



**FEDERAL AVIATION ADMINISTRATION  
AIRWORTHINESS DIRECTIVES  
LARGE AIRCRAFT**

**BIWEEKLY 2011-25**

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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			
<b>Biweekly 2011-01</b>			
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
<b>Biweekly 2011-02</b>			
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
<b>Biweekly 2011-03</b>			
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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<b>Biweekly 2011-04</b>			
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
<b>Biweekly 2011-05</b>			
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
<b>Biweekly 2011-06</b>			
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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<b>Biweekly 2011-07</b>			
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
<b>Biweekly 2011-08</b>			
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
<b>Biweekly 2011-09</b>			
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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<b>Biweekly 2011-10</b>			
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
<b>Biweekly 2011-11</b>			
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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AD No.	Information	Manufacturer	Applicability
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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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<b>Biweekly 2011-15</b>			
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
<b>Biweekly 2011-16</b>			
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
<b>Biweekly 2011-17</b>			
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

## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
<b>Biweekly 2011-18</b>			
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
<b>Biweekly 2011-19</b>			
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
<b>Biweekly 2011-20</b>			
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			
<b>Biweekly 2011-21</b>			
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
<b>Biweekly 2011-22</b>			
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
<b>Biweekly 2011-23</b>			
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)
<b>Biweekly 2011-24</b>			
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

## 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 2011-25**

2011-24-02		Gulfstream Aerospace	GV and GV-SP
2011-24-03		Bombardier	DHC-8-400, -401, and -402
2011-24-04		Mcdonnell Douglas	DC-10-10, DC-10-10F, and MD-10-10F
2011-24-05	S 2007-16-02	Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, and -313
2011-24-06	S 2010-10-22	BAE Systems (Operations)	BAe 146-100A, -200A, and -300A airplanes; and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2011-24-09		Airbus	A340-211, -212, -213, -311, -312 and -313
2011-24-10		Bombardier	DHC-8-201, and -202
2011-24-11		Honeywell International	Engine: ALF502L-2C, ALF502R-3, ALF502R-3A, ALF502R-5, LF507-1F, and LF507-IH
2011-24-12	S 2010-01-09	Boeing	737-200, -200C, -300, -400, and -500 series



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**2011-24-02 Gulfstream Aerospace Corporation:** Amendment 39-16866; Docket No. FAA-2011-0572; Directorate Identifier 2011-NM-009-AD.

**(a) Effective Date**

This AD is effective January 3, 2012.

**(b) Affected ADs**

None.

**(c) Applicability**

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

- (1) Model GV airplanes having serial numbers (S/Ns) 501 and subsequent.
- (2) Model GV-SP airplanes having S/Ns 5001 through 5308 inclusive.

**(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 2621, Fire bottle, fixed.

**(e) Unsafe Condition**

This AD was prompted by notification from the airplane manufacturer that the third fire extinguisher bottle is mounted in a small-fragment impact zone. We are issuing this AD to prevent penetration of the bottle by fragments released due to a failure of the auxiliary power unit (APU) rotor system. The bottle could rupture and cause substantial damage to primary airframe structure and primary flight controls.

**(f) Compliance**

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

**(g) Inspection**

For all airplanes: Within 21 days after the effective date of this AD, or before removing the APU flight restrictions required by AD 2009-17-01, Amendment 39-15991 (74 FR 40061, August 11, 2009), whichever occurs first, inspect to determine whether a third Halon fire extinguisher bottle for engines is installed in the APU fragment impact zone (rotor fragment impact zone), in accordance with the Accomplishment Instructions of the applicable Gulfstream alert customer bulletin identified in table 1 of this AD.

**Table 1–Applicable Gulfstream Alert Customer Bulletins**

<b>For Model -</b>	<b>Use -</b>	<b>Which includes -</b>	<b>To the -</b>
GV airplanes	Gulfstream V Alert Customer Bulletin 30A, dated December 20, 2010	Gulfstream GV/GV-SP Airplane Flight Manual (AFM) Supplement CE51 628M001, Revision A, dated December 20, 2010	Gulfstream GV AFM
GV-SP (G500) airplanes	Gulfstream G500 Alert Customer Bulletin 10A, dated December 20, 2010	Gulfstream GV/GV-SP AFM Supplement CE51 628M001, Revision A, dated December 20, 2010	Gulfstream GV-SP AFM
GV-SP (G550) airplanes	Gulfstream G550 Alert Customer Bulletin 10A, dated December 20, 2010	Gulfstream GV/GV-SP AFM Supplement CE51 628M001, Revision A, dated December 20, 2010	Gulfstream GV-SP AFM

(1) If the third fire extinguisher bottle is not installed, no further work is required by this paragraph.

(2) For Model GV airplanes in which the third fire extinguisher bottle is installed as a dedicated APU fire bottle configuration, as defined in Gulfstream V Alert Customer Bulletin 30A, dated December 20, 2010 (as a functioning part of the aircraft fire suppression system): Before further flight, revise the Limitations section of the Gulfstream GV AFM to include the information in Gulfstream GV/GV-SP AFM Supplement CE51 628M001, Revision A, dated December 20, 2010 (which is included in Gulfstream V Alert Customer Bulletin 30A, dated December 20, 2010). This AFM supplement adds restrictions for APU usage. Operate the airplane thereafter according to the limitations in this AFM supplement.

**Note 1:** This may be done by inserting a copy of Gulfstream GV/GV-SP AFM Supplement CE51 628M001, Revision A, dated December 20, 2010, in the applicable AFM. When information in this AFM supplement has been included in general revisions of the applicable AFM, the general revisions may be inserted in the applicable AFM, provided the relevant information in the general revision is identical to that in Gulfstream GV/GV-SP AFM Supplement CE51 628M001, Revision A, dated December 20, 2010, and that AFM supplement may be removed.

(3) For Model GV and GV-SP airplanes in which the third fire extinguisher bottle is installed as a spare fire bottle configuration (not connected to the airplane's electrical or fire suppression system), as defined in the applicable Gulfstream alert customer bulletin identified in table 1 of this AD: Do the actions required by paragraph (g)(3)(i) or (g)(3)(ii) of this AD.

(i) Before further flight, remove the bottle, in accordance with the Accomplishment Instructions of the applicable Gulfstream alert customer bulletin identified in table 1 of this AD.

(ii) Before further flight, revise the limitations section of the applicable Gulfstream AFM specified in table 1 of this AD to include the information in Gulfstream GV/GV-SP AFM Supplement CE51 628M001, Revision A, dated December 20, 2010. This AFM supplement adds restrictions for APU usage. Operate the airplane thereafter according to the limitations in that AFM supplement.

**Note 2:** This may be done by inserting a copy of Gulfstream GV/GV-SP AFM Supplement CE51 628M001, Revision A, dated December 20, 2010, in the applicable AFM. When information in this AFM supplement has been included in general revisions of the applicable AFM, the general revisions may be inserted in the applicable AFM, provided the relevant information in the general

revision is identical to that in Gulfstream GV/GV-SP AFM Supplement CE51 628M001, Revision A, dated December 20, 2010, and that AFM supplement may be removed.

#### **(h) Credit for Actions Accomplished in Accordance With Previous Service Information**

Actions accomplished before the effective date of this AD in accordance with Gulfstream V Alert Customer Bulletin 30, dated December 6, 2010, including Gulfstream GV/GV-SP AFM Supplement CE51 628M001, dated November 18, 2010 (for Model GV airplanes); Gulfstream G550 Alert Customer Bulletin 10, dated December 6, 2010, including Gulfstream GV/GV-SP AFM Supplement CE51 628M001, dated November 18, 2010 (for Model GV airplanes); or G500 Alert Customer Bulletin 10, dated December 6, 2010, including Gulfstream GV/GV-SP AFM Supplement CE51 628M001, dated November 18, 2010 (for Model GV airplanes), are acceptable for compliance with the corresponding actions required by paragraph (g) of this AD.

#### **(i) Parts Installation**

As of the effective date of this AD, no person may install a third fire extinguisher bottle in the APU fragment impact zone (rotor fragment impact zone) of any airplane.

#### **(j) No Reporting**

Although the service information specified in paragraphs (j)(1), (j)(2), and (j)(3) of this AD specify to submit certain information to the manufacturer, this AD does not include that requirement.

(1) Gulfstream V Alert Customer Bulletin 30A, dated December 20, 2010, including Gulfstream GV/GV-SP AFM Supplement CE51 628M001, Revision A, dated December 20, 2010, (for Model GV airplanes).

(2) Gulfstream G500 Alert Customer Bulletin 10A, dated December 20, 2010, including Gulfstream GV/GV-SP AFM Supplement CE51 628M001, Revision A, dated December 20, 2010, (for Model GV-SP (G500) airplanes).

(3) Gulfstream G550 Alert Customer Bulletin 10A, dated December 20, 2010, including Gulfstream GV/GV-SP AFM Supplement CE51 628M001, Revision A, dated December 20, 2010, (for Model GV-SP (G550) airplanes).

#### **(k) Special Flight Permit**

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), may be issued to operate the airplane to a location where the requirements of this AD can be accomplished, provided the following conditions are met:

(1) If an airplane is grounded due to a single generator failure, the APU may be operated during a ferry flight, provided no passengers are carried.

(2) Only the minimum required flight-crew is allowed on any ferry flight.

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

(1) The Manager, Atlanta 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. 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 manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD.

(2) 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.

**(m) Related Information**

For more information about this AD, contact Sanford Proveaux, Aerospace Engineer, Continued Operational Safety and Certificate Management Branch, ACE-102A, FAA, Atlanta Aircraft Certification Office (ACO), 1701 Columbia Avenue, College Park, Georgia 30337; telephone (404) 474-5566; fax (404) 474-5606; email: sanford.proveaux@faa.gov.

**(n) Material Incorporated by Reference**

(1) 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:

(2) Gulfstream G500 Alert Customer Bulletin 10A, dated December 20, 2010, including Gulfstream GV/GV-SP airplane flight manual (AFM) Supplement CE51 628M001, Revision A, dated December 20, 2010, approved for IBR January 3, 2012.

(3) Gulfstream G550 Alert Customer Bulletin 10A, dated December 20, 2010, including Gulfstream GV/GV-SP AFM Supplement CE51 628M001, Revision A, dated December 20, 2010, approved for IBR January 3, 2012.

(4) Gulfstream V Alert Customer Bulletin 30A, dated December 20, 2010, including Gulfstream GV/GV-SP AFM Supplement CE51 628M001, Revision A, dated December 20, 2010, approved for IBR January 3, 2012.

(5) For service information identified in this AD, contact Gulfstream Aerospace Corporation, Technical Publications Dept., P.O. Box 2206, Savannah, Georgia 31402-2206; telephone (800) 810-4853; fax (912) 965-3520; e-mail pubs@gulfstream.com; Internet [http://www.gulfstream.com/product\\_support/technical\\_pubs/pubs/index.htm](http://www.gulfstream.com/product_support/technical_pubs/pubs/index.htm). You may review copies of the referenced service information at the FAA.

(6) 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.

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

Issued in Renton, Washington, on November 8, 2011.

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



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**2011-24-03 Bombardier, Inc.:** Amendment 39-16867. Docket No. FAA-2011-0720; Directorate Identifier 2010-NM-252-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective January 3, 2012.

**Affected ADs**

- (b) None.

**Applicability**

- (c) This AD applies to Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes, certificated in any category, having serial numbers 4001 and subsequent.

**Subject**

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

**Reason**

- (e) The mandatory continuing airworthiness information (MCAI) states:  
There has been one reported incident where the main landing gear (MLG) failed to extend during testing of the MLG alternate release system. Investigation revealed that the door release lever bushing was worn, causing an increase in the lateral movement of the release cable system. An increase in free-play within the release cable system would cause additional wear to the door release lever bushing and may lead to the turnbuckle fouling against the nacelle frame. The bushing wear at the door release lever and turnbuckle fouling could cause a failure in the alternate release system, preventing the landing gear from extending in the case of a failure of the normal MLG extension/retraction system.

\* \* \* \* \*

The unsafe condition is loss of control during 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.

**Actions**

- (g) Within 30 days after the effective date of this AD, revise the maintenance program by incorporating Task 323400-203 specified in Bombardier Temporary Revision (TR) MRB-46, dated February 4, 2010, to Section 1-32, Systems/Powerplant Maintenance Program, of the Maintenance

Review Board (MRB) Report Part 1, of the Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1-84-7. The initial compliance time for the actions specified in Bombardier TR MRB-46, dated February 4, 2010, is within 6,000 flight hours after the effective date of this AD. Thereafter, operate the airplane according to the procedures and compliance times in Bombardier TR MRB-46, dated February 4, 2010.

**Note 1:** The revision required by paragraph (g) of this AD may be done by inserting a copy of Bombardier TR MRB-46, dated February 4, 2010, into Section 1-32, Systems/Powerplant Maintenance Program, of the Maintenance Review Board (MRB) Report Part 1, of the Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1-84-7. When Bombardier TR MRB-46, dated February 4, 2010, has been included in general revision of the Bombardier Q400 Dash 8 Maintenance Requirements Manual, the Bombardier Q400 Dash 8 Maintenance Requirements Manual may be removed from Bombardier TR MRB-46, dated February 4, 2010, provided that the relevant information in the general revision is identical to that in Bombardier TR MRB-46, dated February 4, 2010.

### **No Alternative Actions, Intervals, and/or Critical Design Configuration Control Limitations (CDCCLs)**

(h) After accomplishing the revision required by paragraph (g) of this AD, no alternative actions (e.g., inspections), intervals, and/or CDCCLs may be used unless the actions, intervals, and/or CDCCLs are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (i) of this AD.

### **FAA AD Differences**

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

### **Other FAA AD Provisions**

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (ACO), ANE-170, 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 ACO, send it to ATTN: Program Manager, Continuing Operational Safety, 1600 Stewart Avenue, Suite 410, Westbury, NY 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.

(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**

(j) Refer to MCAI Canadian Airworthiness Directive CF-2010-26, dated August 17, 2010; and Bombardier Temporary Revision MRB-46, dated February 4, 2010, to Section 1-32, Systems/Powerplant Maintenance Program, of the Maintenance Review Board Report Part 1, of the Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1-84-7; for related information.

## Material Incorporated by Reference

(k) You must use Bombardier Temporary Revision MRB-46, dated February 4, 2010, to Section 1-32, Systems/Powerplant Maintenance Program, of the Maintenance Review Board Report Part 1, of the Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1-84-7, 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., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone (416) 375-4000; fax (416) 375-4539; email [thd.qseries@aero.bombardier.com](mailto:thd.qseries@aero.bombardier.com); Internet <http://www.bombardier.com>.

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

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

Issued in Renton, Washington, on November 8, 2011.

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



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**2011-24-04 McDonnell Douglas Corporation:** Amendment 39-16868; Docket No. FAA-2010-1206; Directorate Identifier 2009-NM-216-AD.

**(a) Effective Date**

This AD is effective January 3, 2012.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to McDonnell Douglas Corporation Model DC-10-10, DC-10-10F, and MD-10-10F airplanes; certificated in any category; as identified in Boeing Alert Service Bulletin DC10-57A156, Revision 2, dated August 23, 2011.

**(d) Subject**

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

**(e) Unsafe Condition**

This AD results from reports of three instances of fuel leaks in the lower cap splice of the wing rear spar at station Xors=409. The Federal Aviation Administration is issuing this AD to detect and correct cracking on the lower cap of the rear spar of the left and right wings between stations Xors=417 and the outboard edge of the lower cap splice of the wing rear spar at station Xors=400, which could result in fuel leaks or cracking of the lower wing skin and structure, causing possible inability of the structure to sustain the limit load and adversely affecting the structural integrity of the airplane.

**(f) Compliance**

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

**(g) Inspection**

Within 1,750 flight cycles after the effective date of this AD, do an eddy current test high frequency (ETHF) inspection for cracking on the lower cap of the rear spar of the left and right wings between stations Xors=417 and the outboard edge of the lower cap splice of the wing rear spar at station Xors=400, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin DC10-57A156, Revision 2, dated August 23, 2011.

(1) If no cracking is found, repeat the inspection required by paragraph (g) of this AD thereafter at intervals not to exceed 1,750 flight cycles.

(2) If any cracking is found in the spar cap aft leg at the fastener holes, and that cracking can be removed by hole enlargement, before further flight, do a permanent repair, in accordance with Boeing DC-10-10 Service Rework Drawing SR10570048, Revision K, dated October 7, 2010, including Parts List PL SR10570048, Revision K, dated October 14, 2010. Within 1,750 flight cycles after doing the applicable permanent repair, and thereafter at intervals not to exceed 1,750 flight cycles, do ETHF and high frequency eddy current inspections for cracking in accordance with Boeing DC-10-10 Service Rework Drawing SR10570048, Revision K, dated October 7, 2010, including Parts List PL SR10570048, Revision K, dated October 14, 2010. If any cracking is found during any inspection required by this paragraph, before further flight, repair the cracking, in accordance with the procedures specified in paragraph (i) of this AD.

(3) If any cracking is found in the spar cap aft leg at the fastener holes, and that cracking cannot be removed by hole enlargement but it does not extend into the vertical leg, before further flight, do the applicable actions specified in paragraph (g)(3)(i) or (g)(3)(ii) of this AD:

(i) If cracking is found between Station Xors=400 and inboard of Station Xors=408, repair the cracking, in accordance with the procedures specified in paragraph (i) of this AD (Alternative Method of Compliance (AMOCs) paragraph).

(ii) If cracking is found between Stations Xors=408 and Xors=417, do a permanent repair, in accordance with Boeing DC-10-10 Service Rework Drawing SR10570048, Revision K, dated October 7, 2010, including Parts List PL SR10570048, Revision K, dated October 14, 2010. Within 4,550 flight cycles after doing a permanent repair, and thereafter at intervals not to exceed 4,550 flight cycles, do ETHF and ultrasonic inspections for cracking, in accordance with Boeing DC-10-10 Service Rework Drawing SR10570048, Revision K, dated October 7, 2010, including Parts List PL SR10570048, Revision K, dated October 14, 2010. If any cracking is found during any inspection required by this paragraph, before further flight, repair the cracking, in accordance with the procedures specified in paragraph (i) of this AD.

(4) If any cracking is found in the spar cap aft leg at fastener holes and that cracking extends into the vertical leg of the spar cap, do the actions specified in paragraph (g)(4)(i) or (g)(4)(ii) of this AD.

(i) If any cracking is found between Station Xors=400 and inboard of Station Xors=408, before further flight, do the applicable permanent repair, in accordance with Boeing DC-10-10 Service Rework Drawing SR10570019, Revision K, dated April 17, 2009, including Parts List PL SR10570019, Revision K, dated April 23, 2009, including Boeing Engineering Order, Revision L, dated April 14, 2010. Within 4,550 flight cycles after doing the permanent repair, and thereafter at intervals not to exceed 4,550 flight cycles, do ETHF and ultrasonic inspections for cracking of the repaired area, in accordance with Boeing DC-10-10 Service Rework Drawing SR10570019, Revision K, dated April 17, 2009, including Parts List PL SR10570019, Revision K, dated April 23, 2009, including Boeing Engineering Order, Revision L, dated April 14, 2010. If any cracking is found during any inspection required by this paragraph, before further flight, repair the cracking, in accordance with the procedures specified in paragraph (i) of this AD.

(ii) If any cracking is found between Stations Xors=408 and Xors=417, do the actions in paragraphs (g)(4)(ii)(A) or (g)(4)(ii)(B) of this AD.

(A) Do the actions in paragraphs (g)(4)(ii)(A)(1) and (g)(4)(ii)(A)(2) of this AD.

(1) Before further flight, do a temporary repair, in accordance with Boeing DC-10-10 Service Rework Drawing SR10570048, Revision K, dated October 7, 2010, including Parts List PL SR10570048, Revision K, dated October 14, 2010. Within 1,650 flight cycles after doing the temporary repair; and thereafter at intervals not to exceed 1,650 flight cycles, do ETHF and ultrasonic inspections for cracking of the repaired area, in accordance with Boeing DC-10-10 Service Rework Drawing SR10570048, Revision K, dated October 7, 2010, including Parts List PL SR10570048, Revision K, dated October 14, 2010, until the permanent repair required by paragraph (g)(4)(ii)(A)(2) of this AD is done. If any cracking is found during any inspection required by this paragraph, before further flight, repair the cracking, in accordance with the procedures specified in paragraph (i) of this AD.

(2) Within 7,000 flight cycles after the temporary repair has been done, do the applicable permanent repair, in accordance with Boeing DC-10-10 Service Rework Drawing SR10570019, Revision K, dated April 17, 2009, including Parts List PL SR10570019, Revision K, dated April 23, 2009, including Boeing Engineering Order, Revision L, dated April 14, 2010. Within 4,550 flight cycles after doing the permanent repair, and thereafter at intervals not to exceed 4,550 flight cycles, do ETHF and ultrasonic inspections for cracking of the repaired area, in accordance with Boeing DC-10-10 Service Rework Drawing SR10570019, Revision K, dated April 17, 2009, including Parts List PL SR10570019, Revision K, dated April 23, 2009, including Boeing Engineering Order, Revision L, dated April 14, 2010. If any cracking is found during any inspection required by this paragraph, before further flight, repair the cracking, in accordance with the procedures specified in paragraph (i) of this AD.

(B) Before further flight do the applicable permanent repair, in accordance with Boeing DC-10-10 Service Rework Drawing SR10570019, Revision K, dated April 17, 2009, including Parts List PL SR10570019, Revision K, dated April 23, 2009, including Boeing Engineering Order, Revision L, dated April 14, 2010. Within 4,550 flight cycles after doing the permanent repair, and thereafter at intervals not to exceed 4,550 flight cycles, do ETHF and ultrasonic inspections for cracking of the repaired area, in accordance with Boeing DC-10-10 Service Rework Drawing SR10570019, Revision K, dated April 17, 2009, including Parts List PL SR10570019, Revision K, dated April 23, 2009, including Boeing Engineering Order, Revision L, dated April 14, 2010. If any cracking is found during any inspection required by this paragraph, before further flight, repair the cracking, in accordance with the procedures specified in paragraph (i) of this AD.

#### **(h) Credit for Actions Accomplished in Accordance With Previous Service Information**

Actions accomplished before the effective date of this AD according to Boeing Alert Service Bulletin DC10-57A156, dated September 16, 2009; and Revision 1, dated March 10, 2010; are considered acceptable for compliance with the corresponding actions specified in this AD.

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

(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: Nenita Odesa, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles ACO, 3960 Paramount Boulevard, Lakewood, California 90712-4137; phone: (562) 627-5234; fax: (562) 627-5210; email: nenita.odessa@faa.gov.

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

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, 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.

#### **(j) Related Information**

For more information about this AD, contact Nenita Odesa, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles ACO, 3960 Paramount Boulevard, Lakewood, California 90712-4137; phone: (562) 627-5234; fax: (562) 627-5210; email: nenita.odessa@faa.gov.

**(k) Material Incorporated by Reference**

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) Boeing Alert Service Bulletin DC10-57A156, Revision 2, dated August 23, 2011; IBR approved January 3, 2012.

(2) Boeing DC-10-10 Service Rework Drawing SR10570019, Revision K, dated April 17, 2009, including Parts List PL SR10570019, Revision K, dated April 23, 2009, including Boeing Engineering Order, Revision L, dated April 14, 2010; IBR approved January 3, 2012. Only Sheet 1 of this drawing indicates the revision date of this document.

(3) Boeing DC-10-10 Service Rework Drawing SR10570048, Revision K, dated October 7, 2010, including Parts List PL SR10570048, Revision K, dated October 14, 2010; IBR approved January 3, 2012. Only Sheet 1 of this drawing indicates the revision date for this document.

(4) 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; email [dse.boecom@boeing.com](mailto:dse.boecom@boeing.com); Internet <https://www.myboeingfleet.com>.

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

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

Issued in Renton, Washington, on November 7, 2011.

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



**2011-24-05 Airbus:** Amendment 39-16869. Docket No. FAA-2011-0717; Directorate Identifier 2010-NM-108-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective January 3, 2012.

**Affected ADs**

- (b) This AD supersedes AD 2007-16-02, Amendment 39-15141 (72 FR 44731, August 9, 2007).

**Applicability**

(c) This AD applies to the airplanes identified in paragraphs (c)(1) and (c)(2) of this AD; certificated in any category; except as provided by paragraph (c)(3) of this AD.

(1) Airbus Model A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes, all serial numbers, except those on which Airbus modification 55306 or 55792 has been embodied in production.

(2) Airbus Model A340-211, -212, -213, -311, -312, and -313 airplanes, all serial numbers, except those on which Airbus modification 55306 or 55792 has been embodied in production.

(3) This AD is not applicable to Airbus Model A340-211, -212, -213, -311, -312, and -313 airplanes on which the repair specified in Airbus Repair Drawing R57115053, R57115051, or R57115047 (installation of titanium doubler on both sides) has been accomplished. AD 2007-12-08, Amendment 39-15086 (72 FR 31171, June 6, 2007), applies to these airplanes.

**Subject**

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

**Reason**

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

During A330 and A340 aeroplanes fatigue tests, cracks appeared on the right (RH) and left (LH) sides between the crossing area of the keel beam fitting and the front spar of the Centre Wing Box (CWB). This condition, if not corrected, could lead to keel beam rupture which would affect the area structural integrity.

\* \* \* \* \*

**Compliance**

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

**Restatement of Requirements of AD 2007-16-02, Amendment 39-15141 (72 FR 44731, August 9, 2007) With Revised Service Information**

(g) For Model A330-201, -202, -203, -223, -243, -301, -321, -322, -323, -341, -342, and -343 airplanes, except those on which Airbus modification 49202 has been embodied in production, or Airbus Service Bulletin A330-57-3090 has been embodied in service, and Model A340-200 and -300 series airplanes, except those on which Airbus modification 49202 has been embodied in production or Airbus Service Bulletin A340-57-4098 has been embodied in service, and except Model A340-211, -212, -213, -311, -312, and -313 airplanes on which the repair specified in Airbus Repair Drawing R57115053, R57115051, or R57115047 has been accomplished: Do the actions required by paragraphs (h), (l), and (m) of this AD.

(h) For airplanes identified in paragraph (g) of this AD, within the mandatory threshold (flight cycles or flight hours) mentioned in the paragraph 1.E.(2) of Airbus Service Bulletin A340-57-4089, including Appendix 01, Revision 02; or A330-57-3081, including Appendix 01, Revision 02; both dated January 24, 2006; depending on the configuration of the aircraft model; or within 3 months after September 13, 2007 (the effective date of AD 2007-16-02 (72 FR 44731, August 9, 2007)); whichever occurs later: Carry out the NDT (non-destructive test) inspection of the hole(s) of the horizontal flange of the keel beam located on FR 40 datum on RH (right-hand) and/or LH (left-hand) side of the fuselage, in accordance with the instructions of the applicable service bulletin listed in table 1 of this AD. After the effective date of this AD, use only Airbus Mandatory Service Bulletin A330-57-3081, including Appendix 01, Revision 04, dated May 31, 2011; or Airbus Mandatory Service Bulletin A340-57-4089, including Appendix 01, Revision 04, dated May 31, 2011; as applicable. Inspection in accordance with Airbus A330/A340 200-300 Technical Disposition F57D03012810, Issue B, dated August 18, 2003; or Airbus A330/A340 Technical Disposition 582.0651/2002, Issue A, dated October 17, 2002; satisfies the inspection requirements for the first rotating probe inspection which is specified at the inspection threshold of this AD. Doing the inspection required by paragraph (n) of this AD terminates the requirements of this paragraph of this AD.

**Note 1:** In order to prevent large repairs or heavy maintenance, Airbus recommends to perform the above inspection according to recommended thresholds mentioned in paragraph 1.E.(2) of Airbus Service Bulletin A340-57-4089, including Appendix 01, Revision 02; or Airbus Service Bulletin A330-57-3081, including Appendix 01, Revision 02; both dated January 24, 2006.

**Table 1—Acceptable Service Information for Certain Requirements of Paragraph (h) of This AD**

<b>Document</b>	<b>Revision</b>	<b>Date</b>
Airbus Service Bulletin A330-57-3081, including Appendix 01	02	January 24, 2006
Airbus Mandatory Service Bulletin A330-57-3081, including Appendix 01	04	May 31, 2011
Airbus Service Bulletin A340-57-4089, including Appendix 01	02	January 24, 2006
Airbus Mandatory Service Bulletin A340-57-4089, including Appendix 01	04	May 31, 2011

(i) In case of any crack finding during the inspection required by paragraph (h) of this AD, before further flight, contact Airbus in order to get repair instructions before next flight, and repair before further flight.

(j) Should no crack be detected during the inspection required by paragraph (h) of this AD:

(1) Before further flight: Follow up the actions indicated in the flow charts, Figure 7, 8, or 9, of Airbus Service Bulletin A340-57-4089, including Appendix 01, Revision 02, dated January 24, 2006, or Airbus Mandatory Service Bulletin A340-57-4089, including Appendix 01, Revision 04, dated May 31, 2011; or Figure 5, 6, or 7, of Airbus Service Bulletin A330-57-3081, including Appendix 01, Revision 02, dated January 24, 2006, or Airbus Mandatory Service Bulletin A330-57-3081, including Appendix 01, Revision 04, dated May 31, 2011; in accordance with the instructions of Airbus Service Bulletin A340-57-4089, including Appendix 01, Revision 02, dated January 24, 2006, or Airbus Mandatory Service Bulletin A340-57-4089, including Appendix 01, Revision 04, dated May 31, 2011; or Airbus Service Bulletin A330-57-3081, including Appendix 01, Revision 02, dated January 24, 2006, or Airbus Mandatory Service Bulletin A330-57-3081, including Appendix 01, Revision 04, dated May 31, 2011; as applicable.

(2) Within 30 days after September 13, 2007, or within 30 days after doing the inspection required by paragraph (h) of this AD, whichever occurs later: Send the report of actions carried out in paragraph (j)(1) of this AD to Airbus.

(3) Renew the inspection at mandatory intervals given in paragraph 1.E.(2) of Airbus Service Bulletin A340-57-4089, including Appendix 01, Revision 02, dated January 24, 2006; or Airbus Service Bulletin A330-57-3081, including Appendix 01, Revision 02, dated January 24, 2006; as applicable; in accordance with the instructions of Airbus Service Bulletin A340-57-4089, including Appendix 01, Revision 02, dated January 24, 2006, or Airbus Mandatory Service Bulletin A340-57-4089, including Appendix 01, Revision 04, dated May 31, 2011; or Airbus Service Bulletin A330-57-3081, including Appendix 01, Revision 02, dated January 24, 2006, or Airbus Mandatory Service Bulletin A330-57-3081, including Appendix 01, Revision 04, dated May 31, 2011; as applicable; and send the inspection results to Airbus. Doing the inspection required by paragraph (n) of this AD terminates the requirements of this paragraph of this AD.

**Note 2:** In order to prevent large repairs or heavy maintenance, Airbus recommends to perform the above repetitive inspection according to recommended intervals mentioned in paragraph 1.E.(2) of Airbus Service Bulletin A340-57-4089, including Appendix 01, Revision 02, dated January 24, 2006; or Airbus Service Bulletin A330-57-3081, including Appendix 01, Revision 02, dated January 24, 2006.

(k) Upon detection of a crack during a repetitive inspection required by paragraph (j)(3) of this AD, before further flight, contact Airbus to get repair instructions, and repair before further flight.

(l) For airplanes identified in paragraph (g) of this AD: No additional work is required for compliance with paragraph (h) of this AD for aircraft on which the inspection specified in Airbus Service Bulletin A330-57-3081, dated October 30, 2003, or Revision 01, dated May 18, 2004; or Airbus Service Bulletin A340-57-4089, dated October 30, 2003, or Revision 01, dated March 2, 2004, has been accomplished. Nevertheless, the operators must check that their inspection program is in accordance with paragraph 1.E.(2) of Airbus Service Bulletin A340-57-4089, including Appendix 01, Revision 02, dated January 24, 2006; or Airbus Service Bulletin A330-57-3081, including Appendix 01, Revision 02, dated January 24, 2006; as applicable; for the repetitive inspection.

(m) For airplanes identified in paragraph (g) of this AD on which Airbus Modification 41652 is not embodied: When the aircraft has been modified in accordance with Airbus Service Bulletin A330-57-3090, dated March 27, 2006; or Airbus Service Bulletin A340-57-4098, dated March 27, 2006; as applicable; the repetitive inspections required by this AD are cancelled. In case of any crack finding during the modification: Where the applicable service bulletin specifies to contact Airbus, before further flight, contact Airbus to get repair instructions, and repair.

## New Requirements of This AD

(n) At the applicable time in paragraph (n)(1) or (n)(2) of this AD: Do an NDT inspection of the hole(s) of the horizontal flange of the keel beam located on FR 40 datum on RH and/or LH side of the fuselage, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-57-3081, including Appendix 01, Revision 04, dated May 31, 2011; or Airbus Mandatory Service Bulletin A340-57-4089, including Appendix 01, Revision 04, dated May 31, 2011; as applicable. Inspection in accordance with Airbus A330/A340 200-300 Technical Disposition F57D03012810, Issue B, dated August 18, 2003; or Airbus A330/A340 Technical Disposition 582.0651/2002, Issue A, dated October 17, 2002; is acceptable for compliance with the inspection requirements for the first rotating probe inspection required by this paragraph. Doing the inspection required by this paragraph terminates the requirements of paragraphs (h) and (j)(3) of this AD.

(1) For airplanes on which an inspection required by paragraph (h) of this AD has not been done as of the effective date of this AD: At the applicable time specified in paragraph (n)(1)(i) or (n)(1)(ii) of this AD.

(i) For all airplanes except those identified in paragraph (g) of this AD: Within the "Mandatory Threshold" (flight cycles or flight hours) specified in table 1 of paragraph 1.E.(2) of the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-57-3081, including Appendix 01, Revision 04, dated May 31, 2011; or Airbus Mandatory Service Bulletin A340-57-4089, including Appendix 01, Revision 04, dated May 31, 2011; as applicable; or within 3 months after the effective date of this AD; whichever occurs later. The compliance times for configurations 02 through 06 specified in the "Mandatory Threshold" column in table 1 of paragraph 1.E., "Compliance," are total flight cycles and total flight hours.

(ii) For airplanes identified in paragraph (g) of this AD: At the earlier of the times specified in paragraphs (n)(1)(ii)(A) and (n)(1)(ii)(B) of this AD.

(A) Within the "Mandatory Threshold" (flight cycles or flight hours) specified in table 1 of paragraph 1.E.(2) of Airbus Service Bulletin A340-57-4089, including Appendix 01, Revision 02, dated January 24, 2006; or Airbus Service Bulletin A330-57-3081, including Appendix 01, Revision 02, dated January 24, 2006; depending on the configuration of the aircraft model; or within 3 months after September 13, 2007; whichever occurs later. The compliance times for Model A330 post-mod. No. 41652 and pre-mod. No. 44360, post-mod. No. 44360, and pre-mod. No. 49202 (specified in Airbus Service Bulletin A330-57-3081, including Appendix 01, Revision 02, dated January 24, 2006); and Model A340 post-mod. No. 41652, post-mod. No. 43500 and pre-mod. No. 44360, post-mod. No. 44360 and pre-mod. No. 49202, and Weight Variant 027 (specified in Airbus Service Bulletin A340-57-4089, including Appendix 01, Revision 02, dated January 24, 2006); specified in the "Mandatory Threshold" column in table 1 of paragraph 1.E., "Compliance," are total flight cycles and total flight hours.

(B) Within the "Mandatory Threshold" (flight cycles or flight hours) specified in table 1 of paragraph 1.E.(2) of the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-57-3081, including Appendix 01, Revision 04, dated May 31, 2011; or Airbus Mandatory Service Bulletin A340-57-4089, including Appendix 01, Revision 04, dated May 31, 2011; as applicable; or within 3 months after the effective date of this AD; whichever occurs later. The compliance times for configurations 02 through 06 specified in the "Mandatory Threshold" column in table 1 of paragraph 1.E., "Compliance," are total flight cycles and total flight hours.

(2) For airplanes on which an inspection required by paragraph (h) of this AD has been done as of the effective date of this AD: At the earlier of the times specified in paragraphs (n)(2)(i) and (n)(2)(ii) of this AD.

(i) Within the "Mandatory Intervals" given in table 1 of paragraph 1.E.(2) of Airbus Service Bulletin A340-57-4089, including Appendix 01, Revision 02, dated January 24, 2006; or Airbus Service Bulletin A330-57-3081, including Appendix 01, Revision 02, dated January 24, 2006; as applicable.

(ii) Within the applicable “Mandatory Interval” specified in table 1 of Paragraph 1.E.(2). of Airbus Mandatory Service Bulletin A330-57-3081, including Appendix 01, Revision 04, dated May 31, 2011; or Airbus Mandatory Service Bulletin A340-57-4089, including Appendix 01, Revision 04, dated May 31, 2011; as applicable; or within 3 months after the effective date of this AD; whichever occurs later.

**Note 3:** To prevent large repairs or heavy maintenance, Airbus recommends to perform the above inspection according to recommended thresholds specified in paragraph 1.E.(2) of Airbus Mandatory Service Bulletin A330-57-3081, including Appendix 01, Revision 04, dated May 31, 2011; or Airbus Mandatory Service Bulletin A340-57-4089, including Appendix 01, Revision 04, dated May 31, 2011; as applicable.

(o) If any cracking is found during any inspection required by paragraph (n) of this AD, before further flight, repair in accordance with a method approved by the International Branch, ANM-116, Transport Airplane Directorate, FAA, or European Aviation Safety Agency (EASA) (or its delegated agent).

(p) If no cracking is found during any inspection required by paragraph (n) of this AD, do the actions required by paragraphs (p)(1) and (p)(2) of this AD.

(1) Before further flight: Install new or oversized fastener, as applicable; seal the fastener; and do all other applicable actions; in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-57-3081, including Appendix 01, Revision 04, dated May 31, 2011; or Airbus Mandatory Service Bulletin A340-57-4089, including Appendix 01, Revision 04, dated May 31, 2011; as applicable.

(2) Repeat the inspection required by paragraph (n) of this AD thereafter at intervals not to exceed the mandatory intervals specified in Paragraph 1.E.(2). of Airbus Mandatory Service Bulletin A330-57-3081, including Appendix 01, Revision 04, dated May 31, 2011; or Airbus Mandatory Service Bulletin A340-57-4089, including Appendix 01, Revision 04, dated May 31, 2011; as applicable.

**Note 4:** To prevent large repairs or heavy maintenance, Airbus recommends to perform the above repetitive inspection according to recommended intervals mentioned in paragraph 1.E.(2) of Airbus Mandatory Service Bulletin A330-57-3081, including Appendix 01, Revision 04, dated May 31, 2011; or Airbus Mandatory Service Bulletin A340-57-4089, including Appendix 01, Revision 04, dated May 31, 2011; as applicable.

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

(q) Inspections done before the effective date of this AD in accordance with the service information specified in table 2 of this AD are acceptable for compliance with the corresponding inspection required by paragraph (n) of this AD.

**Table 2–Credit Service Information for Certain Actions**

<b>Document</b>	<b>Revision</b>	<b>Date</b>
Airbus Service Bulletin A330- 57-3081, including Appendix 01	02	January 24, 2006
Airbus Mandatory Service Bulletin A330-57-3081	03	July 31, 2009
Airbus Service Bulletin A340-57-4089, including Appendix 01	02	January 24, 2006

Airbus Mandatory Service Bulletin A340-57-4089	03	July 31, 2009
Airbus Service Bulletin A330-57-3081		October 30, 2003
Airbus Service Bulletin A330-57-3081	01	May 18, 2004
Airbus Service Bulletin A340-57-4089		October 30, 2003
Airbus Service Bulletin A340-57-4089	01	March 2, 2004

(r) Modifying the fasteners installation in the junction keel beam fitting at FR 40, in accordance with Airbus Service Bulletin A330-57-3098, dated August 30, 2007; or Airbus Service Bulletin A340-57-4106, dated August 30, 2007; as applicable; before the effective date of this AD terminates the requirements of this AD; except for airplanes on which a crack was detected at hole 5 before oversizing of the keel beam (in accordance with step 3.B.(1)(b)3 of the Accomplishment Instructions of Airbus Service Bulletin A330-57-3098, dated August 30, 2007; or Airbus Service Bulletin A340-57-4106, dated August 30, 2007), before further flight, repair in accordance with a method approved by the International Branch, ANM-116, Transport Airplane Directorate, FAA, or EASA (or its delegated agent).

(s) Modifying the fasteners installation in the junction keel beam fitting at FR 40, in accordance with Airbus Service Bulletin A330-57-3098, excluding Appendix 1, Revision 01, dated July 31, 2009; or Airbus Service Bulletin A340-57-4106, excluding Appendix 1, Revision 01, dated July 31, 2009; as applicable; terminates the requirements of this AD.

(t) Modifying the fasteners installation in the junction keel beam fitting at FR 40, in accordance with Airbus Service Bulletin A330-57-3090, dated March 27, 2006; or Airbus Service Bulletin A340-57-4098, dated March 27, 2006; as applicable; terminates the requirements of this AD.

(u) In case of any crack finding during any modification specified paragraphs (r), (s), and (t) of this AD: Where the applicable service bulletin specifies to contact Airbus, before further flight, repair in accordance with a method approved by the International Branch, FAA, or EASA (or its delegated agent).

### FAA AD Differences

**Note 5:** This AD differs from the MCAI and/or service information as follows: No differences.

### Other FAA AD Provisions

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

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

(w) Refer to MCAI European Aviation Safety Agency Airworthiness Directive 2010-0024, dated February 12, 2010, and the applicable service information specified in table 3 of this AD, for related information.

**Table 3–Related Service Information**

<b>Document</b>	<b>Revision</b>	<b>Date</b>
Airbus Service Bulletin A330-57-3081, including Appendix 01	02	January 24, 2006
Airbus Mandatory Service Bulletin A330-57-3081, including Appendix 01	04	May 31, 2011
Airbus Service Bulletin A340-57-4089, including Appendix 01	02	January 24, 2006
Airbus Mandatory Service Bulletin A340-57-4089, including Appendix 01	04	May 31, 2011
Airbus Service Bulletin A330- 57-3090		March 27, 2006
Airbus Service Bulletin A330-57-3098, excluding Appendix 1	01	July 31, 2009
Airbus Service Bulletin A340-57-4106, excluding Appendix 1	01	July 31, 2009
Airbus Service Bulletin A340-57-4098		March 27, 2006
Airbus A330/A340 200-300 Technical Disposition F57D03012810	Issue B	August 18, 2003
Airbus A330/A340 Technical Disposition 582.0651/2002	Issue A	October 17, 2002

### Material Incorporated by Reference

(x) You must use the following service information specified in paragraphs (x)(1), (x)(2), (x)(7), (x)(8), (x)(9), and (x)(10) of this AD, as applicable, to do the actions required by this AD, unless the AD specifies otherwise. If you accomplish the optional actions specified by this AD, you must use the service information specified in paragraphs (x)(3), (x)(4), (x)(5), (x)(6), (x)(9), and (x)(10) of this

AD, as applicable, to perform those actions, 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) Airbus Mandatory Service Bulletin A330-57-3081, including Appendix 01, Revision 04, dated May 31, 2011, approved for IBR January 3, 2012.

(2) Airbus Mandatory Service Bulletin A340-57-4089, including Appendix 01, Revision 04, dated May 31, 2011, approved for IBR January 3, 2012.

(3) Airbus Service Bulletin A330-57-3098, excluding Appendix 1, Revision 01, dated July 31, 2009, approved for IBR January 3, 2012.

(4) Airbus Service Bulletin A340-57-4106, excluding Appendix 1, Revision 01, dated July 31, 2009, approved for IBR January 3, 2012.

(5) Airbus A330/A340 200-300 Technical Disposition F57D03012810, Issue B, dated August 18, 2003, approved for IBR January 3, 2012.

(6) Airbus A330/A340 Technical Disposition 582.0651/2002, Issue A, dated October 17, 2002, approved for IBR January 3, 2012.

(7) Airbus Service Bulletin A330-57-3081, including Appendix 01, Revision 02, dated January 24, 2006, approved for IBR September 13, 2007 (72 FR 44731, August 9, 2007).

(8) Airbus Service Bulletin A340-57-4089, including Appendix 01, Revision 02, dated January 24, 2006, approved for IBR September 13, 2007 (72 FR 44731, August 9, 2007).

(9) Airbus Service Bulletin A330-57-3090, March 27, 2006, approved for IBR September 13, 2007 (72 FR 44731, August 9, 2007).

(10) Airbus Service Bulletin A340-57-4098, March 27, 2006, approved for IBR September 13, 2007 (72 FR 44731, August 9, 2007).

(11) 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; email [airworthiness.A330-A340@airbus.com](mailto:airworthiness.A330-A340@airbus.com); Internet <http://www.airbus.com>.

(12) 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.

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

Issued in Renton, Washington, on November 7, 2011.

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



**2011-24-06 BAE SYSTEMS (Operations) Limited:** Amendment 39-16870. Docket No. FAA-2011-0908; Directorate Identifier 2010-NM-251-AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective January 3, 2012.

**Affected ADs**

(b) This AD supersedes AD 2010-10-22, Amendment 39-16301 (75 FR 28463, May 21, 2010).

**Applicability**

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

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

**Subject**

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

**Reason**

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

\* \* \* \* \*

\* \* \* BAE Systems (Operations) Limited amended Chapter 05-10-15 of the AMM [aircraft maintenance manual] to introduce a new hydraulic filter assembly life limit and to remove the tables containing the Mandatory Life Limitations (Landings) on the Bolts and Pins as the information is now included in the SSID [Supplemental Structural Inspection Document] which is already mandated by the same AD. In addition, BAE Systems amended Chapter 05-10-15 of the AMM to enable the use of RJ85 MLG [main landing gear] main fittings for lighter weight 146-200 aircraft using the same safe life of 50,000 Flight Cycles (FC) and the use of RJ100 MLG main fittings for lighter weight RJ85, 146-200 and 146-300 aircraft using the same safe life of 40,000 FC.

\* \* \* \* \*

## Compliance

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

### Restatement of Certain Requirements of AD 2010-10-22, Amendment 39-16301 (75 FR 28463, May 21, 2010)

#### New Airworthiness Limitations Revisions

(g) Within 90 days after June 25, 2010 (the effective date of AD 2010-10-22, Amendment 39-16301 (75 FR 28463, May 21, 2010)), revise the maintenance program, by incorporating Chapter 5 of the BAE SYSTEMS (Operations) Limited BAe146 Series/Avro 146-RJ Series AMM to incorporate new and more restrictive life limits for certain items and new and more restrictive inspections to detect fatigue cracking in certain structures, and to add fuel system critical design configuration control limitations (CDCCLs) to prevent ignition sources in the fuel tanks, in accordance with a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA) (or its delegated agent).

#### Note 2:

Guidance on revising Chapter 5 of the BAE SYSTEMS (Operations) Limited BAe146 Series/Avro 146-RJ Series AMM, Revision 97, dated July 15, 2009, can be found in the applicable sub-chapters listed in Table 1 of this AD.

**Table 1—Applicable AMM Sub-Chapters**

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

<sup>1</sup>Applicable only to airplanes post-modification HCM20011A or HCM20012A or HCM20013A.

<sup>2</sup>Applicable only to airplanes post-modification HCM20010A.

<sup>3</sup>Paragraphs 5 and 6 only, on the Corrosion Prevention and Control Program (CPCP) and the Supplemental Structural Inspection Document (SSID).

**Note 3:** Sub-chapter 05-15-00 of the BAE SYSTEMS (Operations) Limited BAe146 Series/Avro 146-RJ Series AMM, is the CDCCL.

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

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

**Note 6:** Notwithstanding any other maintenance or operational requirements, components that have been identified as airworthy or installed on the affected airplanes before revision of Chapter 5 of the AMM, as required by paragraph (g) of this AD, do not need to be reworked in accordance with the CDCCLs. However, once the ALS or AMM has been revised, future maintenance actions on these components must be done in accordance with the CDCCLs.

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

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

## **New Requirements of This AD**

### **New Airworthiness Limitations Revisions**

(j) Within 90 days after the effective date of this AD, revise the maintenance program, by incorporating Subject 05-10-15, "Aircraft Equipment Airworthiness Limitations" of Chapter 05, "Time Limits/Maintenance Checks," of the BAE SYSTEMS (Operations) Limited BAe 146 Series/Avro 146-RJ Series AMM, Revision 104, dated April 15, 2011, to remove life limits on shock absorber assemblies, but not the individual shock absorber components, amend life limits on MLG up-locks and door up-locks, and to introduce and amend life limits on MLG components. Incorporating the new life limits and inspections into the maintenance program terminates the requirements of paragraph (g) of this AD for Subject 05-10-15, "Aircraft Equipment Airworthiness Limitations" of Chapter 05, "Time Limits/Maintenance Checks," of the BAE SYSTEMS (Operations) Limited BAe 146 Series/Avro 146-RJ Series AMM, Revision 104, dated April 15, 2011, and after incorporation has been done, the limitations required by paragraph (g) of this AD for Subject 05-10-15, "Aircraft Equipment Airworthiness Limitations" of Chapter 05, "Time

Limits/Maintenance Checks," of the BAE SYSTEMS (Operations) Limited BAe 146 Series/Avro 146-RJ Series AMM, Revision 104, dated April 15, 2011, may be removed from the maintenance program.

### **No Alternative Actions, Intervals, and/or Critical Design Configuration Control Limitations (CDCCLs)**

(k) After accomplishing the revision required by paragraph (j) of this AD, no alternative actions (e.g., inspections), intervals, and/or CDCCLs may be used, unless the actions, intervals, and/or CDCCLs are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (l)(1) of this AD.

### **FAA AD Differences**

**Note 7:** This AD differs from the MCAI and/or service information as follows: No differences.

### **Other FAA AD Provisions**

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, 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. 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: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1175; fax (425) 227-1149. 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**

(m) Refer to MCAI EASA Airworthiness Directive 2011-0048, dated March 18, 2011; Subject 05-10-15, "Aircraft Equipment Airworthiness Limitations," of Chapter 05, "Time Limits/Maintenance Checks," of the BAE SYSTEMS (Operations) Limited BAe 146 Series/Avro 146-RJ Series AMM, Revision 104, dated April 15, 2011; and Messier-Dowty Service Bulletin 146-32-171, dated August 11, 2009; for related information.

## Material Incorporated by Reference

(n) You must use Subject 05-10-15, "Aircraft Equipment Airworthiness Limitations," of Chapter 05, "Time Limits/Maintenance Checks," of the BAE SYSTEMS (Operations) Limited BAe 146 Series/Avro 146-RJ Series Aircraft Maintenance Manual (AMM), Revision 104, dated April 15, 2011, to do the applicable actions required by this AD, unless the AD specifies otherwise. If you do the optional modification specified in this AD, you must use Messier-Dowty Service Bulletin 146-32-171, dated August 11, 2009, to do those actions, unless the AD specifies otherwise. Only the transmittal letter and Chapter 05 List of Effective Pages contain the date of Revision 104 of the BAE Systems (Operations) Limited BAe 146 Series/Avro 146-RJ Series AMM.

(1) The Director of the Federal Register approved the incorporation by reference of Subject 05-10-15, "Aircraft Equipment Airworthiness Limitations," of Chapter 05, "Time Limits/Maintenance Checks," of the BAE SYSTEMS (Operations) Limited BAe 146 Series/Avro 146-RJ Series AMM, Revision 104, dated April 15, 2011, under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The Director of the Federal Register previously approved the incorporation by reference of Messier-Dowty Service Bulletin 146-32-171, dated August 11, 2009, on June 25, 2010 (75 FR 28463, May 21, 2010).

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

(4) For Messier-Dowty service information identified in this AD, contact Messier-Dowty: Messier Services Americas, Customer Support Center, 45360 Severn Way, Sterling, Virginia 20166-8910; telephone (703) 450-8233; fax (703) 404-1621; Internet <https://techpubs.services/messier-dowty.com>.

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

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

Issued in Renton, Washington, on November 8, 2011.

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



**2011-24-09 Airbus:** Amendment 39-16873. Docket No. FAA-2011-1232; Directorate Identifier 2011-NM-039-AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective December 14, 2011.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Airbus Model A340-211, -212, -213, -311, -312 and -313 airplanes, certificated in any category, all manufacturer serial numbers, on which Airbus modification 41600 has been embodied in production and Airbus Service Bulletin A340-28-4097, dated June 14, 2004; Revision 01, dated March 3, 2005; Revision 02, dated August 16, 2006; or Revision 03, dated July 3, 2007; has been embodied in service, except airplanes on which Airbus modification 49135 has been embodied in production.

**Subject**

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

**Reason**

(e) The mandatory continued airworthiness information (MCAI) states:  
[T]he FAA published SFAR 88 (Special Federal Aviation Regulation 88) [(66 FR 23086, May 7, 2001)].

By mail referenced 04/00/02/07/01-L296 of March 4th, 2002 and 04/00/02/07/03-L024 of February 3rd, 2003 the JAA [Joint Aviation Authorities] recommended to the National Aviation Authorities (NAA) the application of a similar regulation.

The aim of this [EASA] regulation is to require \* \* \* a definition review against explosion hazards.

\* \* \* \* \*

This AD requires inspections to verify electrical bonding to prevent the potential of ignition sources inside fuel tanks, which, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane.

**Compliance**

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

## Actions

(g) Within 24 months after the effective date of this AD, do a detailed inspection of the electrical bonding for the water drain system (trim tank) and the ventilation intake system to verify whether it is equivalent to the electrical bonding done in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A340-28-4097, Revision 05, including Appendix 1, dated June 3, 2010.

(h) If, during the inspection required by paragraph (g) of this AD, the electrical bonding of the water drain system and the ventilation intake system is found to be not equivalent to the electrical bonding done in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A340-28-4097, Revision 05, including Appendix 1, dated June 3, 2010: Within 24 months after the effective date of this AD, modify the electrical bonding associated with the airplane configuration in accordance with paragraph 3.B.(11) or 3.B.(12), as applicable, of the Accomplishment Instructions of Airbus Mandatory Service Bulletin A340-28-4097, Revision 05, including Appendix 1, dated June 3, 2010.

(i) A review of the airplane maintenance records is acceptable in lieu of the inspection required by paragraph (g) of this AD provided that the accomplishment of the electrical bonding for the water drain system (trim tank) and the ventilation intake system can be conclusively identified as performed in accordance with Airbus Mandatory Service Bulletin A340-28-4097, Revision 05, including Appendix 1, dated June 3, 2010.

## FAA AD Differences

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

## Other FAA AD Provisions

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, 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: 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. 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 Mandatory Continuing Airworthiness Information (MCAI) European Aviation Safety Agency (EASA) Airworthiness Directive 2010-0232, dated November 12, 2010; and Airbus Mandatory Service Bulletin A340-28-4097, Revision 05, including Appendix 1, dated June 3, 2010; for related information.

## Material Incorporated by Reference

(1) You must use Airbus Mandatory Service Bulletin A340-28-4097, Revision 05, including Appendix 1, dated June 3, 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 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; email [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 November 14, 2011.

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



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**2011-24-10 Bombardier, Inc.:** Amendment 39-16874. Docket No. FAA-2011-1256; Directorate Identifier 2011-NM-036-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective December 16, 2011.

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to Bombardier, Inc. Model DHC-8-201, and -202 airplanes; certificated in any category; serial numbers 003 and subsequent with FAA Supplemental Type Certificate (STC) ST00753NY (Transport Canada Civil Aviation (TCCA) STC SA97-106) installed.

**Subject**

- (d) Air Transport Association (ATA) of America Code 25: Equipment/Furnishings.

**Reason**

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

It has been determined that modifications by DECA Aviation Engineering Limited on Bombardier Inc. DHC-8 Series \* \* \* 200 aeroplanes with their Cargo Conversion and Abrasion Protection Systems, Supplemental Type Certificates (STCs) \* \* \* SA97-106, provide inadequate fire protection and decompression venting means. This can lead to an uncontrolled cargo fire and structural damage.

\* \* \* \* \*

**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.

**Cargo Conversion System and Combi Abrasion Protection System Removal**

- (g) Within 60 days after the effective date of this AD: Remove the DECA Aviation Engineering Limited Combi Abrasion Protection System configurations previously installed by using FAA STC ST00753NY (TCCA STC SA97-106), in accordance with the removal instructions specified in DECA Engineering Order EI4394, Revision 2, dated February 5, 2011.

## **Parts Installation**

(h) As of the effective date of this AD, no person may install the DECA Aviation Engineering Limited Combi Abrasion Protection Systems configurations by using FAA STC ST00753NY (TCCA STC SA97-106), on any airplane.

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

(i) Removing the DECA Combi Abrasion Protection System in accordance with DECA Engineering Order EI4394, Revision 1, dated January 13, 2011, before the effective date of this AD is acceptable for compliance with the corresponding removal required by paragraph (g) of this AD.

## **FAA AD Differences**

Note 1: This AD differs from the MCAI and/or service information as follows: This FAA AD only applies to Model DHC-8 Series 200 airplanes with Supplemental Type Certificate (STC) FAA ST00753NY (TCCA STC SA97-106) installed. The FAA has not approved any STC equivalent to Model DHC-8 series 100 TCCA STC SA00-107.

## **Other FAA AD Provisions**

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. 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 ACO, send it 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.

(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 Mandatory Continuing Airworthiness Information (MCAI) Transport Canada Civil Aviation (TCCA), Airworthiness Directive CF-2011-02, dated February 1, 2011; and DECA Engineering Order EI4394, Revision 2, dated February 5, 2011; for related information.

## **Material Incorporated by Reference**

(l) You must use DECA Engineering Order EI4394, Revision 2, dated February 5, 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 DECA Aviation Engineering Limited, 7050 Telford Way Suite 200, Mississauga, Ontario, Canada L5S 1V7; telephone (905) 405-1371; fax (905) 405-1373; email [inquiry@deca-aviation.com](mailto:inquiry@deca-aviation.com); Internet <http://www.deca-aviation.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 November 10, 2011.

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



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**2011-24-11 Honeywell International Inc. Turbofan Engines:** Amendment 39-16875; Docket No. FAA-2011-1261; Directorate Identifier 2011-NE-38-AD.

**(a) Effective Date**

This AD is effective December 14, 2011.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Honeywell International Inc. ALF502L-2C, ALF502R-3, ALF502R-3A, ALF502R-5, LF507-1F, and LF507-IH turbofan engines with any of the second stage high pressure compressor (HPC2) discs, part number (P/N) 2-101-332-12, serial numbers (S/N) listed in Table 2 of Honeywell International Inc. Service Bulletin (SB) No. ALF/LF-72-1113, dated September 16, 2011, installed.

**(d) Unsafe Condition**

This AD was prompted by a report of cracks found in an HPC2 disc during routine inspection. We are issuing this AD to prevent the affected discs from fracturing before reaching the currently published life limit. A disc fracture could result in an uncontained failure of the disc and damage to the airplane.

**(e) Compliance**

Comply with this AD before accumulating 4,500 cycles-since-new on the affected HPC2 disc, or before exceeding 7 years after the effective date of this AD, whichever occurs first, unless already done.

**(f) Removal of Affected HPC2 Discs**

Remove from service HPC2 discs, P/N 2-101-332-12, S/Ns listed in Table 2 of Honeywell International Inc. SB No. ALF/LF-72-1113, dated September 16, 2011.

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

The Manager, Los Angeles Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

**(h) Related Information**

For more information about this AD, contact Robert Baitoo, Aerospace Engineer, Los Angeles Aircraft Certification Office, FAA, 3960 Paramount Blvd., Lakewood, CA 90712; phone: (562) 627-5245; fax: (562) 627-5210; email: robert.baitoo@faa.gov.

**(i) Material Incorporated by Reference**

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) Honeywell International Inc. Service Bulletin No. ALF/LF-72-1113, dated September 16, 2011, approved for IBR December 14, 2011.

(2) For service information identified in this AD, contact Honeywell International Inc., P.O. Box 52181, Phoenix, AZ 85072-2181, phone: (800) 601-3099; Web site: <http://portal.honeywell.com/wps/portal/aero>.

(3) 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.

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

Issued in Burlington, Massachusetts, on November 15, 2011.

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



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**2011-24-12 The Boeing Company:** Amendment 39-16876; Docket No. FAA-2011-0914; Directorate Identifier 2010-NM-166-AD.

**(a) Effective Date**

This airworthiness directive (AD) is effective January 5, 2012.

**(b) Affected ADs**

This AD supersedes AD 2010-01-09, Amendment 39-16167 (75 FR 1527, January 12, 2010).

**(c) Applicability**

This AD applies to all The Boeing Company Model 737-200, -200C, -300, -400, and -500 series airplanes, certificated in any category.

**(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 53, Fuselage.

**(e) Unsafe Condition**

This AD was prompted by reports of additional crack findings of the fuselage crown skin at the chem-milled steps. We are issuing this AD to detect and correct fatigue cracking of the fuselage skin panels at the chem-milled steps, which could result in sudden fracture and failure of the fuselage skin panels, and consequent rapid decompression of the airplane.

**(f) Compliance**

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

**Restatement of Requirements of AD 2010-01-09, Amendment 39-16167 (75 FR 1527, January 12, 2010)**

**(g) Initial and Repetitive Inspections**

For airplanes identified in Boeing Alert Service Bulletin 737-53A1301, dated September 3, 2009: Before the accumulation of 35,000 total flight cycles, or within 500 flight cycles after February 16, 2010 (the effective date of AD 2010-01-09), whichever occurs later, except as provided by paragraph (i) of this AD, do an external non-destructive inspection (NDI) to detect cracks in the fuselage skin along the chem-mill steps at stringers S-1 and S-2 right, between station (STA) 827 and STA 847, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1301, dated September 3, 2009; or Boeing Alert Service Bulletin 737-53A1301, Revision 2, dated April 25, 2011. If no cracking is found, repeat the inspection thereafter at intervals not to

exceed 500 flight cycles; except as provided by paragraphs (i) and (n) of this AD. Accomplishing the inspections required by paragraph (j) of this AD terminates the inspections required by this paragraph.

#### **(h) Repair**

If any crack is found during any inspection required by paragraph (g) of this AD, and Boeing Alert Service Bulletin 737-53A1301, dated September 3, 2009; or Boeing Alert Service Bulletin 737-53A1301, Revision 2, dated April 25, 2011; specifies to contact Boeing for repair instructions: Before further flight, repair the crack using a method approved in accordance with the procedures specified in paragraph (q) of this AD.

#### **(i) Optional Terminating Action for Repetitive Inspections in Paragraph (g) of This AD**

Installing an external repair doubler along the chem-milled steps at stringers S-1 and S-2 right, between STA 827 and STA 847, constitutes terminating action for the repetitive inspections required by paragraph (g) of this AD for the repaired area only, provided all of the conditions specified in paragraphs (i)(1), (i)(2), and (i)(3) of this AD are met.

(1) The repair is installed after September 3, 2009;

(2) The repair was approved by the FAA or by a Boeing Company Authorized Representative or the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle Aircraft Certification Office (ACO), FAA, to make such findings; and

(3) The repair extends a minimum of three rows of fasteners on each side of the chem-mill line in the circumferential direction.

#### **New Inspections Including Additional Locations and Reduced Inspection Intervals**

#### **(j) Groups 1 Through 25: Initial and Repetitive Inspections**

For Groups 1 through 25 airplanes identified in Boeing Alert Service Bulletin 737-53A1301, Revision 2, dated April 25, 2011: Except as provided by paragraph (k) of this AD, at the applicable time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1301, Revision 2, dated April 25, 2011, do the applicable inspections required by paragraphs (j)(1) and (j)(2) of this AD, in accordance with paragraphs 3.B.1 through 3.B.25 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1301, Revision 2, dated April 25, 2011. If no cracking is found, repeat the applicable inspections thereafter at the applicable intervals specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1301, Revision 2, dated April 25, 2011; except as provided by paragraphs (m) and (n) of this AD. Doing the inspections required by this paragraph terminates the inspections required by paragraph (g) of this AD.

(1) For Groups 2, 8, 10, 13 through 18, and 21 through 25 airplanes: Do a detailed inspection and an external non-destructive inspection (NDI) (medium frequency eddy current inspection, magneto optical imaging inspection, c-scan inspection, or ultrasonic phased array inspection) for cracking in the fuselage skin at the chem-mill steps at stringers S-1 and S-2R between STA 827 and STA 847, as identified in the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1301, Revision 2, dated April 25, 2011.

(2) For Groups 1 through 25 airplanes: Do a detailed inspection and an external NDI (medium frequency eddy current inspection; magneto optical imaging inspection, c-scan inspection, or ultrasonic phased array inspection) for cracking in the fuselage skin at the chem-mill steps at the specified locations other than at S-1 and S-2R between STA 827 and STA 847, as identified in the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1301, Revision 2, dated April 25, 2011.

Note 1: Option 1 of Boeing Alert Service Bulletin 737-53A1301, Revision 2, dated April 25, 2011, specifies a detailed inspection, and one additional inspection (external NDI, medium frequency eddy current inspection, magneto optical imaging inspection, or c-scan inspection). Option 2 of Boeing Alert Service Bulletin 737-53A1301, Revision 2, dated April 25, 2011, specifies a detailed inspection and an external ultrasonic phased array inspection. These options have different compliance times after the initial inspection.

**(k) Exception**

Where Boeing Alert Service Bulletin 737-53A1301, Revision 2, dated April 25, 2011, specifies a compliance time after "the date of Revision 1," or "the date of Revision 2" of that service bulletin, this AD requires compliance within the specified time after the effective date of this AD.

**(l) Repair**

If any crack is found during any inspection required by paragraph (j) of this AD: Before further flight, repair the crack using a method approved in accordance with the procedures specified in paragraph (q) of this AD. Doing the repair ends the repetitive inspections required by paragraph (j) for the repaired area only.

**(m) Optional Terminating Action for Repetitive Inspections**

Installing an external repair doubler along the chem-milled steps at any location identified in Boeing Alert Service Bulletin 737-53A1301, Revision 2, dated April 25, 2011, constitutes terminating action for the repetitive inspections required by paragraph (j) of this AD for the repaired area only, provided all of the conditions specified in paragraphs (m)(1), (m)(2), and (m)(3) of this AD are met.

(1) The repair is installed after the applicable date specified in paragraph (m)(1)(i) and (m)(1)(ii) of this AD.

(i) For repairs at S-1 and S-2R between STA 827 and STA 847: Installed after September 3, 2009.

(ii) For repairs at locations other than at S-1 and S-2R between STA 827 and STA 847: Installed after June 7, 2010.

(2) The repair was approved by the FAA or by a Boeing Company Authorized Representative or the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle Aircraft Certification Office (ACO) to make such findings; and

(3) The repair extends a minimum of three rows of fasteners on each side of the chem-mill line in the circumferential direction.

**(n) Modification**

Accomplishing a modification of the chem-milled steps at any location identified in Boeing Alert Service Bulletin 737-53A1301, Revision 2, dated April 25, 2011, using a method approved in accordance with the procedures specified in paragraph (q)(1) of this AD, terminates the repetitive inspections required by paragraphs (g) and (j) of this AD for the modified area only.

**(o) Group 26 Airplanes**

For Group 26 airplanes identified in Boeing Alert Service Bulletin 737-53A1301, Revision 2, dated April 25, 2011: Within 1,800 flight cycles after the effective date of this AD, accomplish applicable inspections and corrective action, as identified in the service bulletin, using a method approved in accordance with the procedures specified in paragraph (q)(1) of this AD.

**(p) Credit for Actions Accomplished in Accordance With Previous Service Information**

Actions done before the effective date of this AD in accordance with Boeing Alert Service Bulletin 737-53A1301, Revision 1, dated June 7, 2010, are acceptable for compliance with the corresponding requirements of this AD.

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

(1) The Manager, Seattle ACO, 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 manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) 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.

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

**(r) Related Information**

For more information about this AD, contact Wayne Lockett, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: (425) 917-6447; fax: (425) 917-6590; email: wayne.lockett@faa.gov.

**(s) Material Incorporated by Reference**

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) Boeing Alert Service Bulletin 737-53A1301, Revision 2, dated April 25, 2011, approved for IBR January 5, 2012.

(2) Boeing Alert Service Bulletin 737-53A1301, dated September 3, 2009, approved for IBR February 16, 2010 (75 FR 1527, January 12, 2010).

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

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

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

Issued in Renton, Washington, on November 17, 2011.  
John P. Piccola,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.