FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES
LARGE AIRCRAFT

BIWEEKLY 2011-20

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LARGE AIRCRAFT

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

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Biweekly 2011-04

2011-02-07	S 2010-12-10	General Electric	Engine: CF6-45A, CF6-45A2, CF6-50A, CF6-50C, CF6-50CA, CF6-50C1, CF6-50C2, CF6-50C2B, CF6-50C2D, CF6-50E, CF6-50E1, CF6-50E2, CF6-50C2-F and CF6-50C2-R
2011-03-07		Fokker Services	F.28 Mark 1000, 2000, 3000, 4000, and F.28 Mark 0100
2011-03-08		Bombardier	CL-215-1A10 (CL-215), CL-215-6B11 (CL-215T Variant), and CL-215-6B11 (CL-415 Variant)
2011-03-09		Boeing	MD-90-30
2011-03-10	S 2005-20-32	Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, and -313
2011-03-11		Airbus	A300 B4-601, B4-603, B4-620, B4-622, A300 B4-605R, B4-622R, A300 F4-605R, and A300 C4-605R Variant F
2011-03-12		Hawker Beechcraft	400A and 400T
2011-03-13		Bombardier	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900)
2011-03-14		Boeing	737-100, -200, -200C, -300, -400, -500 series, and 737-400 series
2011-04-02		Hamilton Sundstrand	Propeller: 247F series

Biweekly 2011-05

2011-03-15		Boeing	767-200, -300, -300F, and -400ER series
2011-03-16		Cessna	750
2011-04-01		Fokker	F.28 Mark 0070 and 0100
2011-04-03		Bombardier	CL-600-2B19 (Regional Jet Series 100 and 440)
2011-04-04	S 2005-18-02	Pratt & Whitney	Engine: JT8D-209, -217, -217A, -217C, and -219 turbofan
2011-04-05		Airbus	A340-211, -212, -213; A340-311, -312, -313; A340-541; and A340-642
2011-04-06		Airbus	A340-211, -212, -213; A340-311, -312, -313; A340-541; A340-642
2011-04-07		Fokker	F.28 Mark 0070 and 0100
2011-04-08		Learjet	45
2011-04-10	S 2009-23-10	Boeing	737-300, -400, and -500 series
2011-05-03	S 2005-06-04	Bombardier	CL-600-2B19 (Regional Jet Series 100 & 440)
2011-05-04	S 2008-23-19	Boeing	757-200, -200CB, -200PF, and -300 series
2011-05-05		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, -313, -541, and -642

Biweekly 2011-06

98-09-27R1		Rolls-Royce plc	Engine: RB211-Trent 768, 772, and 772B turbofan
2011-04-09		Transport Category Airplanes	Transport Category Airplanes
2011-05-10		BAE Systems (Operations) Limited	ATP, HS 748 2A and series 2B
2011-05-11	S 2007-19-19	Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747SR, and 747SP series
2011-05-12		Boeing	777-200, -200LR, -300, and -300ER series
2011-05-13		Saab AB, Saab Aerosystems	SAAB 2000
2011-05-14		Bombardier	DHC-8-400, -401, and -402
2011-06-04		Airbus	A330-243F

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Biweekly 2011-07			
2011-06-03		Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series
2011-06-05	S 2007-18-52	Boeing	737-600, -700, -700C, -800, -900, and -900ER series
2011-06-08		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)
2011-06-09	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		Boeing	MD-90-30
2011-07-01	S 2009-04-17	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, and CF6-50E2B
2011-07-02	S 2005-02-03	Pratt & Whitney	Engine: JT8D-209, -217, -217A, -217C, and -219 series turbofan
Biweekly 2011-08			
2011-07-04		Boeing	DC-9-14, DC-9-15, DC-9-15F, DC-9-21, DC-9-31, DC-9-32, DC-9-32 (VC-9C), DC-9-32F, DC-9-32F (C-9A), DC-9-32F (C9-B), DC-9-33F, DC-9-34, DC-9-34F, DC-9-41, and DC-9-51
2011-07-05		Sicma Aero Seat	Appliance: See AD
2011-07-06		Bombardier, Inc	CL-600-2B19 (Regional Jet Series 100 & 440)
2011-07-07		Fokker Services B.V.	F.28 Mark 1000, 2000, 3000, and 4000
2011-07-08		Airbus	A340-211, -212, -213, -311, -312 and -313
2011-07-10	S 2010-10-18	Bombardier, Inc.	BD-100-1A10 (Challenger 300)
2011-07-11		Dassault Aviation	Mystere-Falcon 50
2011-08-51	E	Boeing	737-300, -400, and -500 series
Biweekly 2011-09			
2011-07-12		Fokker Services B.V.	F.27 Mark 050
2011-08-02		Fokker Services B.V.	F.27 Mark 050
2011-08-03		Airbus	A340-541 and -642
2011-08-04		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)
2011-08-05		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	S 98-19-12	Rolls-Royce plc	Engine: RB211-Trent 768-60 and RB211-Trent 772-60 turbofan
2011-08-11	S 2005-13-19	BAE Systems (Operations) Limited	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		Airbus	A340-541, and -642
2011-09-02		Saab AB, Saab Aerosystems	340A (SAAB/SF340A) and SAAB 340B
2011-09-03		Lockheed Martin Corp	382, 382B, 382E, 382F, and 382G
2011-09-05		Boeing	777-200, -300, and -300ER series
2011-09-06	S 2002-02-07	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

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Biweekly 2011-10

2011-08-07		Rolls-Royce plc	Engine: RB211-Trent 875-17, RB211-Trent 877-17, RB211-Trent 884-17, RB211-Trent 884B-17, RB211-Trent 892-17, RB211-Trent 892B-17, and RB211-Trent 895-17 turbofan
2011-09-07		Rolls-Royce plc	Engine: RB211-524G2-T-19, -524G3-T-19, -524H-T-36, -524H2-T-19; RB211 Trent 553-61, 553A2-61, 556-61, 556A2-61, 556B-61, 556B2-61, 560-61, 560A2-61; RB211 Trent 768-60, 772-60, 772B-60; RB211 Trent 875-17, 877-17, 884-17, 884B-17, 892-17, 892B-17, and 895-17 turbofan
2011-09-10		Airbus	A300 B4-601, B4-603, B4-605R, C4-605R Variant F, and F4-605R airplanes, and A310-204 and -304
2011-09-11		Boeing	777-200 and -300 series
2011-09-12		Bombardier, Inc.	DHC-8-101, -102, -103, -106, -201, -202, -301, -311, -315, DHC-8-401, and -402
2011-09-13		Airbus	A340-211, -212, -213, -311, -312, and -313
2011-09-14		Boeing	747-200B, -300, -400, -400D, and -400F series
2011-09-15		Boeing	777-200, -200LR, -300, and -300ER series
2011-09-17	S 2010-01-07	Airbus	A340-211, -212, -213, -311, -312, -313, -541, and -642
2011-09-18		Dassault Aviation	FALCON 7X
2011-10-01		Dassault Aviation	FALCON 7X
2011-10-04		Rolls-Royce plc	Engine: RB211-Trent 875-17, -Trent 877-17, -Trent 884-17, -Trent 884B-17, -Trent 892-17, -Trent 892B-17, and -Trent 895-17 turbofan

Biweekly 2011-11

2011-08-51		Boeing	737-300, -400, and -500 series
2011-09-04		Lockheed Martin Corporation	382, 382B, 382E, 382F, and 382G
2011-10-02		Boeing	747-400, 747-400D, and 747-400F series
2011-10-03		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, -100 SU, ERJ 170-200 LR, -200 SU, -200 STD, ERJ 190-100 STD, ERJ 190-100 LR, ERJ 190-100 IGW, ERJ 190-200 STD, ERJ 190-200 LR, and ERJ 190-200 IGW
2011-10-05		Airbus	A310-203, -204, -222, -304, -322, and -324
2011-10-06		Airbus	A310-203, -204, -221, -222, -304, -322, -324, and -325
2011-10-07		Airbus	A310-203, -204, -221, -222, -304, -322, -324, and -325
2011-10-08	S 98-26-01 S 91-13-01	Airbus	A310-203, -204, -221, -222, -304, -322, -324, and -325
2011-10-10		Airbus	A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, and C4-605R Variant F
2011-10-14	S2010-24-08	Dassault Aviation	MYSTERE-FALCON 50
2011-10-15		Airbus	A318-112, A319-111, A319-112, A319-115, A319-132, A319-133, A320-214, A320-232, A320-233, A321-211, A321-213, and A321-231
2011-10-17	S 2007-04-11 S 2007-20-03 S 2007-25-02	Airbus	A300 B2-1A, B2-1C, B4-2C, B2K-3C, B4-103, B2-203, B4-203, A310-203, -204, -221, -222, -304, -322, -324, 325, A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, A300 C4-605R Variant F
2011-11-02		Bombardier, Inc.	DHC-8-400, -401, and -402

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Biweekly 2011-12

2010-24-13	COR	Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747SR, and 747SP series
2011-07-06	COR	Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440)
2011-11-05	S 2007-15-05	Boeing	DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F (KC-10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, MD-10-30F, MD-11, and MD-11F
2011-11-06	S 2002-03-10	BAE Systems (Operations) Limited	BAe 146-100A, -200A, -300A, Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2011-11-08		Rolls-Royce plc	Engine: RB211-535E4-37, -535E4-B-37, -535E4-B-75, and -535E4-C-37 turbofan
2011-12-01		Koito Industries, Ltd.	Appliance: Seats and seating systems
2011-12-51	E	Dassault Aviation	FALCON 7X

Biweekly 2011-13

2009-18-19 R1		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -343 series, A340-211, -212, -213, -311, -312, and -313 series
2011-12-05		Boeing	727, 727C, 727-100, 727-100C, 727-200, and 727-200F series
2011-12-06		Bombardier, Inc.	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705), and CL-600-2D24 (Regional Jet Series 900)
2011-12-09		Boeing	737-100, -200, -200C, -300, -400, and -500 series
2011-12-11	S 2001-14-19	Boeing	767-200, -300, -300F series, 767-400ER series
2011-12-12		Boeing	MD-90-30
2011-12-13		Boeing	737-600, -700, -700C, -800, -900, and -900ER series
2011-12-14		Fokker Services B.V.	F.28 Mark 0070 and 0100

Biweekly 2011-14

2011-08-09		Embraer	EMB-120, -120ER, -120FC, -120QC, and -120RT
2011-12-51		Dassault Aviation	FALCON 7X
2011-13-04		Rolls-Royce plc	Engine: RB211-Trent 553-61, 553A2-61, 556-61, 556A2-61, 556B-61, 556B2-61, 560-61, and 560A2-61 turbofan
2011-13-06		Bombardier, Inc.	DHC-8-400, -401, and -402
2011-13-07	S 2010-02-02	Dassault Aviation	FALCON 7X
2011-13-08		Bombardier, Inc.	DHC-8-400, -401, and -402
2011-13-09	S 2007-05-08	Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343
2011-13-10	S 2009-11-13	Learjet Inc	45
2011-13-11	S 2007-06-18	Airbus	A318-111, -112, -121, -122, A319-111, -112, -113, -114, -115, -131, -132, -133, A320-111, -211, -212, -214, -231, -232, -233; A321-111, -112, -131, -211, -212, -213, -231, and -232

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Biweekly 2011-15

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

Biweekly 2011-16

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

Biweekly 2011-17

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

LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability

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

Biweekly 2011-18

2011-17-04		Bombardier	DHC-8-400, -401, and -402
2011-17-07		M7 Aerospace LP	SA226-T, SA226-T(B), SA226-TC, SA226-AT
	S 2006-09-07	Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, A330-301, -302, -303, -321, -322, -323, -341, -342, and -343
2011-17-09		Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, A330-301, -302, -303, -321, -322, -323, -341, -342, and -343
2011-17-11		Boeing	DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88
2011-17-12		Bombardier	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705) and Model CL-600-2D24 (Regional Jet Series 900)
2011-17-16		Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-311, -312, -313, A340-541 and -642
2011-18-01		General Electric	Engine: CF6-45A, CF6-45A2, CF6-50A, CF6-50C, CF6-50CA, CF6-50C1, CF6-50C2, CF6-50C2B, CF6-50C2D, CF6-50E, CF6-50E1, and CF6-50E2 series turbofan
2011-18-02		General Electric	Engine: CF34-10E2A1; CF34-10E5; CF34-10E5A1; CF34-10E6; CF34-10E6A1; CF34-10E7; and CF34-10E7-B turbofan
2011-18-03		Boeing	737-600, -700, -700C, -800, -900 series, 737-600, -700, -700C, -800, and -900 series
2011-18-05		Saab Ab, Saab Aerosystems	SAAB 2000
2011-18-08		Bombardier	CL-600-2B19 (Regional Jet Series 100 & 440)
2011-18-51	E	Honeywell International, Inc.	Engine: TPE331

Biweekly 2011-19

2005-25-10R1	R 2005-25-10	Dowty Propellers	Propeller: R321/4-82-F/8, R324/4-82-F/9, R333/4-82-F/12, and R334/4-82-F/13
2011-18-04		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, -100 SU; ERJ 170-200 LR, -200 SU, -200; ERJ 190-100 STD, -100 LR, -100 ECJ, -100 IGW; ERJ 190-200 STD, -200 LR, and -200 IGW
2011-18-14		Embraer	ERJ 190-100 STD, -100 LR, -100 ECJ, -100 IGW; ERJ 190-200 STD, -200 LR, and -200 IGW
2011-18-18		Bombardier	DHC-8-400, -401, and -402

Biweekly 2011-20

2011-08-07	COR	Rolls-Royce plc	Engine: RB211-Trent 875-17, RB211-Trent 877-17, RB211-Trent 884-17, RB211-Trent 884B-17, RB211-Trent 892-17, RB211-Trent 892B-17, and RB211-Trent 895-17 turbofa
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

CORRECTION: [*Federal Register Volume 76, Number 185 (Friday, September 23, 2011)]; Page 59013; www.access.gpo.gov/su_docs/aces/aces140.html*]

2011-08-07 Rolls-Royce plc: Amendment 39-16657. Docket No. FAA-2010-0821; Directorate Identifier 2010-NE-30-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective June 7, 2011.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Rolls-Royce plc (RR) 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 engines.

Reason

(d) This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. We are issuing this AD to prevent low-pressure (LP) compressor blades from failing due to blade root cracks, which could lead to uncontained engine failure and damage to the airplane.

Actions and Compliance

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

(1) Using the corresponding compliance threshold in Table 1 of this AD, perform an initial ultrasonic inspection (UI) of the affected LP compressor blades identified by serial number (S/N) in Appendices 3A through 3F of RR Alert Service Bulletin (ASB) No. RB.211-72-AG244, Revision 1, dated January 26, 2010.

Table 1–Initial Inspection Thresholds

Appendix Number of RR ASB No. RB.211-72-AG244, Revision 1, that Identifies Affected LP Compressor Blades by S/N	**Initial Inspection Threshold (Engine Serial Numbers (ESN) Are For Reference Only)**
3A	120 flight cycles after the effective date of this AD.

3B	Blades shown in RR ASB No. RB.211-72-AG244, Revision 1 as fitted to ESN 51039 - 802 flight cycles after the effective date of this AD. ESNs 51146, 51177, 51145, and 51149 – 380 flight cycles after the effective date of this AD.
3C	Blades shown in RR ASB No. RB.211-72-AG244, Revision 1 as fitted to ESN 51001 and blade S/N RGG16694 - 1,680 flight cycles after the effective date of this AD. ESN 51145, 51149, 51150 and 51204 - 796 flight cycles after the effective date of this AD. ESN 51160 – 1,160 flight cycles after the effective date of this AD. ESN 51137 – 1,027 flight cycles after the effective date of this AD.
3D	Blades shown in RR ASB No. ASB RB.211-72-AG244, Revision 1 as fitted to ESN 51193 and blade S/N RGG20216 – 1,212 flight cycles after the effective date of this AD. ESN 51200 – 1,237 flight cycles after the effective date of this AD. ESN 51280 – 1,551 flight cycles after the effective date of this AD.
3E	Blades shown in RR ASB No. RB.211-72-AG244, Revision 1 as fitted to ESN 51004, "na" and blade S/Ns RGG12590, RGG14081, and RGG15419 - 3,433 flight cycles after the effective date of this AD. ESN 51156 – 1,627 flight cycles after the effective date of this AD.
3F	Blades shown in RR ASB No. RB.211-72-AG244, Revision 1 as fitted to ESN 51175, 51194, 51201, 51205, and 51228 - 2,042 flight cycles after the effective date of this AD. ESN 51264 – 4,309 flight cycles after the effective date of this AD. ESN 51443 – 2,636 flight cycles after the effective date of this AD. Blade S/N RGG15698 – 2,638 flight cycles after the effective date of this AD.

(2) Thereafter, perform repetitive UIs of the affected LP compressor blades within every 100 flight cycles.

(3) For blades that are:

(i) Removed from the engine, use paragraphs 3.A.(1) through 3.A.(2) of Accomplishment Instructions of RR ASB No. RB.211-72-AG244, Revision 1, dated January 26, 2010, and paragraphs 1 through 3.B. of Appendix 1 of that ASB, to perform the UIs.

(ii) Not removed from the engine, use paragraphs 3.B.(1) through 3.B.(3) of Accomplishment Instructions of RR ASB No. RB.211-72-AG244, Revision 1, dated January 26, 2010, and paragraphs 1 through 3.C. of Appendix 2 of that ASB, to perform the UIs.

(4) Remove blades from service before further flight that fail the inspection criteria in Appendix 1 of RR ASB No. RB.211-72-AG244, Revision 1, dated January 26, 2010.

(5) For blades that are removed from the engine and pass inspection, re-apply dry film lubricant, and install all blades in their original position.

(6) After the effective date of this AD, do not install any affected LP compressor blade unless it has passed the initial and repetitive UIs required by this AD.

Previous Credit

(f) An initial UI performed before the effective date of this AD using RR ASB No. RB.211-72-AG244, dated August 7, 2009, satisfies the initial UI requirements of this AD.

FAA AD Differences

(g) This AD differs from European Aviation Safety Agency (EASA) AD 2010-0097, dated May 26, 2010. The EASA AD uses calendar dates for initial inspection thresholds. This AD uses flight cycles.

Alternative Methods of Compliance

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

Related Information

(i) Refer to EASA AD 2010-0097, dated May 26, 2010, for related information.

(j) Contact Alan Strom, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: alan.strom@faa.gov; telephone (781) 238-7143; fax (781) 238-7199.

Definition

(k) For the purpose of this AD, an affected blade is a blade listed in Table 1 of this AD that has accumulated cycles within 100 cycles, of the initial inspection thresholds in Table 1 of this AD.

Material Incorporated by Reference

(l) You must use Rolls-Royce plc Alert Service Bulletin No. RB.211-72-AG244, Revision 1, dated January 26, 2010, Appendix 1, Appendix 2, and Appendices 3A through 3F of that ASB, to do the actions required by this AD.

(1) For service information identified in this AD, contact Rolls-Royce plc, P.O. Box 31, DERBY, DE24 8BJ, UK; telephone 44 1332 242424; fax 44 1332 249936; e-mail: royce.com">tech.help@rolls-royce.com.

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

Issued in Burlington, Massachusetts, on April 1, 2011.
Peter A. White,
Acting Manager, Engine and Propeller Directorate,
Aircraft Certification Service.

2011-17-17 Bombardier, Inc.: Amendment 39-16781. Docket No. FAA-2011-0151; Directorate Identifier 2009-NM-205-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective October 18, 2011.

Affected ADs

(b) This AD supersedes AD 2007-22-09, Amendment 39-15245 (72 FR 61288, October 30, 2007).

Applicability

(c) This AD applies to Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes, certificated in any category, having serial numbers (S/Ns) 4001, 4003, 4004, 4006, and 4008 through 4208 inclusive.

Subject

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

Reason

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

Two cases of main landing gear collapse had been reported. Main landing gear collapse may result in unsafe landing of the aircraft.
* * * * *

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 2007-22-09, Amendment 39-15245 (72 FR 61288, October 30, 2007), With Updated Service Information, Limited Affected Airplanes, and Revised Compliance Times

General Visual Inspection of Main Landing Gear (MLG) System, and Corrective Actions

(g) For airplanes having S/Ns 003, 004, 006, and 008 through 182 inclusive (now referred to as S/Ns 4003, 4004, 4006, and 4008 through 4182 inclusive), before further flight, do a general visual inspection to detect discrepancies of the left- and right-hand MLG system and do all applicable

corrective actions, in accordance with a method approved by the Manager, New York Aircraft Certification Office (ACO), FAA; or Transport Canada Civil Aviation (TCCA) (or its delegated agent).

Note 1: For the purposes of this AD, a general visual inspection is: ‘‘A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to ensure visual access to all surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or droplight and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

Note 2: Guidance on doing a general visual inspection to detect discrepancies of the left- and right-hand MLG system can be found in Tasks Z700-03E and Z700-04E of Part 1 (Maintenance Review Board Report) of the Bombardier DHC-8 Series 400 Maintenance Requirements Manual (PSM 1-84-7).

General Visual Inspection of the Jam Nut of the Retract Actuator of the MLG and Corrective Actions

(h) For all airplanes except for the airplane having serial number 4001: Before further flight, do a general visual inspection of the jam nut of the retract actuator of the left- and right-hand MLG to ensure the wire lock is in place and the nut is secured. If the wire lock is not in place or if the jam nut is not secured, before further flight, adjust the retracted length of the rod end, torque the jam nut, install a wire lock, and lubricate the piston, as applicable, in accordance with Bombardier Repair Drawing (RD) 8/4-32-059, Issue 4, dated September 14, 2007; or Issue 7, dated June 26, 2008. As of the effective date of this AD, use only Bombardier RD 8/4-32-059, Issue 7, dated June 26, 2008. Doing the revision required by paragraph (r) of this AD terminates the inspection required by this paragraph.

Note 3: Bombardier RD 8/4-32-059, Issue 4, dated September 14, 2007, refers to Goodrich Service Concession Request SCR 086-07, Revision C, dated September 14, 2007 (specifically item 14); and Bombardier RD 8/4-32-059, Issue 7, dated June 26, 2008, refers to Goodrich Service Concession Request SCR 086-07, Revision F, dated June 13, 2008 (specifically item 14); as an additional source of service information for adjusting the retracted length of the rod end, torquing the jam nut, installing a wire lock, and lubricating the piston if necessary, as required by paragraph (h) of this AD.

Detailed Inspection of the Retract Actuator of the MLG, With Extended Compliance Time for Paragraph (j) of This AD

(i) For airplanes having S/Ns 003, 004, 006, and 008 through 182 inclusive (now referred to as S/Ns 4003, 4004, 4006, and 4008 through 4182 inclusive) on which the retract actuator of the MLG, part number (P/N) 46550-7 or 46550-9, has accumulated 8,000 or more total landings or has been in-service 4 or more years since new, as of November 14, 2007 (the effective date of AD 2007-22-09, Amendment 39-15245 (72 FR 61288, October 30, 2007)): Before further flight, do a detailed inspection of affected parts for any signs of corrosion or wear, and applicable related investigative and corrective actions, in accordance with Bombardier RD 8/4-32-059, Issue 4, dated September 14, 2007; or Issue 7, dated June 26, 2008. As of the effective date of this AD, use only Bombardier RD 8/4-32-059, Issue 7, dated June 26, 2008.

Note 4: For the purposes of this AD, a detailed inspection is: ‘‘An intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirror, magnifying lenses, etc., may be necessary. Surface cleaning and elaborate procedures may be required."

(j) For airplanes having S/Ns 003, 004, 006, and 008 through 182 inclusive (now referred to as S/Ns 4003, 4004, 4006, and 4008 through 4182 inclusive) with a retract actuator of the MLG, P/N 46550-7 or 46550-9, other than those identified in paragraph (i) of this AD: Do a detailed inspection of affected parts for any signs of corrosion or wear, and applicable related investigative and corrective actions, in accordance with Bombardier RD 8/4-32-059, Issue 4, dated September 14, 2007; or Issue 7, dated June 26, 2008; at the later of the times specified in paragraphs (j)(1) and (j)(2) of this AD. As of the effective date of this AD, use only Bombardier RD 8/4-32-059, Issue 7, dated June 26, 2008.

(1) Before the accumulation of 4,500 total landings or 27 months since new, whichever occurs first.

(2) Within 500 flight hours after November 14, 2007, or within 3 months after the effective date of this AD, whichever occurs first.

Note 5: Bombardier RD 8/4-32-059, Issue 7, dated June 26, 2008, refers to Goodrich Service Concession Request SCR 086-07, Revision F, dated June 13, 2008, as an additional source of service information for accomplishing the applicable related investigative and corrective actions required by paragraphs (i) and (j) of this AD.

Actions Done in Accordance With Previous Issues of Service Information

(k) Actions done before November 14, 2007, in accordance with repair drawings specified in Table 1 of this AD, are acceptable for compliance with the corresponding actions specified in paragraphs (h) through (j) of this AD.

Table 1–Previous Repair Drawings

Document	Issue	Date
Bombardier Repair Drawing 8/4-32-059	1	September 12, 2007
Bombardier Repair Drawing 8/4-32-059	2	September 13, 2007
Bombardier Repair Drawing 8/4-32-059	3	September 13, 2007

New Requirements of This AD

General Visual Inspection of the Jam Nut of the Retract Actuator of the MLG, and Corrective Actions

(l) For all airplanes: At the later of the times specified in paragraphs (l)(1) and (l)(2) of this AD, do a general visual inspection of the left- and right-hand MLG retract actuator jam nut to ensure that the wire lock is in place and that the nut is secure, in accordance with a method approved by the Manager, New York ACO, FAA; or TCCA (or its delegated agent). If the wire lock is not in place or the jam nut is not secured, before further flight, re-torque the jam nut and safety lockwire, in accordance with Bombardier RD 8/4-32-059, Issue 7, dated June 26, 2008. Repeat the inspection thereafter at intervals not to exceed 250 flight cycles or 30 days, whichever occurs first. Doing the revision required by paragraph (r) of this AD terminates the inspections required by this paragraph.

(1) Within 250 flight cycles or 30 days after accomplishing the inspection required by paragraph (h) of this AD, whichever occurs first.

(2) Within 7 days after the effective date of this AD.

Note 6: Guidance for doing a general visual inspection to detect discrepancies of the left- and right-hand MLG system can be found in Tasks Z700-03E and Z700-04E of Part 1 (Maintenance Review Board Report) of the Bombardier DHC-8 Series 400 Maintenance Requirements Manual (PSM 1-84-7).

Detailed Inspection of the Retract Actuator of the MLG, and Related Investigative and Corrective Actions

(m) For airplanes equipped with a MLG retract actuator having P/N 46550-7 or 46550-9: At the later of the times specified in paragraphs (m)(1) and (m)(2) of this AD, do a detailed inspection of affected parts for any signs of corrosion or wear, and do applicable related investigative and corrective actions, in accordance with Bombardier RD 8/4-32-059, Issue 7, dated June 26, 2008. Do all applicable related investigative and corrective actions before further flight. Repeat the inspection thereafter at intervals not to exceed 2,000 flight cycles or 12 months, whichever occurs first.

(1) Within 2,000 flight cycles or within 12 months after accomplishing the inspection required by paragraph (i) or (j) of this AD, whichever occurs first.

(2) Within 30 days after the effective date of this AD.

(n) For airplanes having serial numbers 4001, 4003, 4004, 4006, and 4008 through 4182 inclusive equipped with a MLG retract actuator having P/N 46550-11: At the later of the times specified in paragraphs (n)(1) and (n)(2) of this AD, do a detailed inspection of affected parts for any signs of corrosion or wear, and applicable related investigative and corrective actions, in accordance with Bombardier RD 8/4-32-059, Issue 7, dated June 26, 2008. Do all applicable related investigative and corrective actions before further flight. Repeat the inspection thereafter at intervals not to exceed 2,000 flight cycles or 12 months, whichever occurs first.

(1) Before the accumulation of 4,500 total landings or 27 months since new, whichever occurs first.

(2) Within 500 flight hours or 3 months after the effective date of this AD, whichever occurs first.

(o) For airplanes having serial numbers 4001, 4003, 4004, 4006, and 4008 through 4182 inclusive equipped with a MLG retract actuator having P/N 46550-7, P/N 46550-9, or P/N 46550-11, and that have accumulated 7,500 total flight cycles or more as of the effective date of this AD, or that have more than 48 months since new: Within 500 flight cycles or 3 months after the effective date of this AD, whichever occurs first, replace the affected retract actuator with a new design retract actuator having P/N 46550-13, in accordance with Bombardier Service Bulletin 84-32-55, Revision A, dated March 10, 2008 (Bombardier Modsum 4-901603). Doing the replacement specified in this paragraph terminates the requirements of paragraphs (i), (j), (m), and (n) of this AD.

(p) For airplanes having serial numbers 4001, 4003, 4004, 4006, and 4008 through 4182 inclusive equipped with MLG retract actuators having P/N 46550-7, P/N 46550-9, or P/N 46550-11, that have accumulated less than 7,500 total flight cycles as of the effective date of this AD and that have 48 months or less since new: Prior to the accumulation of 8,000 total flight cycles, or within 51 months since new, whichever occurs first, replace the affected retract actuator with a new design retract actuator having P/N 46550-13, in accordance with Bombardier Service Bulletin 84-32-55, Revision A, dated March 10, 2008 (Bombardier Modsum 4-901603). Doing the replacement specified in this paragraph terminates the requirements of paragraphs (i), (j), (m), and (n) of this AD.

(q) Replacing the affected retract actuator with a new design retract actuator having P/N 46550-15, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-32-60, Revision A, dated September 29, 2008 (Bombardier Modsum 4-901610), is also acceptable for compliance with the requirements of paragraphs (o) and (p) of this AD.

Revision of the Maintenance Program

(r) For all airplanes: Within 30 days after the effective date of this AD, revise the maintenance program by incorporating Task 320100-211 (repetitive detailed inspections of the retraction actuator rod end jam nut, gland nut, and actuator attachment pins for condition, the security of installation, and corrosion) and Task 320100-212 (repetitive restorations of the retraction actuator for complete overhaul), as specified in Bombardier Temporary Revision (TR) MRB-35, dated November 18, 2008, to the Bombardier Q400 Dash 8 Maintenance Requirements Manual (PSM 1-84-7). Doing this revision terminates the requirements of paragraphs (h) and (l) of this AD. The initial compliance times for doing Task 320100-211 and Task 320100-212 are specified in paragraphs (r)(1) and (r)(2) of this AD. After doing this revision, no alternative inspections, restorations, or intervals may be used, unless the inspections, restorations, or intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (v)(1) of this AD.

(1) For Task 320100-211 in Bombardier TR MRB-35, dated November 18, 2008, to the Bombardier Q400 Dash 8 Maintenance Requirements Manual (PSM 1-84-7): The compliance time for the initial inspection is within 600 flight hours after the effective date of this AD.

(2) For Task 320100-212 in Bombardier TR MRB-35, dated November 18, 2008, to the Bombardier Q400 Dash 8 Maintenance Requirements Manual (PSM 1-84-7): The compliance time for the initial restoration is the later of the times of paragraphs (r)(2)(i) and (r)(2)(ii) of this AD.

(i) Prior to the accumulation of 25,000 total flight cycles, or within 12 years since the date of issuance of the original airworthiness certificate or the date of issuance of the original export certificate of airworthiness, whichever occurs first.

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

Note 7: The actions required by paragraph (r) of this AD may be done by inserting copies of Bombardier TR MRB-35, dated November 18, 2008, into the Bombardier Q400 Dash 8 Maintenance Requirements Manual (PSM 1-84-7). When this TR has been included in general revisions of the PSM, the general revisions may be inserted in the PSM, provided the relevant information in the general revision is identical to that in Bombardier TR MRB-35, dated November 18, 2008.

Credit for Actions Accomplished in Accordance With Previous Service Information

(s) Doing a general visual inspection of the jam nut of the retract actuator of the left- and right-hand MLG; and doing a detailed inspection of affected parts for any signs of corrosion or wear, and applicable related investigative and corrective actions; is also acceptable for compliance with the corresponding requirements of paragraphs (h), (i), (j), (l), (m), and (n) of this AD, if done before the effective date of this AD in accordance with Bombardier Repair Drawing 8/4-32-059, Issue 5, dated September 20, 2007; or Bombardier Repair Drawing 8/4-32-059, Issue 6, dated January 31, 2008.

(t) Replacing the affected retract actuator with a new design retract actuator having P/N 46550-13 is also acceptable for compliance with the requirements of paragraphs (o) and (p) of this AD, if done before the effective date of this AD in accordance with Bombardier Service Bulletin 84-32-55, dated January 14, 2008 (Modsum 4-901603).

No Reporting

(u) While Canadian Airworthiness Directive CF-2007-20R2, dated February 6, 2009, has a reporting action, this AD does not require reporting.

FAA AD Differences

Note 8: This AD differs from the MCAI and/or service information as follows: Although the MCAI or service information tells you to submit information to the manufacturer, paragraph (u) of this AD specifies that such submittal is not required.

Other FAA AD Provisions

(v) 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. AMOCs approved previously in accordance with AD 2007-22-09, Amendment 39-15245 (72 FR 61288, October 30, 2007), are approved as AMOCs for the corresponding provisions of paragraph (i) and (j) of this AD.

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

(3) Special Flight Permits: Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the airplane can be inspected (if the operator elects to do so), provided that the procedures and limitations in paragraphs (v)(3)(i) and (v)(3)(ii) of this AD are adhered to.

(i) Flight Crew Limitations and Procedures:

(A) Ferry flight with gear extended and pinned;

(B) Landing to be conducted at a minimum descent rate;

(C) Minimize braking on landing;

(D) Only essential crew on board; and

(E) Flight in known or forecast icing condition is prohibited.

(ii) Maintenance Procedures:

(A) Do the general visual inspection required by paragraph (h) of this AD;

(B) Do the general visual inspections of the stabilizer stay and the hinge points of the MLG for general condition and security, in accordance with Bombardier Q400 All Operator Message 236A, dated September 11, 2007;

(C) If no discrepancy is detected during the inspections required by paragraph (v)(3)(ii)(A) and (v)(3)(ii)(B) of this AD, before further flight, insert the ground lock pins and a wire lock of the MLG in place.

(D) Ensure the nose landing gear ground lock is engaged.

Related Information

(w) Refer to MCAI Canadian Airworthiness Directive CF-2007-20R2, dated February 6, 2009; Bombardier Service Bulletin 84-32-55, Revision A, dated March 10, 2008; Bombardier Service Bulletin 84-32-60, Revision A, dated September 29, 2008; Bombardier Repair Drawing 8/4-32-059, Issue 7, dated June 26, 2008; Bombardier TR MRB-35, dated November 18, 2008, to the Bombardier

Q400 Dash 8 Maintenance Requirements Manual (PSM 1-84-7); and Bombardier Q400 All Operator Message 236A, dated September 11, 2007; for related information.

Material Incorporated by Reference

(x) You must use the service information contained in Table 2 of this AD to do the actions required by this AD, as applicable, unless the AD specifies otherwise. If accomplished, you must use Bombardier Q400 All Operator Message 236A, dated September 11, 2007, to do the actions specified in paragraph (v)(3)(ii)(B) of this AD. The document number and date of the Bombardier Q400 all operator message are identified only on the first page of that document.

Table 2–Material Incorporated by Reference for Required Actions

Document	Revision/Issue	Date
Bombardier Service Bulletin 84-32-55	A	March 10, 2008
Bombardier Service Bulletin 84-32-60	A	September 29, 2008
Bombardier Repair Drawing 8/4-32-059	Issue 7	June 26, 2008
Bombardier Temporary Revision MRB-35 to the Bombardier Q400 Dash 8 Maintenance Requirements Manual (PSM 1-84-7)		November 18, 2008

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

(2) For 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; e-mail thd.qseries@aero.bombardier.com; Internet http://www.bombardier.com. (The document number of Bombardier Repair Drawing 8/4-32-059 is identified as 8/4-32-0059 in the technical publications database on 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.

Issued in Renton, Washington, on August 11, 2011.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2011-18-13 328 Support Services GmbH (Type Certificate Previously Held by AvCraft Aerospace GmbH; Fairchild Dornier GmbH; Dornier Luftfahrt GmbH): Amendment 39-16795. Docket No. FAA-2010-1163; Directorate Identifier 2009-NM-233-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective October 25, 2011.

Affected ADs

(b) This AD supersedes AD 2008-10-51, Amendment 39-15535 (73 FR 30752, May 29, 2008).

Applicability

(c) This AD applies to 328 Support Services GmbH (Type Certificate previously held by AvCraft Aerospace GmbH; Fairchild Dornier GmbH; Dornier Luftfahrt GmbH) Model 328-100 and -300 airplanes; all serial numbers; certificated in any category.

Subject

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

Reason

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

> During a routine inspection, cracks have been found on an aeroplane at the lower wing panel rear trailing edge inboard of flap lever arm 1 (rib 5). A subsequent inspection of the other aeroplanes in that operator's fleet revealed several more aeroplanes with cracks at the same location. This condition, if not corrected, could lead to structural failure of the affected wing panel, possibly resulting in the wing separating from the airplane with consequent loss of control.
>
> * * * * *

The new inspections are eddy current inspections. The modification includes cold expansion of the former lower wing panel CAMLOC holes and installation of new attachment material.

Compliance

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

Restatement of Requirements of AD 2008-10-51 (73 FR 30752, May 29, 2008), With Updated Service Information and Removal of Certain Repetitive Inspections

Repetitive Detailed Visual Inspections for Cracks

(g) Within 10 flight cycles, or 10 flight hours, or 7 days, whichever occurs first after June 3, 2008 (the effective date of AD 2008-10-51 (73 FR 30752, May 29, 2008)): Accomplish a detailed visual inspection of both the left-hand (LH) and right-hand (RH) lower wing panel inboard and outboard of flap lever arm 1 (rib 5) for cracks, in accordance with the Accomplishment Instructions of Dornier Alert Service Bulletin ASB-328J-57-015 or ASB-328-57-037, both Revision 1, both dated May 8, 2008, as applicable; or 328 Support Services Alert Service Bulletin ASB-328J-57-015 or ASB-328-57-037, both Revision 2, both dated May 20, 2008, as applicable. After the effective date of this AD, use only 328 Support Services Alert Service Bulletin ASB-328J-57-015 or ASB-328-57-037, both Revision 2, both dated May 20, 2008, as applicable. If no crack is detected, repeat the detailed visual inspection thereafter at intervals not to exceed 50 flight hours. If any crack is detected, before further flight, do an eddy current inspection, in accordance with Dornier Alert Service Bulletin ASB-328J-57-015 or ASB-328-57-037, both Revision 1, both dated May 8, 2008, as applicable; or 328 Support Services Alert Service Bulletin ASB-328J-57-015 or ASB-328-57-037, both Revision 2, both dated May 20, 2008, as applicable.

Eddy Current Inspections for Cracks

(h) Except as required by paragraph (g) of this AD, within 400 flight hours or 3 months after June 3, 2008, whichever occurs first: Accomplish an eddy current inspection for cracking of both the LH and RH lower wing panel in the vicinity of rib 3 and inboard and outboard of flap lever arm 1 (rib 5), in accordance with the Accomplishment Instructions of Dornier Alert Service Bulletin ASB-328J-57-015 or ASB-328-57-037, both Revision 1, both dated May 8, 2008, as applicable; or 328 Support Services Alert Service Bulletin ASB-328J-57-015 or ASB-328-57-037, both Revision 2, both dated May 20, 2008, as applicable. After the effective date of this AD, use only 328 Support Services Alert Service Bulletin ASB-328J-57-015 or ASB-328-57-037, both Revision 2, both dated May 20, 2008, as applicable. Accomplishment of the eddy current inspection terminates the detailed visual inspection required by paragraph (g) of this AD.

New Requirements of This AD

New Repetitive Intervals for Eddy Current Inspections

(i) Within 1,500 flight cycles after the most recent eddy current inspection done in accordance with the applicable service bulletin listed in table 1 of this AD, or within 60 days after the effective date of this AD, whichever occurs later, do an eddy current inspection for cracking of the lower wing panel (outside) around the flap lever arm 1 (rib 5), in accordance with the Accomplishment Instructions of 328 Support Services Alert Service Bulletin ASB-328-57-037 (for Model 328-100 airplanes) or ASB-328J-57-015 (for Model 328-300 airplanes), both Revision 2, both dated May 20, 2008. Repeat the inspection thereafter at intervals not to exceed 1,500 flight cycles, except as provided by paragraph (k) of this AD.

Table 1–Service Bulletins

Service Bulletin	Revision	Date
Dornier Alert Service Bulletin ASB-328-57-037	1	May 8, 2008
Dornier Alert Service Bulletin ASB-328J-57-015	1	May 8, 2008
328 Support Services Alert Service Bulletin ASB-328-57-037	2	May 20, 2008
328 Support Services Alert Service Bulletin ASB-328J-57-015	2	May 20, 2008

Inspection and Modification of Lower Wing Panel

(j) Within 24 months after the effective date of this AD, do an eddy current inspection for cracking of the lower wing panel (outside) around the flap lever arm 1 (rib 5). If no cracking is found, within 24 months after the effective date of this AD, modify the lower wing panel by doing a cold expansion of the CAMLOC holes and installing new attachment material from rib 9 LH to rib 9 RH. Do all actions required by this paragraph in accordance with the Accomplishment Instructions of 328 Support Services Service Bulletin SB-328-57-481 (for Model 328-100 airplanes) or SB-328J-57-230 (for Model 328-300 airplanes), both Revision 1, both dated October 15, 2009.

(k) After the modification required by paragraph (j) is done, do the eddy current inspection required by paragraph (i) of this AD at the applicable time specified in paragraph (k)(1) or (k)(2) of this AD. Repeat the inspections thereafter at the intervals specified in paragraph (i) of this AD.

(1) For Model 328-100 airplanes: Within 25,000 flight cycles after accomplishing the modification specified in paragraph (j) of this AD.

(2) For Model 328-300 airplanes: Within 20,000 flight cycles after accomplishing the modification specified in paragraph (j) of this AD.

Repair

(l) If any cracking is found during any inspection required by this AD, before further flight contact 328 Support Services GmbH for repair instructions and do the repair using a method approved by either the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or European Aviation Safety Agency (EASA) (or its delegated agent).

Inspections Accomplished According to Previous Issues of Service Bulletins

(m) Inspections accomplished before the effective date of this AD according to Dornier Alert Service Bulletin ASB-328-57-037 or Dornier Alert Service Bulletin ASB-328J-57-015, both Revision 1, both dated May 8, 2008, as applicable, are considered acceptable for compliance with the inspection requirements of paragraphs (i) and (j) of this AD.

Report

(n) At the applicable times specified in paragraphs (n)(1) and (n)(2) of this AD: Send 328 Support Services GmbH a report of findings (both positive and negative) found during each inspection required by paragraphs (g), (h), (i), and (j) of this AD. The report must include the inspection results, a description of any cracks found, the airplane serial number, and the number of landings and flight hours on the airplane. Send the report to 328 Support Services GmbH, Global Support Center, P.O. Box 1252, D-82231 Wessling, Federal Republic of Germany; Telephone +49 8153 88111 6666; fax +49 8153 88111 6565; e-mail: gsc.op@328support.de.

(1) For any inspection done on or after the effective date of this AD: Within 30 days after the inspection.

(2) For any inspection done before the effective date of this AD: Within 30 days after the effective date of this AD.

FAA AD Differences

Note 1: This AD differs from the MCAI and/or service information as follows:
EASA Airworthiness Directive 2009-0194R1, dated March 10, 2011, corrected March 22, 2011, gives credit for eddy current inspections conducted in accordance with the maintenance review board tasks. We are not giving credit for those inspections.

Other FAA AD Provisions

(o) The following provisions also apply to this AD:
(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, 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: Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1137; fax (425) 227-1149. Information may be e-mailed 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.
(4) Special Flight Permits: Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of paragraphs (g), (h), (i), (j), (k), and (l) of this AD can be done if the following conditions are met:
(i) The initial inspection required by paragraph (g) of this AD must be accomplished.
(ii) If a crack indication is less than or equal to 12.5 mm (0.49 inch), the Manager, International Branch, ANM-116, concurs with issuance of the special flight permits.

Related Information

(p) Refer to MCAI EASA Airworthiness Directive 2009-0194R1, dated March 10, 2011, corrected March 22, 2011, and the service bulletins listed in table 2 of this AD, for related information.

Table 2–Related Service Bulletins

Service Bulletin	Revision	Date
328 Support Services Alert Service Bulletin ASB-328-57-037	2	May 20, 2008
328 Support Services Alert Service Bulletin ASB-328J-57-015	2	May 20, 2008
328 Support Services Service Bulletin SB-328-57-481	1	October 15, 2009
328 Support Services GmbH Service Bulletin SB-328J-57-230	1	October 15, 2009

Material Incorporated by Reference

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

Table 3–All Material Incorporated by Reference

Service Bulletin	Revision	Date
328 Support Services Alert Service Bulletin ASB-328-57-037	2	May 20, 2008
328 Support Services Alert Service Bulletin ASB-328J-57-015	2	May 20, 2008
328 Support Services Service Bulletin SB-328-57-481	1	October 15, 2009
328 Support Services GmbH Service Bulletin SB-328J-57-230	1	October 15, 2009

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

(2) For service information identified in this AD, contact 328 Support Services GmbH, Global Support Center, P.O. Box 1252, D-82231 Wessling, Federal Republic of Germany; telephone +49 8153 88111 6666; fax +49 8153 88111 6565; e-mail gsc.op@328support.de; Internet http://www.328support.de.

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

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

Issued in Renton, Washington, on August 19, 2011.

Ali Bahrami,

Manager, Transport Airplane Directorate,

Aircraft Certification Service.

2011-18-15 Bombardier, Inc.: Amendment 39-16797. Docket No. FAA-2011-0910; Directorate Identifier 2011-NM-151-AD.

Effective Date

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

Affected ADs

(b) None.

Applicability

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

Subject

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

Reason

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

> There have been three in-service reports of cracked barrel nuts found at the front spar locations of the wing-to-fuselage attachment joints. Additionally, three operators have reported finding a loose washer in the barrel nut assembly. Failure of the barrel nuts could compromise the structural integrity of the wing-to-fuselage attachments.

The unsafe condition could result in separation of the wing from the airplane during flight.

Compliance

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

Initial and Repetitive Inspections

(g) At the applicable time specified in paragraph (g)(1) or (g)(2) of this AD: Do a torque check to determine if the bolt preload is correct, and if the preload is correct, before further flight, do a detailed inspection of each barrel nut and cradle for cracking, pitting or corrosion, in accordance with paragraph 3.B., part A, of the Accomplishment Instructions of Bombardier Alert Service Bulletin A84-57-25, dated July 20, 2011. Repeat the torque check and, as applicable, the inspection thereafter at intervals not to exceed 2,000 flight hours or 12 months, whichever occurs first.

(1) For airplanes that have accumulated 1,900 or more total flight hours as of the effective date of this AD, or for which it has been 12 months or more since the date of issuance of the original Canadian airworthiness certificate or the date of issuance of the original Canadian export certificate of airworthiness as of the effective date of this AD: Within 100 flight hours or 10 days after the effective date of this AD, whichever occurs first.

(2) For airplanes that have accumulated less than 1,900 total flight hours as of the effective date of this AD, and for which it has been less than 12 months since the date of issuance of the original Canadian airworthiness certificate or the date of issuance of the original Canadian export certificate of airworthiness as of the effective date of this AD: Prior to the accumulation of 2,000 total flight hours or within 12 months since the date of issuance of the original Canadian standard airworthiness certificate or the date of issuance of the original Canadian export certificate of airworthiness, whichever occurs first.

Corrective Actions

(h) If any bolt preload is found to be incorrect (i.e., the ring can be rotated during any torque check required by this AD), before further flight, replace all hardware at that location (except the saddle washer and retainer) in accordance with paragraph 3.B., part B, of the Accomplishment Instructions of Bombardier Alert Service Bulletin A84-57-25, dated July 20, 2011.

(i) If any crack, pitting, or corrosion of the barrel nut or cradle is found during any inspection required by this AD, before further flight, replace all hardware at that location (except the saddle washer and retainer) in accordance with paragraph 3.B., part B, of the Accomplishment Instructions of Bombardier Alert Service Bulletin A84-57-25, dated July 20, 2011.

Credit for Actions Accomplished in Accordance With Previous Service Information

(j) Accomplishment of torque checks, initial inspections, or replacements before the effective date of this AD, in accordance with Bombardier Alert Service Bulletin A84-57-19, dated February 1, 2008; Revision A, dated February 6, 2008; Revision B, dated March 6, 2008; or Revision C, dated August 20, 2008; is acceptable for compliance with the corresponding requirements of paragraphs (g) and (h) of this AD. However, the repetitive inspections required by paragraph (g) of this AD must be continued at the time specified.

FAA AD Differences

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

Special Flight Permits

(k) 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, but concurrence by the Manager, New York Aircraft Certification Office (ACO), FAA, is required prior to issuance of the special flight permit. Before using any approved special flight permits, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office (FSDO). Operators must request a repair drawing from Bombardier which provides recommendations for a one-time special flight permit. The repair drawing will be applicable to the operator's aircraft serial number only. Special flight permits may be permitted provided that the conditions specified in paragraphs (k)(1), (k)(2), (k)(3), (k)(4), and (k)(5) of this AD are met.

(1) Only one barrel nut out of four is cracked, one cradle is cracked, or one washer is loose; all other strut bolt locations must be free of damage.

(2) The airplane must operate with reduced airspeed not to exceed 180 KIAS [knots indicated air speed]. No passengers and no cargo are onboard.

(3) The airplane must not operate in known or forecast turbulence, other than light turbulence.

(4) The airplane descent rate on landing flare-out is not to exceed 5 feet per second.

(5) Heavy braking or hard turning of the airplane upon landing is to be avoided if possible.

Other FAA AD Provisions

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, ANE-170, New York 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 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

(m) Refer to MCAI Canadian Emergency Airworthiness Directive CF-2011-24, dated July 21, 2011; and Bombardier Alert Service Bulletin A84-57-25, dated July 20, 2011; for related information.

Material Incorporated by Reference

(n) You must use Bombardier Alert Service Bulletin A84-57-25, dated July 20, 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 Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; e-mail 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.

Issued in Renton, Washington, on August 19, 2011.

Ali Bahrami,

Manager, Transport Airplane Directorate,

Aircraft Certification Service.

2011-18-17 Bombardier, Inc.: Amendment 39-16799. Docket No. FAA-2011-0381; Directorate Identifier 2010-NM-203-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective October 18, 2011.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes, certificated in any category, serial numbers 4001, 4003 and subsequent.

Subject

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

Reason

(e) The mandatory continuing airworthiness information (MCAI) states:
Several reports have been received on failures of the main landing gear (MLG) stabilizer extension springs. A landing gear audit has confirmed that the MLG may not lock in the down-lock position with the absence of both MLG stabilizer extension springs. The loss of the locking mechanism could result in the collapse of the main landing gear.
* * * * *

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 320100-213 as specified in Bombardier Temporary Revision (TR) MRB-45, dated October 6, 2009, to Section 1-32, Systems/Powerplant Maintenance Program, of Part 1 of the Maintenance Review Board Report of the Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1-84-7. The initial compliance time for Task 320100-213 is within 600 flight hours after the effective date of this AD.

Note 1: The actions required by paragraph (g) of this AD may be done by inserting a copy of Bombardier TR MRB-45, dated October 6, 2009, into Section 1-32, Systems/Powerplant

Maintenance Program, of Part 1 of the Maintenance Review Board Report of the Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1-84-7. When this TR has been included in the general revisions of Part 1 of the Maintenance Review Board Report of the Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1-84-7, the general revisions may be inserted in Part 1 of the Maintenance Review Board Report of the Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1-84-7, provided the relevant information in the general revisions is identical to that in Bombardier TR MRB-45, dated October 6, 2009.

No Alternative Actions or Intervals

(h) After accomplishing the revision required by paragraph (g) of this AD, no alternative actions (e.g., inspections) or intervals may be used unless the actions or intervals 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 ACO, ANE-170, FAA, 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

(j) Refer to MCAI Transport Canada Civil Aviation (TCCA) Airworthiness Directive CF-2010-22, dated July 20, 2010; and Bombardier Temporary Revision MRB-45, dated October 6, 2009, to Section 1-32, Systems/Powerplant Maintenance Program, of Part 1 of the Maintenance Review Board Report 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-45, dated October 6, 2009, to Section 1-32, Systems/Powerplant Maintenance Program, of Part 1 of the Maintenance Review Board Report 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; e-mail 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.

Issued in Renton, Washington, on August 23, 2011.

Ali Bahrami,

Manager, Transport Airplane Directorate,

Aircraft Certification Service.

2011-18-20 Airbus: Amendment 39-16802. Docket No. FAA-2011-0474; Directorate Identifier 2010-NM-213-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective October 18, 2011.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Airbus Model A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes; and Model A340-211, -212, -213, -311, -312, and -313 airplanes, all manufacturer serial numbers; certificated in any category; except those airplanes embodied in production with the modifications identified in paragraphs (c)(1) and (c)(2) of this AD.

(1) Modification 57349 and

(2) Modification 58924 or 201642 or 57562.

Subject

(d) Air Transport Association (ATA) of America Code 92.

Reason

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

It was noticed in production that the distance between the wire harnesses 5376VB/2M and 5377VB/1M which are above the left-hand (LH) and right-hand (RH) door 4, and the air conditioning duct could be too small. This could result in collision between the flexible air conditioning hose and wire harnesses.

This condition, if not corrected, could lead to the short circuit of wires dedicated to oxygen, which, in case of emergency, could result in a large number of passenger oxygen masks not being supplied with oxygen, possibly causing personal injuries.

* * * * *

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: Modify the wire harness 5376VB/2M and 5377VB/1M attachments above the LH and RH door 4, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-92-3077, Revision 01, dated March 29, 2010; or Airbus Mandatory Service Bulletin A340-92-4078, Revision 01, dated April 9, 2010; as applicable.

(h) For airplanes that have been modified before the effective date of this AD in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-92-3077 or A340-92-4078, both dated June 17, 2008: Within 24 months after the effective date of this AD, perform the additional work identified in Airbus Mandatory Service Bulletin A330-92-3077, Revision 01, dated March 29, 2010, or A340-92-4078, Revision 01, dated April 9, 2010; as applicable (including modifying the support assembly of the air outlet, or exchanging certain attachment screws of the air outlet box assembly on each door, as applicable), in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-92-3077, Revision 01, dated March 29, 2010; or Airbus Mandatory Service Bulletin A340-92-4078, Revision 01, dated April 9, 2010; as applicable.

FAA AD Differences

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

Other FAA AD Provisions

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: 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 e-mailed 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

(j) Refer to MCAI European Aviation Safety Agency Airworthiness Directive 2010-0103R1, dated April 28, 2011; Airbus Mandatory Service Bulletin A330-92-3077, Revision 01, dated March 29, 2010; and Airbus Mandatory Service Bulletin A340-92-4078, Revision 01, dated April 9, 2010; for related information.

Material Incorporated by Reference

(k) You must use Airbus Mandatory Service Bulletin A330-92-3077, Revision 01, dated March 29, 2010; or Airbus Mandatory Service Bulletin A340-92-4078, Revision 01, dated April 9, 2010; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

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

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

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

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

Issued in Renton, Washington, on August 25, 2011.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2011-18-22 Airbus: Amendment 39-16804. Docket No. FAA-2011-0387; Directorate Identifier 2010-NM-222-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective October 18, 2011.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Airbus Model A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes, and Model A340-211, -212, -213, -311, -312, and -313 airplanes; certificated in any category; all manufacturer serial numbers, if equipped with rudders having part numbers and serial numbers as identified in table 1, table 2, or table 3 of this AD.

Table 1–Rudder Part Number (P/N) and Affected Rudder Serial Number (S/N)

Rudder P/N	Affected Rudder S/N
F554-70000-000-00	TS-2045
F554-70000-000-00	TS-2046
F554-71000-000-00-0000	TS-3013
F554-71000-000-00-0000	TS-3014
F554-71000-000-00-0000	TS-3020
F554-71000-000-00-0000	TS-3022
F554-71000-000-00-0000	TS-3023
F554-71000-000-00-0000	TS-3027
F554-71000-000-00-0000	TS-3031
F554-71000-000-00-0000	TS -3034
F554-71000-000-00-0000	TS-3036
F554-71000-000-00-0000	TS-3038
F554-71000-000-00-0000	TS-3041
F554-71000-000-00-0000	TS-3046
F554-71000-000-00-0000	TS-3054
F554-70005-000-00-0000	TS-3102
F554-71002-000-00-0002	TS-4018
F554-71002-000-00-0002	TS-4022
F554-71002-000-00-0002	TS-4031

Table 2–Rudder P/N and Affected Rudder S/N

Rudder P/N	Affected Rudder S/N
A554-71500-024-00	TS-1014
A554-71500-030-00	TS-1042
F554-70000-000-00	TS-2004
F554-70000-000-00	TS-2005
F554-70000-000-00	TS-2008
F554-70000-000-00	TS-2009
F554-70000-000-00	TS-2010
F554-70000-000-00	TS-2022
F554-70000-000-00	TS-2023
F554-70000-000-00	TS-2028
F554-70000-000-00	TS-2029
F554-70000-000-00	TS-2030
F554-70000-000-00	TS-2032
F554-70000-000-00	TS-2033
F554-70000-000-00	TS-2034
F554-70000-000-00	TS-2041
F554-70000-000-00	TS-2044
F554-70000-000-00	TS-2048
F554-70000-000-00	TS-2049
F554-70000-000-00	TS-2050
F554-70000-000-00	TS-2057
F554-70000-000-00	TS-2067
F554-70000-002-00	TS-2068
F554-70000-002-00	TS-2071
F554-71000-000-00-0000	TS-3001
F554-71000-000-00-0000	TS-3010
F554-71000-000-00-0000	TS-3012
F554-71000-000-00-0000	TS-3017
F554-71000-000-00-0000	TS-3018
F554-71000-000-00-0000	TS-3019
F554-71000-000-00-0000	TS-3021
F554-71000-000-00-0000	TS-3024
F554-71000-000-00-0000	TS-3025
F554-71000-000-00-0000	TS-3026
F554-71000-000-00-0000	TS-3028
F554-71000-000-00-0000	TS-3029
F554-71000-000-00-0000	TS-3030
F554-71000-000-00-0000	TS-3032
F554-71000-000-00-0000	TS-3035
F554-71000-000-00-0000	TS-3037
F554-71000-000-00-0000	TS-3039
F554-71000-000-00-0000	TS-3040
F554-71000-000-00-0000	TS-3042
F554-71000-000-00-0000	TS-3047
F554-71000-000-00-0000	TS-3049
F554-71000-000-00-0000	TS-3055

F554-71000-000-00-0000	TS-3058
F554-71000-000-00-0000	TS-3062
F554-71000-000-00-0000	TS-3063
F554-71000-000-00-0000	TS-3065
F554-71000-000-00-0000	TS-3067
F554-71000-000-00-0000	TS-3069
F554-71000-000-00-0000	TS-3070
F554-71000-000-00-0000	TS-3077
F554-71000-000-00-0000	TS-3078
F554-71000-000-00-0000	TS-3080
F554-71000-000-00-0000	TS-3081
F554-71000-000-00-0000	TS-3086
F554-71000-000-00-0000	TS-3089
F554-71000-000-00-0000	TS-3092
F554-71000-000-00-0000	TS-3093
F554-71000-000-00-0000	TS-3095
F554-71000-000-00-0000	TS-3096
F554-70005-000-00-0000	TS-3098
F554-70005-000-00-0000	TS-3099
F554-70005-000-00-0000	TS-3101
F554-70005-000-00-0000	TS-3103
F554-70005-000-00-0000	TS-3104
F554-70005-000-00-0000	TS-3105
F554-70005-000-00-0000	TS-3108
F554-70005-000-00-0000	TS-3109
F554-70005-000-00-0000	TS-3110
F554-70005-000-00-0000	TS-3111
F554-70005-000-00-0000	TS-3112
F554-70005-000-00-0000	TS-3114
F554-70005-000-00-0000	TS-3116
F554-70005-000-00-0000	TS-3117
F554-70005-000-00-0000	TS-3120
F554-70005-000-00-0000	TS-3131
F554-70005-000-00-0000	TS-3132
F554-70005-000-00-0000	TS-3212
F554-70005-000-00-0002	TS-3323
F554-70005-000-00-0002	TS-3330
F554-71002-000-00-0002	TS-4009
F554-71002-000-00-0002	TS-4010
F554-71002-000-00-0002	TS-4012
F554-71002-000-00-0002	TS-4013
F554-71002-000-00-0002	TS-4014
F554-71002-000-00-0002	TS-4015
F554-71002-000-00-0002	TS-4016
F554-71002-000-00-0002	TS-4017
F554-71002-000-00-0002	TS-4020
F554-71002-000-00-0002	TS-4023
F554-71002-000-00-0002	TS-4025
F554-71002-000-00-0002	TS-4026
F554-71002-000-00-0002	TS-4027

F554-71002-000-00-0002	TS-4029
F554-71002-000-00-0002	TS-4030
F554-71002-000-00-0002	TS-4038
F554-71002-000-00-0002	TS-4047
F554-71002-000-00-0002	TS-4049
F554-71002-000-00-0002	TS-4066
F554-71002-000-00-0003	TS-4083

Table 3–Rudder P/N and Affected Rudder S/N

Rudder P/N	Affected Rudder S/N
F554-71000-000-00-0000	TS-3060
F554-71000-000-00-0000	TS-3068
F554-70005-000-00-0000	TS-3128
F554-71002-000-00-0002	TS-4011

Subject

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

Reason

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

Surface defects were visually detected on the rudder of * * * [an] in-service aeroplane during scheduled maintenance.

Investigation has determined that the defects reported on both rudders corresponded to areas that had been reworked in production. The investigation confirmed that the surface defects were a result of de-bonding between the skin and honeycomb core.

* * * * *

An extended de-bonding, if not detected and corrected, may degrade the structural integrity of the rudder. The loss of the rudder leads to degradation of the handling qualities and reduces the controllability of the aeroplane.

* * * * *

Compliance

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

Inspections

(g) For rudders identified in table 1 and table 2 of this AD: Within the compliance time in paragraph (g)(1) or (g)(2) of this AD as applicable, do a vacuum loss inspection on the rudder non-ventilated area (Area 1) for damage including de-bonding between the skin and honeycomb core of

the rudder, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-55-3042 or A340-55-4038, both dated April 22, 2010, as applicable.

(1) For rudders identified in table 1 of this AD: Within 1,800 flight hours after the effective date of this AD.

(2) For rudders identified in table 2 of this AD: Within 21 months after the effective date of this AD.

(h) For rudders identified in table 1 and table 2 of this AD: Within 21 months after the effective date of this AD, do an elasticity laminate checker inspection on the trailing edge area (Area 2) for damage including de-bonding between the skin and honeycomb core of the rudder, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-55-3042 or A340-55-4038, both dated April 22, 2010, as applicable. Thereafter, repeat the inspection two more times at intervals not to exceed 4,500 flight cycles but not less than 4,000 flight cycles from the most recent inspection.

(i) For rudders identified in table 3 of this AD: Within 4,500 flight cycles but not less than 4,000 flight cycles from the date of the sampling inspection identified in table 4 of this AD, or within 30 days after the effective date of this AD, whichever occurs later, do an elasticity laminate checker inspection on the trailing edge area for damage including de-bonding between the skin and honeycomb core of the rudder, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-55-3042 or A340-55-4038, both dated April 22, 2010, as applicable. Repeat the inspection once within 4,500 flight cycles after doing the inspection but not less than 4,000 flight cycles from the last inspection.

Table 4–Rudder P/N and Affected Rudder S/N and Sampling Inspection Date

Rudder P/N	Affected Rudder S/N	Date of Sampling Inspection
F554-71000-000-00-0000	TS-3060	March 12, 2009
F554-71000-000-00-0000	TS-3068	April 27, 2009
F554-70005-000-00-0000	TS-3128	July 13, 2009
F554-71002-000-00-0002	TS-4011	February 12, 2009

Corrective Actions

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

Restoration

(k) If no damage is found during any inspection required by paragraph (g) of this AD, before further flight, restore the vacuum loss holes by doing a temporary restoration with self-adhesive disks or tapes, a temporary restoration with resin, or a permanent restoration with resin, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-55-3042 or A340-55-4038, both dated April 22, 2010, as applicable. Do the applicable actions specified in paragraph (k)(1) or (k)(2) of this AD.

(1) For airplanes on which a temporary restoration with self-adhesive disks or tapes is done, within 900 flight hours after doing the restoration, do a detailed inspection for loose or missing self-adhesive disks or tapes and repeat the inspection thereafter at intervals not to exceed 900 flight hours until the permanent restoration is done, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-55-3042 or A340-55-4038, both dated April 22, 2010, as

applicable. If any loose or missing self-adhesive disks or tapes are found during any inspection required by this AD, before further flight, close the holes, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-55-3042 or A340-55-4038, both dated April 22, 2010, as applicable. Do the permanent restoration within 21 months after doing the temporary restoration, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-55-3042 or A340-55-4038, both dated April 22, 2010, as applicable.

(2) For airplanes on which a temporary restoration with resin is done: Within 21 months after doing the temporary restoration, do the permanent restoration, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-55-3042 or A340-55-4038, both dated April 22, 2010, as applicable.

Reporting Requirements

(l) Submit a report of the findings (positive and negative) of the first inspection required by paragraphs (g), (h), and (i) of this AD to Airbus, at the applicable time specified in paragraph (l)(1) or (l)(2) of this AD. The report must include the inspection results, a description of any discrepancies found, the airplane serial number, and the number of landings and flight hours on the airplane.

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

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

Parts Installation

(m) As of the effective date of this AD, no person may install any affected rudder listed in table 1, table, 2, or table 3 of this AD, on any airplane, unless the rudder is inspected as specified in paragraphs (g), (h), and (i) of this AD, as applicable, and all applicable corrective actions specified in paragraph (j) of this AD and applicable restoration specified in paragraph (k) of this AD are done.

FAA AD Differences

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

Other FAA AD Provisions

(n) 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 e-mailed 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

(o) Refer to MCAI EASA Airworthiness Directive 2010-0127, dated June 23, 2010; Airbus Mandatory Service Bulletin A330-55-3042, dated April 22, 2010; and Airbus Mandatory Service Bulletin A340-55-4038, dated April 22, 2010; for related information.

Material Incorporated by Reference

(p) You must use Airbus Mandatory Service Bulletin A330-55-3042, dated April 22, 2010; or Airbus Mandatory Service Bulletin A340-55-4038, dated April 22, 2010; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

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

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

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

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

Issued in Renton, Washington, on August 25, 2011.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2011-18-23 The Boeing Company: Amendment 39-16805; Docket No. FAA-2011-0221; Directorate Identifier 2010-NM-120-AD.

Effective Date

(a) This AD is effective October 25, 2011.

Affected ADs

(b) This AD affects certain requirements of AD 2008-25-05, Amendment 39-15763 (73 FR 78936, December 24, 2008).

Applicability

(c) This AD applies to all The Boeing Company Model DC-8-11, DC-8-12, DC-8-21, DC-8-31, DC-8-32, DC-8-33, DC-8-41, DC-8-42, DC-8-43, DC-8-51, DC-8-52, DC-8-53, DC-8-55, DC-8F-54, DC-8F-55, DC-8-61, DC-8-62, DC-8-63, DC-8-61F, DC-8-62F, DC-8-63F, DC-8-71, DC-8-72, DC-8-73, DC-8-71F, DC-8-72F, and DC-8-73F airplanes, certificated in any category.

Subject

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

Unsafe Condition

(e) This AD was prompted by reports that cracks in the center spar lower cap and, in some cases, the web of the spar, have been found at stations Xrs = 168.00, Xrs = 251.00, and Xrs = 358.00. The Federal Aviation Administration is issuing this AD to detect and correct cracks in the area around certain fasteners of the access opening doubler on the left and right wing center spar lower cap, which could compromise the structural integrity of the wing structure.

Compliance

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

Inspection

(g) Before the accumulation of 20,000 total flight cycles, or within 3,000 flight cycles after the effective date of this AD, whichever occurs later, do a high frequency eddy current (HFEC) or low frequency eddy current (LFEC) inspection for cracks on the area around certain fasteners of the access opening doubler on the left and right wing center spar lower cap, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin DC8-57A103, dated May 5, 2010. If no crack is found, repeat the inspection thereafter at the applicable interval specified in paragraph 1.E., "Compliance" of Boeing Alert Service Bulletin DC8-57A103, dated May 5, 2010.

Repair

(h) If any crack is found during any inspection required by paragraph (g) of this AD, do the actions specified in paragraphs (h)(1), (h)(2), and (h)(3) of this AD.

(1) Before further flight, repair the crack in accordance with Boeing Alert Service Bulletin DC8-57A103, dated May 5, 2010.

(2) Within 6,000 flight cycles after doing the most recent HFEC inspection, or within 1,750 flight cycles after doing the most recent LFEC inspection; as applicable; do the inspection specified in paragraph (g) of this AD of the non-repaired area, and repeat the inspection of the non-repaired area thereafter at the applicable time in paragraph 1.E. "Compliance," of Boeing Alert Service Bulletin DC8-57A103, dated May 5, 2010.

(3) Within the applicable times specified in paragraph 1.E. "Compliance," of Boeing Alert Service Bulletin DC8-57A103, dated May 5, 2010, do the inspections of the repaired area, using the inspection defined in Method 101 of Section 57-10-06, "Lower Center Space Cap Flanges (FWD & AFT) from STA Xrs = 100 to 290," or Methods 101 and 104 of Section 57-10-16, "Lower Center Space Cap Flanges (FWD & AFT) from STA Xrs = 100 to 290," of the McDonnell Douglas DC-8 Supplemental Inspection Document (SID), Report L26-011, Volume II, Revision 8, dated January 2005, as applicable. Repeat the inspection thereafter at the applicable intervals specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin DC8-57A103, dated May 5, 2010. If any crack is found, before further flight, repair the crack using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(i) The inspections required by paragraph (h)(3) of this AD constitute compliance with paragraph (j) of AD 2008-25-05 for the repaired area. All requirements of AD 2008-25-05 that are not specifically referenced in this paragraph remain fully applicable and require compliance.

Alternative Methods of Compliance (AMOCs)

(j)(1) The Manager, Los Angeles Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. 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) 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, 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.

(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.

Related Information

(k) For more information about this AD, contact Dara Albouyeh, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles ACO, 3960 Paramount Boulevard, Lakewood, California 90712-4137; phone: (562) 627-5222; fax: (562) 627-5210; e-mail: dara.albouyeh@faa.gov.

Material Incorporated by Reference

(l) You must use Boeing Alert Service Bulletin DC8-57A103, dated May 5, 2010; and McDonnell Douglas DC-8 Supplemental Inspection Document (SID), Report L26-011, Volume II, Revision 8, dated January 2005; as applicable; to do the actions required by this AD, unless the AD specifies otherwise. The current revision of the McDonnell Douglas DC-8 SID, Report L26-011, Volume II, Revision 8, dated January 2005, is specified on only the title page and List of Effective Pages of the document; the cover page of this document does not specify a revision of date.

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

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

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

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

Issued in Renton, Washington, on August 25, 2011.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2011-19-01 Airbus: Amendment 39-16806. Docket No. FAA-2011-0917; Directorate Identifier 2011-NM-157-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective September 28, 2011.

Affected ADs

(b) This AD supersedes AD 2004-15-14, Amendment 39-13748 (69 FR 45243, July 29, 2004).

Applicability

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

Subject

(d) Air Transport Association (ATA) of America Code 31: Instruments.

Reason

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

In service experience has shown a number of events of pin to socket arcing at the Integrated Drive Generator (IDG) feeder cable pylon/nacelle interface connector. The fretting corrosion phenomenon was identified to be the root cause of the pin to socket arcing.

Investigation has identified a non-optimised electrical harness installation as a contributing factor to this phenomenon that could lead to electrical arcs with possible electrical flickering.

* * * * *

[S]ome operators reported cases of Display Unit (DU) flickering, despite the fact that the engines installed did not belong to the affected batch, and that these aeroplanes had been modified to incorporate one of * * * two terminating actions, * * *.

[S]ome intermittent electrical power supply interruptions may not be detectable by the electrical power monitoring system, thereby preventing an automatic disconnection of the failed generator.

* * * * *

The unsafe condition is transient loss of certain systems, which could result in the reduced ability of the flightcrew to cope with adverse flight conditions.

Compliance

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

Restatement of Requirements of AD 2004-15-14, Amendment 39-13748 (69 FR 45243, July 29, 2004), With Revised Method of Compliance:

Revision of Airplane Flight Manual (AFM)

(g) For Airbus Model A319-131, -132, and -133; A320-231, -232, and -233; and A321-131 and -231 series airplanes, except those airplanes on which Airbus Modification 32943 has been incorporated in production: Within 10 days after August 13, 2004 (effective date of AD 2004-15-14, Amendment 39-13748 (69 FR 45243, July 29, 2004)), revise the Limitations section of the Airbus A318/319/320/321 AFM to include the information in Temporary Revision (TR) 4.02.00/20, dated May 3, 2004. This may be done by inserting a copy of this TR into the AFM. When this TR has been included in general revisions of the AFM, those general revisions may be inserted into this AFM, provided the relevant information in the general revisions is identical to that in this TR. Accomplishing the actions required by paragraph (j) of this AD terminates the requirements of this paragraph.

Post-IDG Shutdown Inspection

(h) For Airbus Model A319-131, -132, and -133; A320-231, -232, and -233; and A321-131 and -231 series airplanes, except those airplanes on which Airbus Modification 32943 has been incorporated in production: If an IDG is shut down by the flightcrew in accordance with the TR procedures specified in paragraph (g) of this AD, or if an IDG is shut down automatically before the effective date of this AD, do the actions specified in paragraph (h)(1) or (h)(2) of this AD. If an IDG is shut down automatically on or after the effective date of this AD, do the actions specified in paragraph (k) of this AD.

(1) Before further flight, inspect the firewall connector of the affected IDG to detect signs of arcing, in accordance with a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA. If any sign of arcing is detected: Before further flight, either repair the connector or replace the connector with a new connector, in accordance with a method approved by the Manager, International Branch, ANM-116.

(2) Operate the airplane with the affected IDG inoperative in accordance with the provisions and compliance periods specified in the FAA-approved Master Minimum Equipment List or in accordance with a method approved by the Manager, International Branch, ANM-116. Before further use of the affected IDG, do the actions specified in paragraph (h)(1) of this AD. As of the effective date of this AD, operate the airplane in accordance with a method approved by the Manager, International Branch, ANM-116.

Note 1: Guidance on provisions and compliance periods for operating the airplane with an inoperative, affected IDG can be found in the FAA-approved Master Minimum Equipment List.

Terminating Action for Paragraphs (g) and (h) of This AD if Done Before the Effective Date of This AD

(i) For Airbus Model A319-131, -132, and -133; A320-231, -232, and -233; and A321-131 and -231 series airplanes, except those airplanes on which Airbus Modification 32943 has been incorporated in production: Replacement of the IDG harnesses and connectors on both engines in accordance with Airbus Service Bulletin A320-71-1030, dated February 27, 2003, before the effective date of this AD terminates the requirements of paragraphs (g) and (h) of this AD.

Note 2: Airbus Service Bulletin A320-71-1030, dated February 27, 2003, refers to International Aero Engines Information Bulletin V2500-NAC-70-0736, dated January 28, 2003, as an additional source of guidance for the harness/connector replacement specified in paragraph (i) of this AD.

New Requirements of This AD:

Revision of AFM

(j) For all airplanes: Within 10 days after the effective date of this AD, revise the applicable section of the Airbus A318/319/320/321 AFM to include the information in Figure 1 of this AD or the information in Airbus TR TR112, Issue 1.1, dated November 29, 2010, to the Airbus A318/319/320/321 AFM. This may be done by inserting a copy of this AD or Airbus TR TR112, Issue 1.1, dated November 29, 2010, in the AFM. Accomplishing the actions required by this paragraph terminates the requirements of paragraph (g) of this AD.

Note 3: When the information in Figure 1 of this AD or Airbus TR TR112, Issue 1.1, dated November 29, 2010, to the Airbus A318/319/320/321 AFM, has been included in the applicable section of the general revisions of the AFM, the general revisions may be inserted into the AFM, and the copy of this AD may be removed from the AFM, provided the relevant information in the general revisions is identical to that in Figure 1 of this AD or Airbus TR TR112, Issue 1.1, dated November 29, 2010.

DISPLAY UNIT FAILURE

■ **Affected DU blank or display distorted:**

Turn off affected DU as required.

- **If ECAM DUs affected:**
  Use ECAM/ND SEL
- **If EFIS DUs affected:**
  Use PFD/ND XFR.

■ **Diagonal line or "INVALID DATA" on affected DU:**

Attempt to recover affected DU by using associated DMC switching.

- **If unsuccessful:**
  Turn off then on affected DU.

■ **Inversion of EWD and SD displays:**

Turn off then on ECAM upper display.

■ **Affected DU(s) or MCDU flashes intermittently:**

■ **If Captain PFD or ND, both ECAM DUs or upper ECAM DU, or MCDU 1 is (are) affected:**

Turn off GEN 1.

■ **If DU(s) stop(s) flashing:**

Keep GEN 1 off for the rest of the flight.

Use the sideslip indication to verify if the rudder trim needs to be reset. If necessary, reset the rudder trim.

Note: Intermittent Electrical Power Supply Interruptions may cause offset in the rudder trim.

Select AP and/or autothrust as required.

APU may be started (*Refer to NORM-49 Auxiliary Power Unit (APU)*) and APU generator may be used (if available).

■ **If DU(s) do(es) not stop flashing:**

Restore GEN 1.

■ **If First Officer PFD or ND, lower ECAM DU, or MCDU 2 is (are) affected:**

Turn off GEN 2.

■ **If DU(s) stop(s) flashing:**

Keep GEN 2 off for the rest of the flight.

Use the sideslip indication to verify if the rudder trim needs to be reset. If necessary, reset the rudder trim.

Note: Intermittent Electrical Power Supply Interruptions may cause offset in the rudder trim.

Select AP and/or autothrust as required.

APU may be started (*Refer to NORM-49 Auxiliary Power Unit (APU)*) and APU generator may be used (if available).

■ **If DU(s) do(es) not stop flashing:**

Restore GEN 2.

Figure 1

Post-IDG Shutdown Inspection

(k) For all airplanes: If an IDG is shut down by the flightcrew in accordance with the TR procedures specified in paragraph (j) of this AD, or if an IDG is shut down automatically on or after the effective date of this AD, do the actions specified in paragraph (k)(1) or (k)(2) of this AD.

(1) Before further flight, inspect the firewall connector of the affected IDG to detect signs of arcing, in accordance with a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA. If any sign of arcing is detected: Before further flight, either repair the connector or replace the connector with a new connector, in accordance with a method approved by the Manager, International Branch, ANM-116.

(2) Operate the airplane with the affected IDG inoperative in accordance with a method approved by the Manager, International Branch, ANM-116. Before further use of the affected IDG, do the actions specified in paragraph (k)(1) of this AD.

Note 4: Guidance on provisions and compliance periods for operating the airplane with an inoperative, affected IDG can be found in the FAA-approved Master Minimum Equipment List.

FAA AD Differences

Note 5: This AD differs from the MCAI and/or service information as follows: The MCAI does not require inspecting an IDG that has been shut down in accordance with Airbus TR TR112, Issue 1.1, dated November 29, 2010, or that has been shut down automatically. We have determined that investigative and corrective actions (including an inspection for signs of arcing, and repair or replacement of any discrepant IDG harness/connector with a new harness/connector) are necessary due to the severity of the problem to prevent the unsafe condition from recurring. The inspections and corrective actions must be done in accordance with a method approved by Manager, International Branch, ANM-116.

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, 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: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1405; fax (425) 227-1149 Information may be e-mailed 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. AMOCs approved previously for AD 2004-15-14, Amendment 39-13748 (69 FR 45243, July 29, 2004), are acceptable for corresponding provisions of this AD.

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

Related Information

(m) Refer to MCAI European Aviation Safety Agency (EASA) Airworthiness Directive 2011-0142, dated July 25, 2011; Airbus TRs 4.02.00/20, dated May 3, 2004, and TR112, Issue 1.1, dated

November 29, 2010, to the Airbus A318/319/320/321 AFM; and Airbus Service Bulletin A320-71-1030, dated February 27, 2003; for related information.

Material Incorporated by Reference

(n) You must use Airbus Service Bulletin A320-71-1030, dated February 27, 2003; Airbus Temporary Revision 4.02.00/20, dated May 3, 2004, to the Airbus A318/319/320/321 Airplane Flight Manual (AFM); and Airbus Temporary Revision TR112, Issue 1.1, dated November 29, 2010, to the Airbus A318/319/320/321 AFM; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of Airbus Temporary Revision TR112, Issue 1.1, dated November 29, 2010, to the Airbus A318/319/320/321 AFM 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 Airbus Service Bulletin A320-71-1030, dated February 27, 2003; and Temporary Revision 4.02.00/20, dated May 3, 2004, to the Airbus A318/319/320/321 AFM; on August 13, 2004 (69 FR 45243, July 29, 2004).

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

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

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

Issued in Renton, Washington, on September 1, 2011.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2011-19-04 Airbus: Amendment 39-16809. Docket No. FAA-2010-1045; Directorate Identifier 2010-NM-101-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective October 21, 2011.

Affected ADs

(b) This AD supersedes AD 2009-17-04, Amendment 39-15995 (74 FR 41611, August 18, 2009).

Applicability

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

Subject

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

Reason

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

> One case of elevator servo-control disconnection has been experienced on an aeroplane of the A320 family. Investigation has revealed that the failure occurred at the servo-control rod eye-end.
>
> Further to this finding, additional inspections have revealed cracking at the same location on a number of other servo-control rod eye-ends. In several cases, both actuators of the same elevator surface were affected. The root cause of the cracking has not yet been determined and tests are ongoing.
>
> A dual servo-control disconnection on the same elevator could result in an uncontrolled surface, the elevator surface being neither actuated nor damped, which could lead to reduced control of the aeroplane.
>
> * * * * *

Compliance

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

Restatement of Requirements of AD 2009-17-04, Amendment 39-15995 (74 FR 41611, August 18, 2009), With Reduced and Revised Compliance Times and Revised Service Information:

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

(1) At the applicable times specified in paragraphs (g)(1)(i) and (g)(1)(ii) of this AD: Inspect both the left-hand and right-hand inboard elevator servo-control rod eye-ends for cracking, in accordance with the instructions of Airbus All Operators Telex (AOT) A320-27A1186, Revision 04, dated April 3, 2009; or the Accomplishment Instructions of Airbus Mandatory Service Bulletin A320-27A1186, Revision 07, dated March 2, 2011. As of the effective date of this AD, use Airbus Mandatory Service Bulletin A320-27A1186, Revision 07, dated March 2, 2011.

(i) For airplanes that have accumulated 10,000 total flight cycles or more as of September 22, 2009 (the effective date of AD 2009-17-04, Amendment 39-15995 (74 FR 41611, August 18, 2009)): At the later of the times specified in paragraphs (g)(1)(i)(A) and (g)(1)(i)(B) of this AD.

(A) Within 1,500 flight cycles after September 22, 2009.

(B) Within 1,500 flight cycles after accumulating 10,000 total flight cycles since first flight of the airplane.

(ii) For airplanes that have accumulated less than 10,000 total flight cycles as of September 22, 2009: At the later of the times specified in paragraphs (g)(1)(ii)(A) and (g)(1)(ii)(B) of this AD.

(A) Before the accumulation of 5,000 total flight cycles.

(B) Within 20 months after the effective date of this AD but no later than before the accumulation of 11,500 total flight cycles.

(2) At the applicable time specified in paragraphs (g)(2)(i) and (g)(2)(ii) of this AD: Inspect both the left-hand and right-hand outboard elevator servo-control rod eye-ends for cracking, in accordance with the instructions of Airbus AOT A320-27A1186, Revision 04, dated April 3, 2009; or the Accomplishment Instructions of Airbus Mandatory Service Bulletin A320-27A1186, Revision 07, dated March 2, 2011. As of the effective date of this AD, use Airbus Mandatory Service Bulletin A320-27A1186, Revision 07, dated March 2, 2011.

(i) For airplanes that have accumulated 10,000 total flight cycles or more as of September 22, 2009: At the later of the times specified in paragraphs (g)(2)(i)(A) and (g)(2)(i)(B) of this AD.

(A) Within 3,000 flight cycles after September 22, 2009.

(B) Within 3,000 flight cycles after accumulating 10,000 total flight cycles since first flight of the airplane.

(ii) For airplanes that have accumulated less than 10,000 total flight cycles as of September 22, 2009: At the later of the times specified in paragraphs (g)(2)(ii)(A) and (g)(2)(ii)(B) of this AD.

(A) Before the accumulation of 7,500 total flight cycles.

(B) Within 40 months after the effective date of this AD but no later than before the accumulation of 13,000 total flight cycles.

New Requirements of This AD:

Repetitive Inspections and Corrective Action

(h) Repeat the inspections of the left-hand and right-hand inboard and outboard elevator servo-control rod eye-ends for cracking as required by paragraphs (g)(1) and (g)(2) of this AD at the later of the times specified in paragraph (h)(1) or (h)(2) of this AD. Repeat the inspections thereafter at intervals not to exceed 5,000 flight cycles.

(1) Within 5,000 flight cycles after the last inspection required by paragraph (g)(1) or (g)(2) of this AD as applicable.

(2) Within 6 months after the effective date of this AD.

(i) If any cracking is found during any inspection required by this AD, before further flight, accomplish all applicable corrective actions, in accordance with the Accomplishment Instructions and figures of Airbus Mandatory Service Bulletin A320-27A1186, Revision 07, dated March 2, 2011.

Parts Installation

(j) As of the effective date of this AD, no person may install on any airplane an elevator servo-control rod eye-end unless it is new or has been inspected in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A320-27A1186, Revision 07, dated March 2, 2011, with no crack findings.

Credit for Actions Accomplished in Accordance With Previous Service Information

(k) Actions done before the effective date of this AD in accordance with the service information specified in table 1 of this AD are acceptable for compliance with the corresponding requirements of paragraphs (g)(1) and (g)(2) of this AD. Actions 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 requirements of paragraph (h) of this AD.

Table 1–Credit Service Information for Paragraph (g) of This AD

Airbus AOT –	Revision –	Dated –
A320-27A1186	Original	June 23, 2008
A320-27A1186	01	August 11, 2008
A320-27A1186	02	March 30, 2009
A320-27A1186	03	April 1, 2009
A320-27A1186	04	April 3, 2009

Table 2–Credit Service Information for Paragraph (h) of This AD

Airbus Service Bulletin –	Revision –	Dated –
A320-27A1186	05	March 10, 2010
A320-27A1186	06	December 14, 2010

FAA AD Differences

Note 1: 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, 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: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1405; fax (425) 227-1149. Information may be e-mailed 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. AMOCs approved previously in accordance with AD 2009-17-04,

Amendment 39-15995 (74 FR 41611, August 18, 2009), are approved as AMOCs for the corresponding provisions of this AD.

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

Related Information

(m) Refer to MCAI EASA Airworthiness Directive 2010-0046, dated March 19, 2010; and Airbus Mandatory Service Bulletin A320-27A1186, Revision 07, dated March 2, 2011; for related information.

Material Incorporated by Reference

(n) You must use Airbus Mandatory Service Bulletin A320-27A1186, Revision 07, including Appendices 1, 2, 3, 4, 5, and 6, dated March 2, 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 Airbus, Airworthiness Office–EAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; e-mail: account.airworth-eas@airbus.com; Internet http://www.airbus.com.

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

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

Issued in Renton, Washington, on September 7, 2011.
Jeffrey E. Duven,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2011-20-02 BAE Systems (Operations) Limited: Amendment 39-16811. Docket No. FAA-2011-0569; Directorate Identifier 2010-NM-240-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective October 28, 2011.

Affected ADs

(b) None.

Applicability

(c) This AD applies to 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; all serial numbers.

Subject

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

Reason

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

> BAE Systems have received reports of in-service failure of the Main Landing Gear (MLG) shock absorber lower attachment pin.
>
> * * * * *
>
> This condition, if not detected and corrected, could lead to a MLG collapse on the ground or during landing and consequently damage to the aeroplane or injury to the occupants.

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.

Inspections

(g) Within 4,000 flights cycles or 2 years after the effective date of this AD, whichever occurs first: Do the initial inspection of the MLG shock absorber lower attachment pins in accordance with paragraph 2.C of BAE Systems (Operations) Limited Inspection Service Bulletin ISB.32-176, initial issue, dated November 12, 2009; and paragraph 3 of Messier-Dowty Service Bulletin 146-32-157, excluding Appendix A, dated February 12, 2009.

(h) Thereafter, at intervals not to exceed 8,000 flights cycles or 4 years, whichever occurs first, repeat the inspection required by paragraph (g) of this AD.

Corrective Action

(i) If, during any inspection required by paragraphs (g) and (h) of this AD, the chromium plating on the outer diameter of any pin is found cracked, or the base material is exposed, or any corrosion is found on the chromium plating on the outer diameter of any pin, before further flight, replace the pin with a serviceable pin in accordance with paragraph 2.C of BAE Systems (Operations) Limited Inspection Service Bulletin ISB.32-176, initial issue, dated November 12, 2009; and paragraph 3 of Messier-Dowty Service Bulletin 146-32-157, excluding Appendix A, dated February 12, 2009.

(j) Replacing the pin, as required by paragraph (i) of this AD, does not constitute a terminating action for the repetitive inspections required by paragraph (h) of this AD.

FAA AD Differences

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

Other FAA AD Provisions

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. 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 e-mailed 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

(l) Refer to MCAI European Aviation Safety Agency Airworthiness Directive 2010-0201, dated October 5, 2010; BAE Systems (Operations) Limited Inspection Service Bulletin ISB.32-176, initial issue, dated November 12, 2009; and Messier-Dowty Service Bulletin 146-32-157, excluding Appendix A, dated February 12, 2009; for related information.

Material Incorporated by Reference

(m) You must use BAE Systems (Operations) Limited Inspection Service Bulletin ISB.32-176, initial issue, dated November 12, 2009; and Messier-Dowty Service Bulletin 146-32-157, excluding Appendix A, dated February 12, 2009; to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For 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; e-mail RApublications@baesystems.com; Internet http://www.baesystems.com/Businesses/RegionalAircraft/index.htm.

(3) For Messier-Dowty service information identified in this AD, contact 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.

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

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

Issued in Renton, Washington on September 14, 2011.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2011-20-03 Airbus: Amendment 39-16812. Docket No. FAA-2011-0647; Directorate Identifier 2010-NM-193-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective October 28, 2011.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Airbus Model A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, and C4-605R Variant F airplanes; and Model A310-203, -204, -221, -222, -304, -322, -324, and -325 airplanes; certificated in any category; equipped with carbon fiber reinforced plastic rudders having any part number and serial number listed in table 1, 2, 3, or 4 of this AD.

Table 1–Rudder Information

Rudder Part Number	Affected Rudder Serial Number
A554-71710-000-00	TS-2010
A554-71710-000-00	TS-2027
A554-71710-000-00	TS-2030
A554-71710-002-00	TS-2043
A554-71710-004-00	TS-2048

Table 2–Rudder Information

Rudder Part Number	Affected Rudder Serial Number
MSN-scrapped	TS-1362
A554-71710-000-00	TS-2006
A554-71710-000-00	TS-2008
A554-71710-002-00	TS-2033
A554-71710-004-00	TS-2054
A554-71710-004-00	TS-2061
A554-71710-004-00	TS-2071
A554-71710-004-00	TS-2072

A554-71710-004-00	TS-2073
A554-71730-000-00-0000	TS-2082
A554-71730-000-00-0000	TS-2084
A554-71730-000-00-0000	TS-2085
A554-71730-000-00-0000	TS-2086
A554-71730-000-00-0000	TS-2087

Table 3–Rudder Information

Rudder Part Number	Affected Rudder Serial Number
A554-71500-016-30	HF-1254
A554-71710-004-00	TS-2049
A554-71710-004-00	TS-2055
A554-71710-004-00	TS-2059

Table 4–Rudder Information

Rudder Part Number	Affected Rudder Serial Number
A554-71500-016-91	HF-1044
A554-71500-014-00	HF-1116
A554-71500-016-00	HF-1183
A554-71500-016-00	HF-1184
A554-71500-026-00	TS-1402

Subject

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

Reason

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

> Surface defects were visually detected on the rudder of an A319 and an A321 in-service aeroplane. Investigation has determined that the defects reported on both rudders corresponded to areas that had been reworked in production. The investigation confirmed that the defects were as a result of de-bonding between the skin and honeycomb core. Such reworks were also performed on some rudders fitted on A310 and A300-600 aeroplanes.
>
> An extended de-bonding, if not detected and corrected, may degrade the structural integrity of the rudder. The loss of the rudder leads to degradation of the handling qualities and reduces the controllability of the aeroplane.

* * * * *

Compliance

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

Inspections and Corrective Actions for Rudders Identified in Tables 1, 2, and 3

(g) For rudders identified in table 1 or table 2 of this AD: Do the actions specified in paragraph (g)(1) or (g)(2) of this AD, as applicable, and paragraphs (g)(3) and (g)(4) of this AD, at the time specified. Do the actions in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A310-55-2049 (for Model A310 series airplanes) or A300-55-6048 (for Model A300-600 series airplanes), both dated March 16, 2010.

(1) For rudders identified in table 1 of this AD: Within 8 months after the effective date of this AD, perform a vacuum loss inspection in the "area 1" location defined in Airbus Mandatory Service Bulletin A310-55-2049 or A300-55-6048, both dated March 16, 2010, as applicable, to detect defects, including de-bonding.

(2) For rudders identified in table 2 of this AD: Within 24 months after the effective date of this AD, perform a vacuum loss inspection in the "area 1" location defined in Airbus Mandatory Service Bulletin A310-55-2049 or A300-55-6048, both dated March 16, 2010, as applicable, to detect defects, including de-bonding.

(3) Within 24 months after the effective date of this AD: Do an elasticity laminate checker inspection to detect defects, including de-bonding, in the trailing edge location.

(4) Repeat the inspection required by paragraph (g)(3) of this AD two times at intervals not to exceed 4,500 flight cycles, but not fewer than 4,000 flight cycles from the most recent inspection.

(h) For rudders identified in table 3 of this AD: Do the actions specified in paragraphs (h)(1) and (h)(2) of this AD at the time specified. Do the actions in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A310-55-2049 (for Model A310 series airplanes) or A300-55-6048 (for Model A300-600 series airplanes), both dated March 16, 2010.

(1) Within 4,500 flight cycles after the effective date of this AD, but not fewer than 4,000 flight cycles from the most recent elasticity laminate checker inspection: Do an elasticity laminate checker inspection to detect defects, including de-bonding, in the trailing edge location.

(2) Repeat the inspection required by paragraph (h)(1) of this AD one time within 4,500 flight cycles, but not fewer than 4,000 flight cycles from the last inspection.

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

(j) If no defect is found during the inspections required by paragraphs (g)(1) and (g)(2) of this AD, before further flight, restore the vacuum loss holes with the temporary restoration with self adhesive tape, temporary restoration with resin, or permanent restoration with resin and surface protection. Do the applicable actions specified in paragraph (j)(1) or (j)(2) of this AD.

(1) For airplanes on which a temporary restoration with self-adhesive disks or tapes is done, within 4 months after doing the restoration, do a detailed inspection for loose or missing self-adhesive disks or tapes and repeat the inspection thereafter at intervals not to exceed 4 months until the permanent restoration is done, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A310-55-2049 (for Model A310 series airplanes) or A300-55-6048 (for Model A300-600 series airplanes), both dated March 16, 2010. If any loose or missing self-adhesive disks or tapes are found during any inspection required by this AD, before further flight, close the holes, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A310-55-2049 or A300-55-6048, both dated March 16, 2010, as applicable. Do the permanent restoration within 4,500 flight cycles after doing the temporary restoration, in accordance with the

Accomplishment Instructions of Airbus Mandatory Service Bulletin A310-55-2049 or A300-55-6048, both dated March 16, 2010, as applicable.

(2) For airplanes on which a temporary restoration with resin is done: Within 4,500 flight cycles after doing the temporary restoration do the permanent restoration, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A310-55-2049 (for Model A310 series airplanes) or A300-55-6048 (for Model A300-600 series airplanes), both dated March 16, 2010.

Reporting

(k) At the applicable time specified in paragraph (k)(1) or (k)(2) of this AD: Report the results of each inspection required by paragraphs (g) and (h) of this AD, including no findings, to Airbus, as specified in Airbus Mandatory Service Bulletin A310-55-2049 (for Model A310 series airplanes) or A300-55-6048 (for Model A300-600 series airplanes), both dated March 16, 2010.

(1) Inspections done before the effective date of this AD: Within 30 days after the effective date of this AD.

(2) Inspections done on or after the effective date of this AD: Within 30 days after accomplishment of the inspection.

Replacement for Rudders Identified in Table 4

(l) For rudders identified in table 4 of this AD: Within 8 months after the effective date of this AD, replace the affected rudder with a serviceable unit, in accordance with a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, or the EASA (or its delegated agent).

Parts Installation

(m) As of the effective date of this AD, no person may install any rudder identified in table 1, 2, or 3 of this AD on any airplane, unless the rudder has been inspected and all applicable corrective actions have been done in accordance with paragraphs (g), (h), and (i) of this AD, as applicable.

(n) As of the effective date of this AD, no person may install any rudder identified in table 4 of this AD on any airplane.

FAA AD Differences

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

Other FAA AD Provisions

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, 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: Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-2125; fax (425) 227-1149. Information may be e-mailed 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

(p) Refer to MCAI EASA Airworthiness Directive 2010-0144, dated July 16, 2010; and Airbus Mandatory Service Bulletins A310-55-2049 and A300-55-6048, both dated March 16, 2010; for related information.

Material Incorporated by Reference

(q) You must use Airbus Mandatory Service Bulletin A310-55-2049, dated March 16, 2010; or Airbus Mandatory Service Bulletin A300-55-6048, dated March 16, 2010; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

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

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

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

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

Issued in Renton, Washington on September 14, 2011.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.