011-11-08		Rolls-Royce plc	Engine: RB211-535E4-37, -535E4-B-37, -535E4-B-75, and -535E4-C-37 turbofan
2011-12-01		Koito Industries, Ltd.	Appliance: Seats and seating systems
2011-12-51	E	Dassault Aviation	FALCON 7X
Biweekly 2011-13			
2009-18-19 R1		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -343 series, A340-211, -212, -213, -311, -312, and -313 series
2011-12-05		Boeing	727, 727C, 727-100, 727-100C, 727-200, and 727-200F series
2011-12-06		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)
2011-12-09		Boeing	737-100, -200, -200C, -300, -400, and -500 series
2011-12-11	S 2001-14-19	Boeing	767-200, -300, -300F series, 767-400ER series
2011-12-12		Boeing	MD-90-30
2011-12-13		Boeing	737-600, -700, -700C, -800, -900, and -900ER series
2011-12-14		Fokker Services B.V.	F.28 Mark 0070 and 0100
Biweekly 2011-14			
2011-08-09		Embraer	EMB-120, -120ER, -120FC, -120QC, and -120RT
2011-12-51		Dassault Aviation	FALCON 7X
2011-13-04		Rolls-Royce plc	Engine: RB211-Trent 553-61, 553A2-61, 556-61, 556A2-61, 556B-61, 556B2-61, 560-61, and 560A2-61 turbofan
2011-13-06		Bombardier, Inc.	DHC-8-400, -401, and -402
2011-13-07	S 2010-02-02	Dassault Aviation	FALCON 7X
2011-13-08		Bombardier, Inc.	DHC-8-400, -401, and -402
2011-13-09	S 2007-05-08	Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343
2011-13-10	S 2009-11-13	Learjet Inc	45
2011-13-11	S 2007-06-18	Airbus	A318-111, -112, -121, -122, A319-111, -112, -113, -114, -115, -131, -132, -133, A320-111, -211, -212, -214, -231, -232, -233; A321-111, -112, -131, -211, -212, -213, -231, and -232

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AD No.	Information	Manufacturer	Applicability
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Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency

Biweekly 2011-15

2011-09-09		Bombardier, Inc.	CL-600-2A12 (CL-601), CL-600-2B16 (CL-601-3A and CL-601-3R Variants), and CL-600-2B16 (CL-604 Variants)
2011-12-13	COR	Boeing	737-600, -700, -700C, -800, -900, and -900ER series
2011-13-01		Rolls-Royce plc	Engine: RB211-524D4-19, -524D4-B-19, -524D4-39, -524D4-B-39, -524D4X-19, -524D4X-B-19, -524H-36, -524H2-19, -524H-T-36, -524H2-T-19, -524G2-19, -524G3-19, -524G2-T-19, and -524G3-T-19
2011-14-01		Airbus	A300 B4-601, B4-603, B4-620, B4-622; A300 B4-605R, B4-622R; A300 F4-605R, F4-622R; A300 C4-605R Variant F; A310-203, -204, -221, -222, -304, -322, -324, and -325
2011-14-03		Boeing	DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87) and MD-88
2011-14-04		Dassault Aviation	FALCON 7X
2011-14-08		B/E Aerospace	Appliance: Continuous Flow Passenger Oxygen Mask Assembly
2011-14-10		Airbus	A330-342
2011-14-11		Boeing	747-400 and -400D series
2011-14-12		Saab AB, Saab Aerosystems	SAAB 2000
2011-15-01		Boeing	DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88
2011-15-02	S 2008-20-01	Lockheed Martin	382, 382B, 382E, 382F, and 382G
2011-15-03	S 97-26-07	Boeing	747-100, -100B, -100B SUD, -200B, -200C, -200F, -300, -400, -400D, -400F, 747SR, and 747SP series
2011-15-06		General Electric	Engine: GE90-76B; GE90-77B; GE90-85B; GE90-90B; and GE90-94B turbofan

Biweekly 2011-16

2011-14-06	S 2007-20-05	Airbus	A318-111, -112, -121, -122, A319-111, -112, -113, -114, -115, -131, -132, -133, A320-111, -211, -212, -214, -231, -232, -233, A321-111, -112, -131, -211, -212, -213, -231, and -232
2011-15-07		328 Support Services GmbH	328-100 and -300
2011-15-08		Airbus	A300 B4-601, B4-603, B4-620, B4-622, A300 B4-605R, B4-622R, A300 F4-605R, F4-622R, A300 C4-605R Variant F; A310-203, -204, -221, -222, -304, -322, -324, and -325
2011-15-09	S 2011-05-14	Bombardier, Inc.	DHC-8-400, -401, and -402
2011-16-02		Boeing	747 and 767

Biweekly 2011-17

2011-09-09	Cor	Bombardier, Inc.	CL-600-2A12 (CL-601), CL-600-2B16 (CL-601-3A and CL-601-3R Variants), CL-600-2B16 (CL-604 Variants), and CL-600-2B16 (CL-604 Variants)
2011-14-07		Pratt & Whitney	Engine: PW4074 and PW4077 turbofan
2011-16-01	S 2011-12-51	Dassault Aviation	FALCON 7X
2011-16-03		Airbus	See AD
2011-16-06		Boeing	747-400 and -400F series
2011-17-02		Airbus	A320-214, -232, and -233
2011-17-03		Fokker Services B.V.	F.28 Mark 1000, 2000, 3000, and 4000
2011-17-10		Fokker Services B.V.	F.28 Mark 1000, 2000, 3000, and 4000

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Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
Biweekly 2011-18			
2011-17-04		Bombardier	DHC-8-400, -401, and -402
2011-17-07	S 2006-09-07	M7 Aerospace LP Airbus	SA226-T, SA226-T(B), SA226-TC, SA226-AT A330-201, -202, -203, -223, -223F, -243, -243F, A330-301, -302, -303, -321, -322, -323, -341, -342, and -343
2011-17-09		Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, A330-301, -302, -303, -321, -322, -323, -341, -342, and -343
2011-17-11		Boeing	DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88
2011-17-12		Bombardier	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)
2011-17-16		Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-311, -312, -313, A340-541 and -642
2011-18-01		General Electric	Engine: CF6-45A, CF6-45A2, CF6-50A, CF6-50C, CF6-50CA, CF6-50C1, CF6-50C2, CF6-50C2B, CF6-50C2D, CF6-50E, CF6-50E1, and CF6-50E2 series turbofan
2011-18-02		General Electric	Engine: CF34-10E2A1; CF34-10E5; CF34-10E5A1; CF34-10E6; CF34-10E6A1; CF34-10E7; and CF34-10E7-B turbofan
2011-18-03		Boeing	737-600, -700, -700C, -800, -900 series, 737-600, -700, -700C, -800, and -900 series
2011-18-05		Saab Ab, Saab Aerosystems	SAAB 2000
2011-18-08		Bombardier	CL-600-2B19 (Regional Jet Series 100 & 440)
2011-18-51	E	Honeywell International, Inc.	Engine: TPE331
Biweekly 2011-19			
2005-25-10R1	R 2005-25-10	Dowty Propellers	Propeller: R321/4-82-F/8, R324/4-82-F/9, R333/4-82-F/12, and R334/4-82-F/13
2011-18-04		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, -100 SU; ERJ 170-200 LR, -200 SU, -200; ERJ 190-100 STD, -100 LR, -100 ECJ, -100 IGW; ERJ 190-200 STD, -200 LR, and -200 IGW
2011-18-14		Embraer	ERJ 190-100 STD, -100 LR, -100 ECJ, -100 IGW; ERJ 190-200 STD, -200 LR, and -200 IGW
2011-18-18		Bombardier	DHC-8-400, -401, and -402
Biweekly 2011-20			
2011-08-07	COR	Rolls-Royce plc	Engine: RB211-Trent 875-17, RB211-Trent 877-17, RB211-Trent 884-17, RB211-Trent 884B-17, RB211-Trent 892-17, RB211-Trent 892B-17, and RB211-Trent 895-17 turbofan
2011-17-17	S 2007-22-09	Bombardier	DHC-8-400, -401, and -402
2011-18-13	S 2008-10-51	328 Support Services GmbH	328-100 and -300
2011-18-15		Bombardier	DHC-8-400, -401, and -402
2011-18-17		Bombardier	DHC-8-400, -401, and -402
2011-18-20		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -343; A340-211, -212, -213, -311, -312, and -313
2011-18-22		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, and -313
2011-18-23		Boeing	See AD
2011-19-01	S 2004-15-14	Airbus	See AD
2011-19-04	S 2009-17-04	Airbus	A318-111, -112, -121, -122; A319-111, -112, -113, -114, -115, -131, -132, -133; A320-111, -211, -212, -214, -231, -232, -233; A321-111, -112, -131, -211, -212, -213, -231, and -232
2011-20-02		BAE Systems (Operations) Limited	BAe 146-100A, -200A, -300A, Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2011-20-03		Airbus	A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, C4-605R Variant F; A310-203, -204, -221, -222, -304, -322, -324, and -325

LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
Biweekly 2011-21			
2011-18-10	S 2003-03-01	Boeing	737-600, -700, -700C, -800, -900, and -900ER series
2011-19-02		Dowty Propellers	Propellers: R212/4-30-4/22 and R251/4-30-4/49
2011-20-04		Gulfstream Aerospace LP	Galaxy and Gulfstream 200
2011-20-07	S 2010-17-05	Boeing	737-600, -700, -700C, -800, and -900 series
2011-20-09		Airbus	See AD
2011-20-10		Boeing	737-600, -700, -700C, -800, -900, and -900ER series
Biweekly 2011-22			
2011-14-02	S 2006-24-04	Boeing	767-200, -300, -300F, and -400ER series
2011-17-05	S 90-01-10	Airbus	A300 B2-1C, A300 B2-203, A300 B2K-3C, A300-B4-103, A300 B4-203, and A300 B4-2C
2011-21-01		Fokker Services B.V.	F.27 Mark 050, 200, 300, 400, 500, 600, and 700 airplanes; and Fokker Services B.V. Model F.28 Mark 0070, 0100, 1000, 2000, 3000, and 4000
2011-21-02		Airbus	A330-243F
2011-21-03		Boeing	777-200, -200LR, -300, and -300ER series
2011-21-04	S 2006-12-16	Bombardier	DHC-8-102, -103, -106, -201, -202, -301, -311, and -315
2011-21-05		Aviointeriors S.p.A.	Appliance: Passenger seats
2011-21-06	S 2009-10-02	BAE Systems (Operations) Limited	4101
2011-21-07		Bombardier	CL-600-2B19 (Regional Jet Series 100 & 440), CL-600-2C10 (Regional Jet Series 700, 701, & 702); CL-600-2D15 (Regional Jet Series 705); and CL-600-2D24 (Regional Jet Series 900)
2011-21-08		Sicma Aero Seat	Appliance: Passenger Seat Assemblies
2011-21-09	S 2007-25-15	Airbus	A300 B4-103, B4-203, and B4-2C
2011-21-14	S 2008-03-04	Airbus	A300 B4-601, B4-603, B4-620, and B4-622, A300 B4-605R, B4-622R, F4-605R, and F4-622R airplanes and A300 C4-605R Variant F
2011-21-15		Embraer	EMB-135ER, -135KE, -135KL, and -135LR airplanes; and Model EMB-145, -145ER, -145MR, -145LR, -145MP, and -145EP
2011-22-01		Rolls-Royce Deutschland Ltd	Engine: BR700-710A1-10, BR700-710A2-20, BR700-710C4-11 and BR700-710C4-11
Biweekly 2011-23			
2011-21-17		General Electric Company	Engine: CT7-8A, CT7-8A1, CT7-8E, and CT7-8F5 turboshaft
2011-22-02		Airbus	See AD
2011-22-03		Rolls-Royce Corporation	Engine: AE 3007A, AE 3007A1/1, AE 3007A1, AE 3007A1/3, AE 3007A1E, AE 3007A1P, and AE 3007A3 turbofan
2011-22-04		Airbus	A310-203, A310-204, A310-221 A310-222, A310-304, A310-322, A310-324, and A310-325
2011-22-06		Bombardier, Inc.	CL-215-1A10; CL-215-6B11 (CL-215T Variant), and CL-215-6B11 (CL-415 Variant)
2011-22-07		Rolls-Royce	Engine: See AD
2011-23-05	S 2009-02-06 R1	Boeing	737-300, -400, -500 series
2011-23-06		Sicma Aero Seat	Appliance: See AD
2011-23-09		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)
Biweekly 2011-24			
2011-23-04	S 2006-12-24	General Electric Company	Engine: See Ad
2011-23-07		Gulfstream Aerospace LP	G150, Galaxy, and 200
2011-23-08	S 2010-22-02	Bombardier Inc	CL-600-2B19 (Regional Jet Series 100 & 440)
2011-23-10		ATR-GIE Avions de Transport Regional	ATR42-200, -300, -320, -500, ATR72-101, -102, -201, -202, -211, -212, and -212A
2011-23-12		Rolls-Royce plc	Engine: RB211-524G2-19; -524G2-T-19; -524G3-19; 524G3-T-19; 524H2-19; -524H2-T-19; -524H-36; and -524H-T-36



2011-23-04 General Electric Company: Amendment 39-16855; Docket No. FAA-2010-1151; Directorate Identifier 95-ANE-10-AD.

Effective Date

- (a) This airworthiness directive (AD) is effective December 12, 2011.

Affected ADs

- (b) This AD supersedes AD 2006-12-24, Amendment 39-14650 (71 FR 34807, June 16, 2006).

Applicability

(c) This AD applies to General Electric (GE) CF6-45A, CF6-45A2, CF6-50A, CF6-50C, CF6-50CA, CF6-50C1, CF6-50C2, CF6-50C2B, CF6-50C2D, CF6-50E, CF6-50E1, CF6-50E2, CF6-50E2B, CF6-80A, CF6-80A1, CF6-80A2, and CF6-80A3 turbofan engines, including engines marked on the engine data plate as CF6-50C2-F and CF6-50C2-R, with left-hand side links part numbers (P/Ns) 9204M94P01, 9204M94P03, 9346M99P01, and 9346M99P03, and right-hand side links, P/Ns 9204M94P02, 9204M94P04, 9346M99P02, and 9346M99P04, installed on the forward engine mount assembly (also known as Configuration 2).

Unsafe Condition

(d) This AD results from a report that GE had omitted two affected side link part numbers from the applicability of the original AD. We are issuing this AD to include those part numbers and to prevent failure of the side links and possible engine separation from the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed at every exposure of the side link.

Inspecting and Stripping and Reapplying the Sermetel W Coating on the Side Links

(f) Inspect, strip, and reapply the Sermetel W coating on each side link at every exposure of the side link. Use the following GE service bulletins (SBs):

(1) For CF6-45/-50 series engines, use paragraphs 3.A. through 3.E. of the Accomplishment Instructions of CF6-50 S/B 72-1255, Revision 1, dated June 17, 2009.

(2) For CF6-80A series engines, use paragraphs 3.A. through 3.E. of the Accomplishment Instructions of CF6-80A S/B72-0797, Revision 1, dated June 17, 2009.

Definition of Exposure of Side Link

(g) A side link is exposed when one or more bolts that attach the side links to the fan frame-front high-pressure compressor case are removed or when the bolt attaching the side link to the mount platform is removed.

Alternative Methods of Compliance

(h) The Manager, Engine Certification Office, FAA, may approve alternative methods of compliance for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

Related Information

(i) For more information about this AD, contact Tomasz Rakowski, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: (781) 238-7735; fax: (781) 238-7199; email: tomasz.rakowski@faa.gov.

Material Incorporated by Reference

(j) You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference (IBR) under 5 U.S.C. 552(a) and 1 CFR part 51 of the following service information on the date specified:

(1) GE CF6-50 S/B 72-1255, Revision 1, dated June 17, 2009, approved for IBR December 12, 2011.

(2) GE CF6-80A S/B 72-0797, Revision 1, dated June 17, 2009, approved for IBR December 12, 2011.

(3) For service information identified in this AD, contact GE Aviation M/D Rm. 285, One Neumann Way, Cincinnati, OH 45215; phone: (513) 552-3272; email: geae.aoc@ge.com.

(4) You may review copies of the service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call (781) 238-7125.

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

Issued in Burlington, Massachusetts, on October 26, 2011.

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



2011-23-07 Gulfstream Aerospace LP (Type Certificate Previously Held by Israel Aircraft Industries, Ltd.): Amendment 39-16858. Docket No. FAA-2011-0716; Directorate Identifier 2011-NM-013-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective December 15, 2011.

Affected ADs

(b) None.

Applicability

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

(1) Gulfstream Aerospace LP (Type Certificate previously held by Israel Aircraft Industries, Ltd.) Model Gulfstream G150 airplanes, serial numbers 201 through 286 inclusive.

(2) Gulfstream Aerospace LP (Type Certificate previously held by Israel Aircraft Industries, Ltd.) Model Galaxy airplanes; and Gulfstream Aerospace LP Model Gulfstream 200 airplanes; serial numbers 004 through 231 inclusive.

Subject

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

Reason

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

A broken aileron servo actuator centering spring rod was discovered on a model G100 aircraft during a routine scheduled maintenance inspection. * * * This latent failure of a centering spring rod, if not detected and corrected, in conjunction with the disconnection of the normal mechanical control system of the same servo actuator would lead to loss [of] control of the flight control surface [aileron or elevator]. This condition would reduce the control capability of the airplane and imposes a higher workload on the flight crew reducing their ability to cope with adverse operating conditions.

Compliance

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

Inspection

(g) Within 12 months after the effective date of this AD, do the actions specified by paragraph (g)(1) or (g)(2) of this AD, as applicable.

(1) For Model Gulfstream G150 airplanes: Do a one-time detailed inspection of the aileron control servo actuators to detect fractured or broken centering spring rods, in accordance with the Accomplishment Instructions of Gulfstream Service Bulletin 150-27-123, Revision 1, dated January 27, 2011.

(2) For Model Galaxy and Gulfstream 200 airplanes: Do a one-time detailed inspection of the aileron and elevator control servo actuators to detect fractured or broken centering spring rods, in accordance with the Accomplishment Instructions of Gulfstream Service Bulletin 200-27-374, Revision 1, dated January 27, 2011.

Corrective Actions

(h) If any centering spring rod is found fractured or broken during any inspection required by this AD: Before further flight, replace the centering spring rod in accordance with a method approved by the Manager, International Branch, ANM 116, Transport Airplane Directorate, FAA, or the Civil Aviation Authority of Israel (CAAI) (or its delegated agent).

Credit for Actions Accomplished in Accordance With Previous Service Information

(i) Actions done before the effective date of this AD in accordance with Gulfstream Service Bulletin 150-27-123 or 200-27-374, both dated October 27, 2010, as applicable, are considered acceptable for the actions required by paragraph (g) of this AD.

FAA AD Differences

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

The MCAI AD does not specify a corrective action for fractured or broken rods; however, paragraph (h) of this AD requires corrective action.

Other FAA AD Provisions

(j) 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. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Mike Borfitz, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-2677; fax (425) 227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding 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

(k) Refer to MCAI Israeli Airworthiness Directives 27-10-11-03, dated December 6, 2010, and 27-10-12-29, dated January 4, 2011; and Gulfstream Service Bulletins 150-27-123 and 200-27-374, both Revision 1, both dated January 27, 2011; for related information.

Material Incorporated by Reference

(l) You must use Gulfstream Service Bulletin 150-27-123, Revision 1, dated January 27, 2011; or Gulfstream Service Bulletin 200-27-374, Revision 1, dated January 27, 2011; 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 Gulfstream Aerospace Corporation, P.O. Box 2206, Mail Station D-25, Savannah, Georgia 31402-2206; telephone (800) 810-4853; fax (912) 965-3520; email pubs@gulfstream.com; Internet http://www.gulfstream.com/product_support/technical_pubs/pubs/index.htm.

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

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

Issued in Renton, Washington, on October 20, 2011.

Kalene C. Yanamura,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.



2011-23-08 Bombardier, Inc.: Amendment 39-16859. Docket No. FAA-2011-0648; Directorate Identifier 2010-NM-276-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective December 22, 2011.

Affected ADs

(b) This AD supersedes AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010).

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 and subsequent.

Subject

(d) Air Transport Association (ATA) of America Code 29 and 32: Hydraulic Power and Landing Gear, respectively.

Reason

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

Seven cases of on-ground hydraulic accumulator screw cap/end cap failure have been experienced on CL-600-2B19 aeroplanes, resulting in the loss of the associated hydraulic system and high-energy impact damage to adjacent systems and structure. *

* * * * *

A detailed analysis of the calculated line of trajectory of a failed screw cap/end cap for each of the accumulators has been conducted, resulting in the identification of several areas where systems and/or structural components could potentially be damaged. Although all of the failures to date have occurred on the ground, an in-flight failure affecting such components could potentially have an adverse effect on the controllability of the aeroplane.

* * * * *

Compliance

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

Restatement of Requirements of AD 2010-22-02, Amendment 39-16481 (75 FR 64636, OCTOBER 20, 2010), With Revised Service Information:

Airplane Flight Manual (AFM) Revision

(g) Within 30 days after November 4, 2010 (the effective date of AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010)), revise the Limitations section, Normal Procedures section, and Abnormal Procedures section of the Canadair Regional Jet AFM, CSP A-012, by incorporating Canadair Regional Jet Temporary Revision (TR) RJ/186-1, dated August 24, 2010, into the applicable section of Canadair Regional Jet AFM, CSP A-012. Thereafter, except as provided by paragraph (t) of this AD, no alternative actions specified in Canadair Regional Jet TR RJ/186-1, dated August 24, 2010, may be approved.

Note 1: The actions required by paragraph (g) of this AD may be done by inserting a copy of Canadair Regional Jet TR RJ/186-1, dated August 24, 2010, into the applicable section of the Canadair Regional Jet AFM, CSP A-012. When this TR has been included in the general revisions of this AFM, the general revisions may be inserted into this AFM, and this TR removed, provided that the relevant information in the general revision is identical to that in Canadair Regional Jet TR RJ/186-1, dated August 24, 2010.

Deactivation of the Hydraulic System No. 3 Accumulator

(h) Within 250 flight cycles after November 4, 2010, deactivate the hydraulic system No. 3 accumulator, in accordance with Part A of the Accomplishment Instructions of Bombardier Alert Service Bulletin A601R-29-031, Revision A, dated March 26, 2009. Doing the removal of the hydraulic system No. 3 accumulator in paragraph (o) of this AD terminates the requirements of this paragraph. The actions in this paragraph apply to all accumulators in hydraulic system No. 3.

Removal of the Hydraulic System No. 2 Accumulator

(i) Within 500 flight cycles after November 4, 2010, remove the hydraulic system No. 2 accumulator, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 601R-29-032, Revision A, dated January 26, 2010. The actions in this paragraph apply to all accumulators in hydraulic system No. 2.

Initial and Repetitive Ultrasonic Inspections of Hydraulic System No. 1, Inboard Brake and Outboard Brake Accumulators

(j) For hydraulic system No. 1, inboard brake and outboard brake accumulators having P/N 601R75138-1 (08-60163-001 or 08-60163-002): At the applicable compliance times specified in paragraph (l) of this AD, do the inspections required by paragraphs (j)(1) and (j)(2) of this AD. Repeat the inspections for each accumulator having P/N 601R75138-1 (08-60163-001 or 08-60163-002) thereafter at intervals not to exceed 500 flight cycles until the replacement specified in this paragraph is done or the replacement specified in paragraph (p) of this AD is done. If any crack is found, before further flight, replace the accumulator with a new accumulator having P/N 601R75138-1 (08-60163-001 or 08-60163-002) and having the letter "T" after the serial number on the identification plate, in accordance with the Accomplishment Instructions of the applicable service bulletin identified in table 1 or table 2 of this AD.

(1) Do an ultrasonic inspection for cracks on each accumulator, in accordance with Part B of the Accomplishment Instructions of the applicable service bulletin identified in table 1 of this AD.

Table 1–Bombardier Service Information for Accumulator Inspection

Accumulator	Document	Revision	Date
Hydraulic System No. 1	Bombardier Alert Service Bulletin A601R-29-029, including Appendix A, dated October 18, 2007	B	May 11, 2010
Inboard and Outboard Brake	Bombardier Alert Service Bulletin A601R-32-103, including Appendix A, Revision A, dated October 18, 2007	D	May 11, 2010

(2) Do an ultrasonic inspection for cracks on the screw cap, in accordance with the Accomplishment Instructions of the applicable service bulletin identified in table 2 of this AD.

Table 2–Bombardier Service Information for Screw Cap Inspection

Accumulator	Document	Revision	Date
Hydraulic System No. 1	Bombardier Service Bulletin 601R-29-033, including Appendix A, dated May 5, 2009	A	May 11, 2010
Inboard and Outboard Brake	Bombardier Service Bulletin 601R-32-106, including Appendix A	A	May 11, 2010

(k) For hydraulic system No. 1 inboard brake, and outboard brake accumulators having P/N 601R75138-1 (08-60163-001 or 08-60163-002): Do the inspections specified in paragraph (j) of this AD at the applicable time in paragraph (k)(1), (k)(2), and (k)(3) of this AD.

(1) For any accumulator not having the letter "T" after the serial number on the identification plate and with more than 4,500 flight cycles on the accumulator as of November 4, 2010: Inspect within 500 flight cycles after November 4, 2010.

(2) For any accumulator not having the letter "T" after the serial number on the identification plate and with 4,500 flight cycles or less on the accumulator as of November 4, 2010: Inspect prior to the accumulation of 5,000 flight cycles on the accumulator.

(3) If it is not possible to determine the flight cycles accumulated for any accumulator not having the letter "T" after the serial number on the identification plate: Inspect within 500 flight cycles after November 4, 2010.

Note 2: For any accumulator having P/N 601R75138-1 (08-60163-001 or 08-60163-002) and the letter "T" after the serial number on the identification plate, or if the accumulator P/N is not listed in paragraph (j) of this AD, the inspection specified in paragraph (j) of this AD is not required.

Credit for Actions Accomplished in Accordance With Previous Service Information

(l) Deactivating the hydraulic system No. 3 accumulator before November 4, 2010, in accordance with Part A of the Accomplishment Instructions of Bombardier Alert Service Bulletin A601R-29-031, dated December 23, 2008, is acceptable for compliance with the requirements of paragraph (h) of this AD.

(m) Removing the hydraulic system No. 2 accumulator in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 601R-29-032, dated November 12, 2009, before November 4, 2010, is acceptable for compliance with the requirements of paragraph (i) of this AD.

(n) An ultrasonic inspection for cracks done before November 4, 2010, in accordance with Part B of the Accomplishment Instructions of the applicable service bulletin identified in table 3 of this AD, or the Accomplishment Instructions of the applicable service bulletin identified in table 4 of this AD,

is acceptable for compliance with the corresponding ultrasonic inspection required by paragraph (j) of this AD.

Table 3–Bombardier Credit Service Information for Accumulator Inspection

Document	Revision	Date
Bombardier Alert Service Bulletin A601R-29-029	- - -	October 18, 2007
Bombardier Alert Service Bulletin A601R-29-029	A	November 12, 2009
Bombardier Alert Service Bulletin A601R-32-103	- - -	November 21, 2006
Bombardier Alert Service Bulletin A601R-32-103	A	March 7, 2007
Bombardier Alert Service Bulletin A601R-32-103	B	October 18, 2007
Bombardier Alert Service Bulletin A601R-32-103	C	February 26, 2009

Table 4–Bombardier Credit Service Information For Screw Cap Inspection

Document	Date
Bombardier Service Bulletin 601R-29-033	May 5, 2009
Bombardier Service Bulletin 601R-32-106	May 5, 2009

New Requirements of This AD

Removal of the Hydraulic System No. 3 Accumulator

(o) Within 1,000 flight cycles after the effective date of this AD, remove the hydraulic system No. 3 accumulator, in accordance with Part B of the Accomplishment Instructions of Bombardier Alert Service Bulletin A601R-29-031, Revision A, dated March 26, 2009. Doing the action in this paragraph terminates the requirements of paragraph (h) of this AD.

Replacement of the Hydraulic System No. 1, Inboard Brake and Outboard Brake Accumulators

(p) Within 4,000 flight cycles or 24 months after the effective date of this AD, whichever occurs first, replace any hydraulic system No. 1, inboard brake or outboard brake accumulator having P/N 601R75138-1 (08-60163-001 or 08-60163-002), with a new accumulator having P/N 601R75139-1 (11093-4), in accordance with the Accomplishment Instructions of the applicable service bulletin identified in table 5 of this AD. Doing the action in this paragraph terminates the requirement for the inspections in paragraph (j) of this AD for that accumulator. As of the effective date of this AD, use only Bombardier Service Bulletin 601R-29-035, Revision A, dated December 8, 2010; or Bombardier Service Bulletin 601R-32-107, Revision B, dated December 8, 2010; as applicable.

Table 5–Bombardier Service Information for Accumulator Replacement

Accumulator	Document	Revision	Date
Hydraulic System No. 1	Bombardier Service Bulletin 601R-29-035	- - -	May 11, 2010
Hydraulic System No. 1	Bombardier Service Bulletin 601R-29-035	A	December 8, 2010

Inboard and Outboard Brake	Bombardier Service Bulletin 601R-32-107	A	June 17, 2010
Inboard and Outboard Brake	Bombardier Service Bulletin 601R-32-107	B	December 8, 2010

Action for Airplanes on Which Bombardier Service Bulletin 601R-29-035, Dated May 11, 2010, Is Done and Reducer Having P/N MS21916D8-6 Is Installed

(q) For airplanes on which Bombardier Service Bulletin 601R-29-035, dated May 11, 2010, is done, and reducer having P/N MS21916D8-6 is installed: Within 1,200 flight cycles or 8 months after the effective date of this AD, replace the reducer of the hydraulic system No. 1 with a new reducer in accordance with Part B of Bombardier Service Bulletin 601R-29-035, Revision A, dated December 8, 2010.

Credit for Actions Accomplished in Accordance With Previous Service Information

(r) Removing the hydraulic system No. 3 accumulator in accordance with Part B of the Accomplishment Instructions of Bombardier Alert Service Bulletin A601R-29-031, dated December 23, 2008, before November 4, 2010, is acceptable for compliance with the requirements of paragraph (o) of this AD.

(s) Replacing any hydraulic system No. 1, inboard brake, or outboard brake accumulator before November 4, 2010, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 601R-32-107, dated May 11, 2010; or Bombardier Service Bulletin 601R-32-107, Revision A, dated June 17, 2010; is acceptable for compliance with the corresponding requirements of paragraph (p) of this AD.

FAA AD Differences

Note 3: This AD differs from the MCAI and/or service information as follows: (1) The actions specified in Canadian Airworthiness Directive CF-2010-24, dated August 3, 2010, apply only to Tactair accumulators. The actions required by paragraphs (h), (i), and (o) of this AD apply to all accumulators in the positions specified in paragraphs (h), (i), and (o) of this AD.

(2) While Canadian Airworthiness Directive CF-2010-24, dated August 3, 2010, does not require replacement of the reducer of the hydraulic system No. 1 with a new reducer, paragraph (q) of this AD does.

Other FAA AD Provisions

(t) 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, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD. AMOCs approved previously in accordance with AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010), are approved as AMOCs for the corresponding provisions of 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

(u) Refer to MCAI Canadian Airworthiness Directive CF-2010-24, dated August 3, 2010; Canadair Regional Jet Temporary Revision RJ/186-1, dated August 24, 2010, to the Canadair Regional Jet Airplane Flight Manual, CSP A-012; Bombardier Alert Service Bulletin A601R-29-029, Revision B, dated May 11, 2010, including Appendix A, dated October 18, 2007; Bombardier Alert Service Bulletin A601R-29-031, Revision A, dated March 26, 2009; Bombardier Alert Service Bulletin A601R-32-103, Revision D, dated May 11, 2010, including Appendix A, Revision A, dated October 18, 2007; Bombardier Service Bulletin 601R-29-032, Revision A, dated January 26, 2010; Bombardier Service Bulletin 601R-29-033, Revision A, dated May 11, 2010, including Appendix A, dated May 5, 2009; Bombardier Service Bulletin 601R-29-035, Revision A, dated December 8, 2010; Bombardier Service Bulletin 601R-32-106, Revision A, including Appendix A, dated May 11, 2010; and Bombardier Service Bulletin 601R-32-107, Revision B, dated December 8, 2010; for related information.

Material Incorporated by Reference

(v) You must use the following service information, as applicable, to do the actions required by this AD, unless the AD specifies otherwise. 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.

(1) Canadair Regional Jet Temporary Revision RJ/186-1, dated August 24, 2010, to the Canadair Regional Jet Airplane Flight Manual, CSP A-012 (previously approved for incorporation by reference on November 4, 2010 (75 FR 64636, October 20, 2010));

(2) Bombardier Alert Service Bulletin A601R-29-029, Revision B, dated May 11, 2010, including Appendix A, dated October 18, 2007 (previously approved for incorporation by reference on November 4, 2010 (75 FR 64636, October 20, 2010))*;

(3) Bombardier Alert Service Bulletin A601R-29-031, Revision A, dated March 26, 2009 (previously approved for incorporation by reference on November 4, 2010 (75 FR 64636, October 20, 2010));

(4) Bombardier Alert Service Bulletin A601R-32-103, Revision D, dated May 11, 2010, including Appendix A, Revision A, dated October 18, 2007 (previously approved for incorporation by reference on November 4, 2010 (75 FR 64636, October 20, 2010))*;

(5) Bombardier Service Bulletin 601R-29-032, Revision A, dated January 26, 2010 (previously approved for incorporation by reference on November 4, 2010 (75 FR 64636, October 20, 2010));

(6) Bombardier Service Bulletin 601R-29-033, Revision A, dated May 11, 2010, including Appendix A, dated May 5, 2009 (previously approved for incorporation by reference on November 4, 2010 (75 FR 64636, October 20, 2010))*;

(7) Bombardier Service Bulletin 601R-29-035, Revision A, dated December 8, 2010 (approved for incorporation by reference on December 22, 2011);

(8) Bombardier Service Bulletin 601R-32-106, Revision A, including Appendix A, dated May 11, 2010 (previously approved for incorporation by reference on November 4, 2010 (75 FR 64636, October 20, 2010))*; and

(9) Bombardier Service Bulletin 601R-32-107, Revision B, dated December 8, 2010 (approved for incorporation by reference on December 22, 2011).

Note 4: * In Appendix A to these documents, the document number is shown only on page A1 of these appendices.

(10) 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; email thd.crj@aero.bombardier.com; Internet <http://www.bombardier.com>.

(11) 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.

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

Issued in Renton, Washington, on October 20, 2011.

Kalene C. Yanamura,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.



2011-23-10 ATR-GIE Avions de Transport Régional: Amendment 39-16861. Docket No. FAA-2011-0721; Directorate Identifier 2010-NM-217-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective December 15, 2011.

Affected ADs

(b) None.

Applicability

(c) This AD applies to ATR-GIE Avions de Transport Régional Model ATR42-200, -300, -320, and -500 airplanes, all manufacturer serial numbers (MSN) up to MSN 643 inclusive; and Model ATR72-101, -102, -201, -202, -211, -212, and -212A airplanes, all MSNs up to MSN 728 inclusive; certificated in any category.

Subject

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

Reason

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

One ATR operator has experienced in-flight elevator travel limitations with unusual effort being necessary on pitch axis to control the aeroplane, while the "pitch mistrim" message appeared on the ADU [advisory display unit] display. The elevators seemed to be jammed.

During the post-flight inspection, it was discovered that the LH [left-hand] elevator lower stop assembly was broken at the level of the angles, which may have prevented the elevator to respond normally to the flight control input.

This condition, if not detected and corrected, could lead to reduced control of the aeroplane.

* * * * *

Compliance

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

Actions

(g) Within 6 months after the effective date of this AD, perform a general visual inspection of the inboard hinge fitting area and a detailed inspection of lower stop angles of the inboard hinge fittings on both LH and right-hand (RH) elevators, in accordance with the Accomplishment Instructions of Avions de Transport Régional Service Bulletin ATR42-55-0014, dated May 11, 2010; or Avions de Transport Régional Service Bulletin ATR72-55-1006, dated May 11, 2010; as applicable.

(1) If any damaged angle is found during the inspection required by paragraph (g) of this AD, before further flight, replace the damaged angles with serviceable parts and accomplish a detailed inspection of the adjacent areas to detect any damage, in accordance with the Accomplishment Instructions of Avions de Transport Régional Service Bulletin ATR42-55-0014, dated May 11, 2010; or Avions de Transport Régional Service Bulletin ATR72-55-1006, dated May 11, 2010; as applicable.

(2) If any damage is detected in adjacent areas during the inspection required by paragraph (g)(1) of this AD, before further flight, repair the damage using a method approved by either the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or European Aviation Safety Agency (EASA) (or its delegated agent).

(h) Submit a report of the findings (damaged angles found on the LH and RH side elevator) of the inspection required by paragraph (g) of this AD to ATR Engineering, Service Bulletin Group, 1 Allee Pierre Nadot, 31712 Blagnac Cedex, France, at the applicable time specified in paragraph (h)(1) or (h)(2) of this AD. The report must include the MSN, accomplishment date, registration number, number of flights, flight hours, inspection results, and performed actions. In addition, return any damaged lower stop angles to ATR Engineering, Service Bulletin Group, 1 Allee Pierre Nadot, 31712 Blagnac Cedex, France.

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

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

FAA AD Differences

Note 1: This AD differs from the MCAI and/or service information as follows: 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, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it 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. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding 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: A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW., Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

Related Information

(j) Refer to MCAI EASA Airworthiness Directive 2010-0138, dated July 1, 2010; Avions de Transport Régional Service Bulletin ATR42-55-0014, dated May 11, 2010; and Avions de Transport Régional Service Bulletin ATR72-55-1006, dated May 11, 2010; for related information.

Material Incorporated by Reference

(k) You must use Avions de Transport Régional Service Bulletin ATR42-55-0014, dated May 11, 2010; or Avions de Transport Régional Service Bulletin ATR72-55-1006, dated May 11, 2010; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For service information identified in this AD, contact ATR–GIE Avions de Transport Régional, 1, Allée Pierre Nadot, 31712 Blagnac Cedex, France; telephone +33 (0) 5 62 21 62 21; fax +33 (0) 5 62 21 67 18; email continued.airworthiness@atr.fr; Internet <http://www.aerochain.com>.

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

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

Issued in Renton, Washington, on October 27, 2011.

Kalene C. Yanamura,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.



2011-23-12 Rolls-Royce plc: Amendment 39-16863; Docket No. FAA-2011-1109; Directorate Identifier 2011-NE-33-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective November 29, 2011.

Affected ADs

- (b) None.

Applicability

- (c) This AD applies to Rolls-Royce plc RB211-524G2-19; -524G2-T-19; -524G3-19; 524G3-T-19; 524H2-19; -524H2-T-19; -524H-36; and -524H-T-36 turbofan engines.

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:

Several instances of fan blade cracking have been reported. The results of the subsequent technical investigation concluded that the cracking was caused by fan blade flutter at certain engine settings during prolonged ground running.

This condition, if not corrected, could affect the integrity of the fan blades, leading to cracking of multiple fan blades and could possibly result in engine failure and release of uncontained high energy debris.

We are issuing this AD to prevent fan blade flutter, which could result in an uncontained engine failure and damage to the airplane.

Actions and Compliance

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

(1) Within 40 months after the effective date of this AD, modify the engine by installing a full-authority fuel controller (FAFC) featuring software at Issue 17, in accordance with Accomplishment Instructions paragraphs 3.A. through 3.B. of Rolls-Royce plc Alert Service Bulletin (ASB) No. RB.211-73-AG054, Revision 2, dated June 29, 2011.

(2) Engines which have been modified before the effective date of this AD, in accordance with previous revisions of ASB No. RB.211-73-AG054 are compliant with the requirement of paragraph (e)(1) of this AD.

(3) From the effective date of this AD, do not install an FAFC on an engine if the FAFC incorporates software prior to Issue 17.

FAA AD Differences

(f) None.

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 European Aviation Safety Agency AD 2011-0175, dated September 8, 2011, for related information.

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

Material Incorporated by Reference

(j) You must use Rolls-Royce plc Alert Service Bulletin No. RB.211-73-AG054, Revision 2, dated June 29, 2011, 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, Corporate Communications, P.O. Box 31, Derby, England, DE248BJ; phone: 011-44-1332-242424; fax: 011-44-1332-245418 or email from http://www.rolls-royce.com/contact/civil_team.jsp, or download the publication from <https://www.aeromanager.com>.

(3) You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>. For information on the availability of this material at the FAA, call (781) 238-7125.

Issued in Burlington, Massachusetts, on November 2, 2011.

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