



**FEDERAL AVIATION ADMINISTRATION  
AIRWORTHINESS DIRECTIVES  
LARGE AIRCRAFT**

**BIWEEKLY 2011-27**

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# LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
<b>Biweekly 2011-01</b>			
2010-25-06		Boeing	737-200, -300, -400, and -500 series
2010-26-05		Dassault Aviation	Falcon 10, Fan Jet Falcon, Fan Jet Falcon Series C, D, E, F, and G, Mystere-Falcon 20-C5, 20-D5, 20-E5, 20-F5, Mystere-Falcon 200, Mystere-Falcon 50, Mystere-Falcon 900, Falcon 900EX, Falcon 2000 and Falcon 2000EX
2010-26-06		Boeing	737-600, -700, -700C, -800, and -900 series
2010-26-07		Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series
2010-26-08		Boeing	767-200, -300, -300F, and -400ER series
2010-26-10	S 2006-05-09	Boeing	747-200C, -200F, -400, -400D, and -400F series
2010-26-12		Airbus	A321-211, -212, -231, and -232
2010-26-13		Bombardier	DHC-8-301, -311, and -315
<b>Biweekly 2011-02</b>			
2010-02-05		Airbus	See AD
2010-24-05	COR	Pratt & Whitney Canada	Engine: PW305A and PW305B
2010-24-06	S 2006-12-18	Short Brothers PLC	SD3-60 SHERPA, SD3-SHERPA, SD3-30, and SD3-60
2011-01-01	S 2008-13-15	Embraer	EMB-135BJ
2011-01-02		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, 343, A340-211, -212, -213, -311, -312, and -313
2011-01-05		Boeing	727, 727C, 727-100, 727-100C, 727-200, and 727-200F
2011-01-06	S 2007-02-22	Airbus	A310-203, -204, -221, -222, -304, -322, -324, and -325
2011-01-07		328 Support Services GmbH	328-100 and -300
2011-01-08			
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
<b>Biweekly 2011-03</b>			
2011-02-05		Boeing	727, 727C, 727-100, 727-100C, 727-200, and 727-200F series
2011-02-06		Boeing	767-300 series
2011-02-09		Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, and -313
2011-03-01	S 2005-25-05	Pratt & Whitney	JT8D-7, -7A, -7B, -9, -9A, -11, -15, -15A, -17, -17A, -17R, and -17AR series

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

## LARGE AIRCRAFT

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<b>Biweekly 2011-07</b>			
2011-06-03		Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series
2011-06-05 2011-06-08	S 2007-18-52	Boeing Bombardier	737-600, -700, -700C, -800, -900, and -900ER series CL-600-2B19 (Regional Jet Series 100 & 440), CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900)
2011-06-09	S 2009-11-09	Airbus	A300 B4-601, A300 B4-603, A300 B4-620, A300 B4-622, A300 B4-605R, A300 B4-622R; A300 F4-605R, A300 F4-622R; and A300 C4-605R Variant F, A310-203, -204, -221, -222, -304, -322, -324, and -325
2011-06-11		Rolls-Royce plc	Engine: RB211-Trent 970-84, 970B-84, 972-84, 972B-84, 977-84, 977B-84, and 980-84 turbofan
2011-06-12 2011-07-01	S 2009-04-17	Boeing General Electric	MD-90-30 Engine: CF6-45A, CF6-45A2, CF6-50A, CF6-50C, CF6-50CA, CF6-50C1, CF6-50C2, CF6-50C2B, CF6-50C2D, CF6-50E, CF6-50E1, CF6-50E2, and CF6-50E2B
2011-07-02	S 2005-02-03	Pratt & Whitney	Engine: JT8D-209, -217, -217A, -217C, and -219 series turbofan
<b>Biweekly 2011-08</b>			
2011-07-04		Boeing	DC-9-14, DC-9-15, DC-9-15F, DC-9-21, DC-9-31, DC-9-32, DC-9-32 (VC-9C), DC-9-32F, DC-9-32F (C-9A), DC-9-32F (C9-B), DC-9-33F, DC-9-34, DC-9-34F, DC-9-41, and DC-9-51
2011-07-05 2011-07-06 2011-07-07 2011-07-08 2011-07-10 2011-07-11 2011-08-51	S 2010-10-18     E	Sicma Aero Seat Bombardier, Inc Fokker Services B.V. Airbus Bombardier, Inc. Dassault Aviation Boeing	Appliance: See AD CL-600-2B19 (Regional Jet Series 100 & 440) F.28 Mark 1000, 2000, 3000, and 4000 A340-211, -212, -213, -311, -312 and -313 BD-100-1A10 (Challenger 300) Mystere-Falcon 50 737-300, -400, and -500 series
<b>Biweekly 2011-09</b>			
2011-07-12 2011-08-02 2011-08-03 2011-08-04		Fokker Services B.V. Fokker Services B.V. Airbus Bombardier, Inc	F.27 Mark 050 F.27 Mark 050 A340-541 and -642 CL-600-2C10 (Regional Jet Series 700, 701 & 702), CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900)
2011-08-05		Airbus	A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, A300 C4-605R Variant F, A310-203, -204, -221, -222, -304, -322, -324, and -325
2011-08-08		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, -100 SU, ERJ 170-200 LR, -200 SU, -200 STD, ERJ 190-100 STD, -100 LR, -100 ECJ, -100 IGW, ERJ 190-200 STD, -200 LR, and -200 IGW
2011-08-10 2011-08-11	S 98-19-12 S 2005-13-19	Rolls-Royce plc BAE Systems (Operations) Limited	Engine: RB211-Trent 768-60 and RB211-Trent 772-60 turbofan BAe 146-100A, -200A, -300A, Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2011-08-12		Airbus	A330-301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, A340-311, -312, and -313
2011-09-01 2011-09-02 2011-09-03 2011-09-05 2011-09-06	S 2002-02-07	Airbus Saab AB, Saab Aerosystems Lockheed Martin Corp Boeing Airbus	A340-541, and -642 340A (SAAB/SF340A) and SAAB 340B 382, 382B, 382E, 382F, and 382G 777-200, -300, and -300ER series A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, and -313

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

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

### 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

## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
<b>Biweekly 2011-15</b>			
2011-09-09		Bombardier, Inc.	CL-600-2A12 (CL-601), CL-600-2B16 (CL-601-3A and CL-601-3R Variants), and CL-600-2B16 (CL-604 Variants)
2011-12-13	COR	Boeing	737-600, -700, -700C, -800, -900, and -900ER series
2011-13-01		Rolls-Royce plc	Engine: RB211-524D4-19, -524D4-B-19, -524D4-39, -524D4-B-39, -524D4X-19, -524D4X-B-19, -524H-36, -524H2-19, -524H-T-36, -524H2-T-19, -524G2-19, -524G3-19, -524G2-T-19, and -524G3-T-19
2011-14-01		Airbus	A300 B4-601, B4-603, B4-620, B4-622; A300 B4-605R, B4-622R; A300 F4-605R, F4-622R; A300 C4-605R Variant F; A310-203, -204, -221, -222, -304, -322, -324, and -325
2011-14-03		Boeing	DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87) and MD-88
2011-14-04		Dassault Aviation	FALCON 7X
2011-14-08		B/E Aerospace	Appliance: Continuous Flow Passenger Oxygen Mask Assembly
2011-14-10		Airbus	A330-342
2011-14-11		Boeing	747-400 and -400D series
2011-14-12		Saab AB, Saab Aerosystems	SAAB 2000
2011-15-01		Boeing	DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88
2011-15-02	S 2008-20-01	Lockheed Martin	382, 382B, 382E, 382F, and 382G
2011-15-03	S 97-26-07	Boeing	747-100, -100B, -100B SUD, -200B, -200C, -200F, -300, -400, -400D, -400F, 747SR, and 747SP series
2011-15-06		General Electric	Engine: GE90-76B; GE90-77B; GE90-85B; GE90-90B; and GE90-94B turbofan
<b>Biweekly 2011-16</b>			
2011-14-06	S 2007-20-05	Airbus	A318-111, -112, -121, -122, A319-111, -112, -113, -114, -115, -131, -132, -133, A320-111, -211, -212, -214, -231, -232, -233, A321-111, -112, -131, -211, -212, -213, -231, and -232
2011-15-07		328 Support Services GmbH	328-100 and -300
2011-15-08		Airbus	A300 B4-601, B4-603, B4-620, B4-622, A300 B4-605R, B4-622R, A300 F4-605R, F4-622R, A300 C4-605R Variant F; A310-203, -204, -221, -222, -304, -322, -324, and -325
2011-15-09	S 2011-05-14	Bombardier, Inc.	DHC-8-400, -401, and -402
2011-16-02		Boeing	747 and 767
<b>Biweekly 2011-17</b>			
2011-09-09	Cor	Bombardier, Inc.	CL-600-2A12 (CL-601), CL-600-2B16 (CL-601-3A and CL-601-3R Variants), CL-600-2B16 (CL-604 Variants), and CL-600-2B16 (CL-604 Variants)
2011-14-07		Pratt & Whitney	Engine: PW4074 and PW4077 turbofan
2011-16-01	S 2011-12-51	Dassault Aviation	FALCON 7X
2011-16-03		Airbus	See AD
2011-16-06		Boeing	747-400 and -400F series
2011-17-02		Airbus	A320-214, -232, and -233
2011-17-03		Fokker Services B.V.	F.28 Mark 1000, 2000, 3000, and 4000
2011-17-10		Fokker Services B.V.	F.28 Mark 1000, 2000, 3000, and 4000

# LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
<b>Biweekly 2011-18</b>			
2011-17-04		Bombardier	DHC-8-400, -401, and -402
2011-17-07	S 2006-09-07	M7 Aerospace LP Airbus	SA226-T, SA226-T(B), SA226-TC, SA226-AT A330-201, -202, -203, -223, -223F, -243, -243F, A330-301, -302, -303, -321, -322, -323, -341, -342, and -343
2011-17-09		Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, A330-301, -302, -303, -321, -322, -323, -341, -342, and -343
2011-17-11		Boeing	DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88
2011-17-12		Bombardier	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705) and Model CL-600-2D24 (Regional Jet Series 900)
2011-17-16		Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-311, -312, -313, A340-541 and -642
2011-18-01		General Electric	Engine: CF6-45A, CF6-45A2, CF6-50A, CF6-50C, CF6-50CA, CF6-50C1, CF6-50C2, CF6-50C2B, CF6-50C2D, CF6-50E, CF6-50E1, and CF6-50E2 series turbofan
2011-18-02		General Electric	Engine: CF34-10E2A1; CF34-10E5; CF34-10E5A1; CF34-10E6; CF34-10E6A1; CF34-10E7; and CF34-10E7-B turbofan
2011-18-03		Boeing	737-600, -700, -700C, -800, -900 series, 737-600, -700, -700C, -800, and -900 series
2011-18-05		Saab Ab, Saab Aerosystems	SAAB 2000
2011-18-08		Bombardier	CL-600-2B19 (Regional Jet Series 100 & 440)
2011-18-51	E	Honeywell International, Inc.	Engine: TPE331
<b>Biweekly 2011-19</b>			
2005-25-10R1	R 2005-25-10	Dowty Propellers	Propeller: R321/4-82-F/8, R324/4-82-F/9, R333/4-82-F/12, and R334/4-82-F/13
2011-18-04		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, -100 SU; ERJ 170-200 LR, -200 SU, -200; ERJ 190-100 STD, -100 LR, -100 ECJ, -100 IGW; ERJ 190-200 STD, -200 LR, and -200 IGW
2011-18-14		Embraer	ERJ 190-100 STD, -100 LR, -100 ECJ, -100 IGW; ERJ 190-200 STD, -200 LR, and -200 IGW
2011-18-18		Bombardier	DHC-8-400, -401, and -402
<b>Biweekly 2011-20</b>			
2011-08-07	COR	Rolls-Royce plc	Engine: RB211-Trent 875-17, RB211-Trent 877-17, RB211-Trent 884-17, RB211-Trent 884B-17, RB211-Trent 892-17, RB211-Trent 892B-17, and RB211-Trent 895-17 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

## LARGE AIRCRAFT

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

## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
<b>Biweekly 2011-25</b>			
2011-24-02		Gulfstream Aerospace	GV and GV-SP
2011-24-03		Bombardier	DHC-8-400, -401, and -402
2011-24-04		McDonnell Douglas	DC-10-10, DC-10-10F, and MD-10-10F
2011-24-05	S 2007-16-02	Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, and -313
2011-24-06	S 2010-10-22	BAE Systems (Operations)	BAe 146-100A, -200A, and -300A airplanes; and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2011-24-09		Airbus	A340-211, -212, -213, -311, -312 and -313
2011-24-10		Bombardier	DHC-8-201, and -202
2011-24-11		Honeywell International	Engine: ALF502L-2C, ALF502R-3, ALF502R-3A, ALF502R-5, LF507-1F, and LF507-IH
2011-24-12	S 2010-01-09	Boeing	737-200, -200C, -300, -400, and -500 series
<b>Biweekly 2011-26</b>			
2011-25-02		BRP-Powertrain GmbH & Co. KG	Engine: Rotax 912 F2, 912 F3, 912 F4, 912 S2, 912 S3, 912 S4, 914 F2, 914 F3, and 914 F4
2011-25-06		Boeing	MD-11 and MD-11F
2011-25-07		BAE Systems (Operations) Limited	4101
2011-25-08		International Aero Engines	Engine: V2500-A1, V2522-A5, V2524-A5, V2525-D5, V2527-A5, V2527E-A5, V2527M-A5, V2528-D5, V2530-A5, and V2533-A5
2011-25-09		Pratt & Whitney Division	Engine: See AD
2011-25-10		Pratt & Whitney Corp	Engine: JT9D-7R4H1
2011-25-11	S 2008-09-07	Boeing	757-200, 757-200PF, 757-200CB, 757-300, 767-200, 767-300, and 767-300F series
2011-26-03	S 2010-24-12	Boeing	777-200, -200LR, -300, and -300ER
<b>Biweekly 2011-27</b>			
2011-25-03		Learjet	45
2011-26-05	S 2010-26-13	Bombardier	DHC-8-301, -311, and -315
2011-26-06		Airbus	See AD
2011-26-08		Rolls-Royce plc	Engine: RB211-Trent 875-17, 877-17, 884-17, 884B-17, 892-17, 892B-17, and 895-17
2011-26-09		Boeing	737-600, -700, -700C, -800, -900, and -900ER series
2011-26-11		General Electric	Engine: GE90-110B1 and GE90-115B
2011-27-02		Lockheed Martin	L-1011-385-1, L-1011-385-1-14, L-1011-385-1-15, and L-1011-385-3
2011-27-51	E	Hawker Beechcraft	1900, 1900C, and 1900D



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**2011-25-03 Learjet Inc.:** Amendment 39-16879; Docket No. FAA-2011-0651; Directorate Identifier 2011-NM-041-AD.

**(a) Effective Date**

This AD is effective January 23, 2012.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Learjet Inc. Model 45 airplanes, certificated in any category; all serial numbers.

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

**(d) Subject**

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

**(e) Unsafe Condition**

This AD was prompted by a report of the potential for fatigue cracking of the end cap of the main landing gear (MLG) prior to the published life limitation. We are issuing this AD to prevent fatigue cracking of the end cap of the MLG, which could result in the failure of the MLG actuator upon landing, and failure of the MLG to extend or retract during flight.

**(f) Compliance**

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

**(g) Maintenance Program Revision**

Within 30 days after the effective date of this AD, revise the maintenance program by incorporating inspection reference number (IRN) T3220105 (Main Landing Gear Actuator End Cap (part number (P/N) 200-0303)), as specified in Learjet 40 Temporary Revision 4-23, dated January 24, 2011, to Learjet 40 Maintenance Manual; or Learjet 45 Temporary Revision 4-34, dated January

24, 2011, to Learjet 45 Maintenance Manual; as applicable. The initial compliance time for the replacement specified in IRN T3220105 is prior to the accumulation of 2,387 total flight cycles on the end cap (P/N 200-0303), or within 25 flight cycles after the effective date of this AD, whichever occurs later.

**(h) No Alternative Actions or Intervals**

After accomplishing the revision required by paragraph (g) of this AD, no alternative actions (e.g., replacements) 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.

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

(1) The Manager, Wichita Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 FR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

**(j) Related Information**

For more information about this AD, contact Paul Chapman, Aerospace Engineer, Airframe and Services Branch, ACE-118W, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, KS 67209; phone: (316) 946-4152; fax: (316) 946-4129; email: paul.chapman@faa.gov.

**(k) Material Incorporated by Reference**

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

(i) Learjet 40 Temporary Revision 4-23, dated January 24, 2011, to Learjet 40 Maintenance Manual, approved for IBR January 23, 2012.

(ii) Learjet 45 Temporary Revision 4-34, dated January 24, 2011, to Learjet 45 Maintenance Manual, approved for IBR January 23, 2012.

(2) For Learjet service information identified in this AD, contact Learjet, Inc., One Learjet Way, Wichita, Kansas 67209-2942; telephone (316) 946-2000; fax (316) 946-2220; email ac.ict@aero.bombardier.com; Internet <http://www.bombardier.com>.

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

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

Issued in Renton, Washington, on November 23, 2011.  
Ali Bahrami,  
Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



**2011-26-05 Bombardier, Inc.:** Amendment 39-16895. Docket No. FAA-2011-0916; Directorate Identifier 2011-NM-127-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective January 23, 2012.

**Affected ADs**

- (b) This AD supersedes AD 2010-26-13, Amendment 39-16553 (75 FR 81420, December 28, 2010).

**Applicability**

- (c) This AD applies to Bombardier, Inc. Model DHC-8-301, -311, and -315 airplanes, certificated in any category; having serial numbers 100 through 530 inclusive.

**Subject**

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

**Reason**

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

Several cases of aileron terminal quadrant support brackets that were manufactured using sheet metal have been found cracked on DHC-8 Series 300 aircraft. Investigation revealed that the failure of the support bracket was due to fatigue. Failure of the aileron terminal quadrant support bracket could result in an adverse reduction of aircraft roll control.

\* \* \* \* \*

These conditions could result in loss of control of the airplane.

**Compliance**

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

**Restatement of Requirements of AD 2010-26-13, Amendment 39-16553, (75 FR 81420, December 28, 2010) With Reduced Compliance Time and no New Service Information**

**Actions**

(g) For airplanes with an aileron terminal quadrant support bracket having part number (P/N) 85711569: At the applicable times specified in paragraph (g)(1) or (g)(2) of this AD, install a new aileron input quadrant support bracket by incorporating MODSUM 8Q101250, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-57-43, Revision B, dated October 7, 2009.

(1) For airplanes that have accumulated 30,000 total flight hours or more as of February 1, 2011 (the effective date of AD 2010-26-13, Amendment 39-16553 (75 FR 81420, December 28, 2010)): Within 3,000 flight hours after February 1, 2011.

(2) For airplanes that have accumulated less than 30,000 total flight hours as of February 1, 2011: At the earlier of the times of paragraphs (g)(2)(i) and (g)(2)(ii).

(i) Before the accumulation of 33,000 total flight cycles or within 6,000 flight hours after February 1, 2011, whichever occurs first.

(ii) Before the accumulation of 33,000 total flight hours or within 6,000 flight hours after the effective date of this AD, whichever occurs first.

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

(h) Doing the installation by incorporating MODSUM 8Q101250 is also acceptable for compliance with the requirements of paragraph (g) of this AD if done before February 1, 2011, in accordance with Bombardier Service Bulletin 8-57-43, dated August 9, 2002; or Bombardier Service Bulletin 8-57-43, Revision A, dated January 17, 2003.

**FAA AD Differences**

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

**Other FAA AD Provisions**

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (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 New York 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 Canadian Airworthiness Directive CF-2009-45, dated December 11, 2009; and Bombardier Service Bulletin 8-57-43, Revision B, dated October 7, 2009; for related information.

**Material Incorporated by Reference**

(k) You must use Bombardier Service Bulletin 8-57-43, Revision B, dated October 7, 2009, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register previously approved the incorporation by reference of Bombardier Service Bulletin 8-57-43, Revision B, dated October 7, 2009, on February 1, 2011 (75 FR 81420, December 28, 2010), under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone (416) 375-4000; fax (416) 375-4539; email [thd.qseries@aero.bombardier.com](mailto:thd.qseries@aero.bombardier.com); Internet <http://www.bombardier.com>.

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

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

Issued in Renton, Washington, on December 6, 2011.

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



**2011-26-06 Airbus:** Amendment 39-16896. Docket No. FAA-2011-0918; Directorate Identifier 2011-NM-090-AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective January 23, 2012.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Airbus Model A330-201, -202, -203, -223, -223F, -243, and -243F airplanes; Model A330-301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes; Model A340-211, -212, and -213 airplanes; Model A340-311, -312, and -313 airplanes; Model A340-541 airplanes; and Model A340-642 airplanes; certificated in any category; all serial numbers.

**Subject**

(d) Air Transport Association (ATA) of America Code 26: Fire Protection.

**Reason**

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

During a pre-flight test before delivery of an aeroplane from the Airbus production line, a fault message was triggered on FDU1 [fire detection unit].

Investigations by the supplier on the faulty FDU have identified a soldering quality issue on one of the internal cards. This quality issue resulted from a specific repair process that was applied to some FDU \* \* \* during manufacturing.

The FDU monitors the engine, Auxiliary Power Unit (APU) and Main Landing Gear (MLG) bay fire detection systems.

This condition, if not corrected, may adversely affect the fire detection system performance in case of a fire in the area that is monitored by the faulty FDU, potentially resulting in an unsafe condition.

\* \* \* \* \*

**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 1,000 flight hours after the effective date of this AD: Do an inspection to identify the fire detection unit (FDU) part number (P/N) and serial number (S/N) of each engine, auxiliary power unit (APU), and MLG bay (for Model A340-500 and -600 series airplanes only), as applicable, in accordance with the instructions of Airbus All Operators Telex (AOT) A330-26A3052, dated April 19, 2011 (for Model A330-200 and -300 series airplanes); Airbus AOT A340-200/300-26A4044, dated April 19, 2011 (for Model A340-200 and -300 series airplanes); or Airbus AOT A340-500/600-26A5024, dated April 19, 2011 (for Model A340-500 and -600 series airplanes). A review of maintenance records is acceptable in lieu of this inspection if the part number and serial number of the installed FDU can be conclusively determined from that review.

(h) If during the inspection required by paragraph (g) of this AD, an FDU with P/N 3711-00 is found installed and the serial number of the FDU is listed in table 1 of this AD: Before further flight, replace the FDU with a serviceable FDU, in accordance with the instructions of Airbus AOT A330-26A3052, dated April 19, 2011 (for Model A330-200 and -300 series airplanes); Airbus AOT A340-200/300-26A4044, dated April 19, 2011 (for Model A340-200 and -300 series airplanes); or Airbus AOT A340-500/600-26A5024, dated April 19, 2011 (for Model A340-500 and -600 series airplanes).

**Table 1—Affected P/N 3711-00 FDUs**

<b>Serial Numbers</b>
ZL0683
ZL0718
ZL0721 through ZL0725 inclusive
ZL0727
ZL0729 through ZL0731 inclusive
ZL0736
ZL0738
ZL0740
ZL0742
ZL0743
ZL0745
ZL0747
ZL0770
ZL0772
ZL0775
ZL0788
ZL0804

Note 1: Some of the affected P/N 3711-00 FDUs have been installed in production on certain airplanes, as indicated in table 2 of this AD.

**Table 2—FDUs Installed in Production**

<b>Model A330-200 and -300 airplanes manufacturer serial numbers</b>	<b>Position</b>	<b>S/N</b>
1177	ENG2 FDU (1WD2)	ZL0683
1191	ENG2 FDU (1WD2)	ZL0723
1192	ENG1 FDU (1WD1)	ZL0721
	ENG2 FDU (1WD2)	ZL0722
1193	APU FDU (13WG)	ZL0718
1195	ENG1 FDU (1WD1)	ZL0740
1196	ENG1 FDU (1WD1)	ZL0742
	ENG2 FDU (1WD2)	ZL0736
	APU FDU (13WG)	ZL0743
1198	ENG2 FDU (1WD2)	ZL0738
1199	APU FDU (13WG)	ZL0731
1200	ENG1 FDU (1WD1)	ZL0747
1206	ENG2 FDU (1WD2)	ZL0770

### Parts Installation

(i) As of the effective date of this AD, no person may install on any airplane, any P/N 3711-00 FDU with a serial number listed in table 1 of this AD, unless the FDU has been reworked and re-identified by L'Hotellier as specified in the instructions in Airbus AOT A330-26A3052, dated April 19, 2011 (for Model A330-200 and -300 series airplanes); Airbus AOT A340-200/300-26A4044, dated April 19, 2011 (for Model A340-200 and -300 series airplanes); or Airbus AOT A340-500/600-26A5024, dated April 19, 2011 (for Model A340-500 and -600 series airplanes).

### FAA AD Differences

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

### Other FAA AD Provisions

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1138; fax (425) 227-1149. Information may be emailed to:

9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight

standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

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

### **Related Information**

(k) Refer to MCAI European Aviation Safety Agency (EASA) Airworthiness Directive 2011-0073, dated April 20, 2011; Airbus AOT A330-26A3052, dated April 19, 2011; Airbus AOT A340-200/300-26A4044, dated April 19, 2011; and Airbus AOT A340-500/600-26A5024, dated April 19, 2011; for related information.

### **Material Incorporated by Reference**

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

(1) Airbus All Operators Telex (AOT) A330-26A3052, dated April 19, 2011. Only the first page of this document contains the document number and date.

(2) Airbus AOT A340-200/300-26A4044, dated April 19, 2011. Only the first page of this document contains the document number and date.

(3) Airbus AOT A340-500/600-26A5024, dated April 19, 2011. Only the first page of this document contains the document number and date.

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

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

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

Issued in Renton, Washington, on December 6, 2011.

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



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**2011-26-08 Rolls-Royce plc:** Amendment 39-16898; Docket No. FAA-2011-0836; Directorate Identifier 2010-NE-38-AD.

**(a) Effective Date**

This airworthiness directive (AD) becomes effective January 24, 2012.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all Rolls-Royce plc (RR) RB211-Trent 875-17, 877-17, 884-17, 884B-17, 892-17, 892B-17, and 895-17 turbofan engines. These engines are installed on, but not limited to, Boeing 777 series airplanes.

**(d) Reason**

This AD was prompted by fuel leaks from the engine that occurred in-service due to damage to sections of the fan case low-pressure (LP) fuel tubes, which run between the LP and the high-pressure (HP) fuel pumps. This damage was caused by fretting between the securing clips and the tube outer surface, which caused localized thinning of the tube wall thickness. The thinning of the tube wall causes the tube to fracture and leak fuel. We are issuing this AD to prevent engine fuel leaks, which could result in risk to the airplane.

**(e) Actions and Compliance**

Unless already done, do the following actions.

**(f) Initial Inspection and Clip replacement**

Within 2,000 hours in service after the effective date of this AD, or before accumulating 3,000 hours-since-new or 3,000 hours-since-last-inspection, whichever is latest, do one of the following:

**(1) On-Wing Inspection and Clip Replacement**

Inspect the fan case LP fuel tubes, part numbers (P/Ns) FK22617, FK19213, and FK23986. Replace the clips that hold the fuel tubes in place. Use paragraphs 3.A.(1) through 3.A.(3) (on-wing) of RR Non-modification Alert Service Bulletin (ASB) RB.211-73-AD685, Revision 6, dated February 21, 2011 to do the inspection. Replace any fan case LP fuel tubes that fail inspection.

**(2) In-Shop Inspection and Clip Replacement**

Inspect the fan case LP fuel tubes, P/N FK22617, FK19213, and FK23986. Replace the clips that hold the fuel tubes in place with new or serviceable clips. Use paragraphs 3.B.(1) through 3.B.(3) (in-shop) of RR Non-modification ASB RB.211-73-AD685, Revision 6, dated February 21, 2011 to do the inspection. Replace any fan case LP fuel tubes that fail inspection.

**(g) Repetitive Inspection and Clip Replacement**

Repeat the inspection required by paragraphs (f)(1) and (f)(2) of this AD and replace the clips at intervals not exceeding every 3,000 hours time-since-last-inspection.

**(h) Re-Installation Prohibition**

Do not re-install any clips replaced in accordance with paragraphs (f)(1) and (f)(2) of this AD.

**(i) Previous Inspection Credit**

If you previously performed the inspection required by Revision 3 of SB RB.211-73-D685, dated August 18, 2009, or Revision 4 of SB RB.211-73-D685, dated January 20, 2010, or Revision 5 of ASB RB.211-73-AD685, dated August 18, 2010, you met the initial inspection requirements of this AD.

**(j) Definition**

"Last inspection" means the last inspection of the fan case LP fuel tubes, P/Ns FK22617, FK19213, and FK23986, for fretting between the securing clips and the tube outer surface.

**(k) FAA AD Differences**

None.

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

The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

**(m) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information European Aviation Safety Agency (EASA) Airworthiness Directive 2010-0188, dated September 20, 2010, and Rolls-Royce plc Alert Service Bulletin RB.211-73-AD685, Revision 6, dated February 21, 2011, for related information. Contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE248BJ; phone: 011-44-1332-242424; fax: 011-44-1332-245418; or email: [http://www.rolls-royce.com/contact/civil\\_team.jsp](http://www.rolls-royce.com/contact/civil_team.jsp), for a copy of this service information.

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

**(n) Material Incorporated by Reference**

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

(2) Rolls-Royce plc Alert Service Bulletin RB.211-73-AD685, Revision 6, dated February 21, 2011, approved for IBR January 24, 2012.

(3) For service information identified in this AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE248BJ; phone: 011-44-1332-242424; fax: 011-44-1332-245418 or email: [http://www.rolls-royce.com/contact/civil\\_team.jsp](http://www.rolls-royce.com/contact/civil_team.jsp).

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

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

Issued in Burlington, Massachusetts, on December 12, 2011.

Thomas A. Boudreau,  
Acting Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.



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**2011-26-09: The Boeing Company:** Amendment 39-16899; Docket No. FAA-2011-0996; Directorate Identifier 2011-NM-068-AD.

**(a) Effective Date**

This AD is effective February 3, 2012.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, certificated in any category, as identified in Boeing Special Attention Service Bulletin 737-54-1046, dated February 16, 2011.

**(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 54: Nacelles/Pylons.

**(e) Unsafe Condition**

This AD was prompted by reports of excessive in-service wear damage of the thumbnail fairing edge seal, and of the panel rub strip and skin assembly of the fan cowl. We are issuing this AD to prevent failure of the fire seal, which could allow a fire in the fan compartment to spread beyond the firewall and reach the flammable fluid leakage zones, resulting in an uncontrolled fire.

**(f) Compliance**

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

**(g) Replace the Thumbnail Fairing Edge Seals**

Within 60 months after the effective date of this AD, replace the thumbnail fairing edge seals, on both the left side and the right side of engine 1 and engine 2, with new Nitronic 60 stainless steel alloy seals, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-54-1046, dated February 16, 2011.

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

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as

appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(i) Related Information**

For more information about this AD, contact Chris Parker, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: (425) 917-6496; fax: (425) 917-6590; email: chris.r.parker@faa.gov.

**(j) Material Incorporated by Reference**

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

(i) Boeing Special Attention Service Bulletin 737-54-1046, dated February 16, 2011.

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

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356. For information on the availability of this material at the FAA, call (425) 227-1221.

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

Issued in Renton, Washington, on December 13, 2011.

Michael Kaszycki,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2011-26-11 General Electric Company:** Amendment 39-16901; Docket No. FAA-2011-0278; Directorate Identifier 2010-NE-10-AD.

**(a) Effective Date**

This AD is effective February 3, 2012.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to General Electric Company (GE) GE90-110B1 and GE90-115B turbofan engines with high-pressure compressor (HPC) stages 2-5 spool, part number (P/Ns) 351-103-106-0, 351-103-107-0, 351-103-108-0, 351-103-109-0, 351-103-141-0, 351-103-142-0, 351-103-143-0, or 351-103-144-0, installed.

**(d) Unsafe Condition**

This AD was prompted by an aborted takeoff caused by liberation of small pieces from HPC stages 1-2 seal teeth and two shop findings of cracks in the seal teeth. We are issuing this AD to detect cracks in the HPC stages 1-2 seal teeth due to heavy rubs that could result in failure of the seal of the HPC stages 2-5 spool, uncontained engine failure, and damage to the airplane.

**(e) Compliance**

Comply with this AD when the HPC forward case half is removed from the engine after the effective date of this AD, unless the actions have already been done.

**(f) Inspection**

Perform an eddy current inspection (ECI) or a fluorescent penetrant inspection (FPI) of the HPC stages 1-2 seal teeth using paragraphs 3.B. or 3.C. of GE Service Bulletin (SB) GE90-100 S/B 72-0320, Revision 02, dated October 1, 2010.

**(g) Remove Cracked Spools**

Remove from service HPC stages 2-5 spool with cracked stages 1-2 seal teeth before further flight.

**(h) Previous Credit**

An ECI or FPI inspection performed before the effective date of this AD using GE SB GE90-100 S/B 72-0320, Revision 02, dated October 1, 2010, or earlier revision, satisfies the inspection requirement of this AD.

**(i) Installation of HPC Stator Stage 1 Interstage Seals**

(1) After the effective date of this AD, do not install or reinstall any HPC forward case unless it is equipped with either:

(i) HPC stator stage 1 interstage seals, P/N 351-109-503-0;

(ii) HPC stator stage 1 interstage seals, P/N 351-109-502-0, with the grooves on seals that meet the dimensional requirements defined in paragraph 3.D.(1) of GE SB GE90-100 S/B 72-360, Revision 04, dated November 7, 2011.

(iii) A mixture of the HPC stator stage 1 interstage seals listed in paragraphs (i)(1)(i) and (i)(1)(ii) of this AD.

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

The Manager, Engine Certification Office, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

**(k) Related Information**

(1) Contact Jason Yang, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: (781) 238-7747; fax: (781) 238-7199; email: jason.yang@faa.gov, for more information about this AD.

(2) GE Service Bulletins GE90-100 S/B 72-0320, Revision 02, dated October 1, 2010, and GE90-100 S/B 72-0360, Revision 04, November 7, 2011, pertain to the subject of this AD. Contact General Electric, GE-Aviation, Room 285, 1 Neumann Way, Cincinnati, Ohio 45215; email: geae.aoc@ge.com; phone: (513) 552-3272; fax: (513) 552-3329; for a copy of this service information.

**(l) Material Incorporated by Reference**

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

(i) General Electric Company (GE) Service Bulletin (SB) GE90-100 S/B 72-0320, Revision 02, October 1, 2010; and

(ii) GE SB GE90-100 S/B 72-0360, Revision 04, dated November, 7, 2011.

(2) For service information identified in this AD, contact General Electric, GE-Aviation, Room 285, 1 Neumann Way, Cincinnati, Ohio 45215; email: geae.aoc@ge.com; phone: (513) 552-3272; fax: (513) 552-3329.

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

(4) You may also review copies of the service information 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/cfr/ibr-locations.html>.

Issued in Burlington, Massachusetts, on December 15, 2011.  
Thomas A. Boudreau,  
Acting Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.



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**2011-27-02 Lockheed Martin Corporation/Lockheed Martin Aeronautics Company:**  
Amendment 39-16903; Docket No. FAA-2011-0919; Directorate Identifier 2010-NM-088-AD.

**(a) Effective Date**

This AD is effective February 3, 2012.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Lockheed Martin Corporation/Lockheed Martin Aeronautics Company Model L-1011-385-1, L-1011-385-1-14, L-1011-385-1-15, and L-1011-385-3 airplanes, certificated in any category, serial numbers 1002 through 1250 inclusive.

**(d) Subject**

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

**(e) Unsafe Condition**

This AD results from a damage tolerance analysis conducted by the manufacturer indicating that fatigue cracking could occur in wing rear spar and upper surface zones. We are issuing this AD to detect and correct such fatigue cracking, which could result in cracking that grows large enough to reduce the wing strength below certificated requirements and possibly cause fracture of the rear spar, resulting in extensive damage to the wing and possible fuel leaks.

**(f) Compliance**

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

**(g) Inspections of Wing Rear Spar and Upper Surface Zones, and Corrective Actions**

At the applicable time specified in paragraph (k) of this AD, do eddy current non-destructive inspections (NDI) and detailed inspections for cracking at the applicable zones specified in paragraph (g)(1) or (g)(2) of this AD, in accordance with the Accomplishment Instructions of Lockheed Service Bulletin 093-57-226, dated August 31, 2009. Repeat the inspections thereafter at the applicable interval specified in Table 1 of this AD.

(1) For Model L-1011-385-1, L-1011-385-1-14, and L-1011-385-1-15 airplanes: Zones 1A through 1E, and Zone 1F.

(2) For Model L-1011-385-3 airplanes: Zones 3A through 3E, and Zone 3F.

**(h) Additional Inspection if Cracking Is Found**

Except as specified in paragraph (j) of this AD, if any cracking is detected during any inspection required by paragraph (g) of this AD: Before further flight, remove the fastener(s) at the suspect area, as defined in Lockheed Service Bulletin 093-57-226, dated August 31, 2009; and do a secondary eddy current inspection to detect cracking of fastener holes with suspected crack indications; in accordance with the Accomplishment Instructions of Lockheed Service Bulletin 093-57-226, dated August 31, 2009.

**(i) Repair**

Except as specified in paragraph (j) of this AD, if a crack finding is confirmed by the inspection required by paragraph (h) of this AD and the cracking is within the allowable repair limits specified in Lockheed Martin Repair Drawing LCC-7622-369, Revision March 30, 1995: Before further flight, repair the cracking, in accordance with Lockheed Martin Repair Drawing LCC-7622-369, Revision March 30, 1995. If a crack finding confirmed by the inspection required by paragraph (h) of this AD is not within the allowable repair limits specified in Lockheed Martin Repair Drawing LCC-7622-369, Revision March 30, 1995: Before further flight, repair the cracking, in accordance with a method approved by the Manager, Atlanta Aircraft Certification Office (ACO), FAA. For a repair method to be approved by the Manager, Atlanta ACO, as required by this paragraph, the Manager's approval letter must specifically refer to this AD.

**(j) Exception to Service Bulletin**

If any cracking is found during any inspection required by this AD, and Lockheed Service Bulletin 093-57-226, dated August 31, 2009; or Lockheed Martin Repair Drawing LCC-7622-369, Revision March 30, 1995; specifies contacting Lockheed for appropriate action: Before further flight, repair the cracking in accordance with a method approved by the Manager, Atlanta ACO, FAA. For a repair method to be approved by the Manager, Atlanta ACO, as required by this paragraph, the Manager's approval letter must specifically refer to this AD.

**(k) Compliance Times for Inspections**

Do the inspections required by paragraph (g) of this AD at the applicable time specified in table 1 of this AD.

**Table 1—Compliance Times for Inspections**

<b>Airplane models and zones</b>	<b>Compliance time (whichever occurs later)</b>		<b>Repetitive interval (not to exceed)</b>
L-1011-385-1 having accumulated fewer than 7,000 flight cycles after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215; as of the effective date of this AD; Zones 1A through 1E; (Non-destructive Inspection (NDI))	Within 7,000 flight cycles or 10 years after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215, whichever occurs first.	Within 1,000 flight cycles after the effective date of this AD.	1,100 flight cycles.

L-1011-385-1 having accumulated fewer than 7,000 flight cycles after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215; as of the effective date of this AD; Zone 1F; (Detailed Inspection).	Within 7,000 flight cycles or 10 years after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215, whichever occurs first.	Within 90 flight cycles or 30 days after the effective date of this AD, whichever occurs later.	90 flight cycles.
L-1011-385-1 having accumulated 7,000 flight cycles or more flight cycles after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215; as of the effective date of this AD; Zones 1A through 1E; (NDI).	Within 1,000 flight cycles or 12 months after the effective date of this AD, whichever occurs first.	N/A	1,100 flight cycles.
L-1011-385-1 having accumulated 7,000 flight cycles or more after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215; as of the effective date of this AD; Zone 1F; (Detailed Inspection).	Within 90 flight cycles after the effective date of this AD.	Within 30 days after the effective date of this AD.	90 flight cycles.
L-1011-385-1-14 having accumulated fewer than 6,900 flight cycles after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215; as of the effective date of this AD; Zones 1A through 1E; (NDI).	Within 6,900 flight cycles or 10 years after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215, whichever occurs first.	Within 1,000 flight cycles after the effective date of this AD.	900 flight cycles.
L-1011-385-1-14 having accumulated fewer than 6,900 flight cycles after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215; as of the effective date of this AD; Zone 1F; (Detailed Inspection).	Within 6,900 flight cycles or 10 years after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215, whichever occurs first.	Within 90 flight cycles or 30 days after the effective date of this AD, whichever occurs later.	90 flight cycles.
L-1011-385-1-14 having accumulated 6,900 or more flight cycles after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215; as of the effective date of this AD; Zones 1A through 1E; (NDI).	Within 1,000 flight cycles or 12 months after the effective date of this AD, whichever occurs first.	N/A	900 flight cycles.

L-1011-385-1-14 having accumulated 6,900 or more flight cycles after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215; as of the effective date of this AD; Zone 1F; (Detailed Inspection).	Within 90 flight cycles after the effective date of this AD.	Within 30 days after the effective date of this AD.	90 flight cycles.
L-1011-385-1-15 having accumulated fewer than 5,600 flight cycles after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215; as of the effective date of this AD; Zones 1A through 1E; (NDI).	Within 5,600 flight cycles or 10 years after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215, whichever occurs first.	Within 1,000 flight cycles after the effective date of this AD.	500 flight cycles.
L-1011-385-1-15 having accumulated fewer than 5,600 flight cycles after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215; as of the effective date of this AD; Zone 1F; (Detailed Inspection).	Within 5,600 flight cycles or 10 years after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215, whichever occurs first.	Within 60 flight cycles or 30 days after the effective date of this AD, whichever occurs later.	60 flight cycles.
L-1011-385-1-15 having accumulated 5,600 or more flight cycles after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215; as of the effective date of this AD; Zones 1A through 1E; (NDI).	Within 1,000 flight cycles or 12 months after the effective date of this AD, whichever occurs first.	N/A	500 flight cycles.
L-1011-385-1-15 having accumulated 5,600 or more flight cycles after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215; as of the effective date of this AD; Zone 1F; (Detailed Inspection).	Within 60 flight cycles after the effective date of this AD.	Within 30 days after the effective date of this AD.	60 flight cycles.
L-1011-385-3 having accumulated fewer than 8,400 flight cycles after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215; as of the effective date of this AD; Zones 1A through 1E; (NDI).	Within 8,400 flight cycles or 10 years after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215, whichever occurs first.	Within 1,000 flight cycles after the effective date of this AD.	1,200 flight cycles.

L-1011-385-3 having accumulated fewer than 8,400 flight cycles after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215; as of the effective date of this AD; Zone 1F; (Detailed Inspection).	Within 90 flight cycles or 30 days after the effective date of this AD, whichever occurs later.	Within 85 flight cycles or 30 days after the effective date of this AD, whichever occurs later.	85 flight cycles.
L-1011-385-3 having accumulated 8,400 or more flight cycles after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215; as of the effective date of this AD; Zones 1A through 1E; (NDI).	Within 1,000 flight cycles or 12 months after the effective date of this AD, whichever occurs first.	N/A	1,200 flight cycles.
L-1011-385-3 having accumulated 8,400 or more flight cycles after the accomplishment of Lockheed Martin Service Bulletin 093-57-184, 093-57-196, or 093-57-215; as of the effective date of this AD; Zone 1F; (Detailed Inspection).	Within 85 flight cycles after the effective date of this AD.	Within 30 days after the effective date of this AD.	85 flight cycles.

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

(1) The Manager, Atlanta ACO, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

#### **(m) Related Information**

For more information about this AD, contact Carl Gray, Aerospace Engineer, Airframe Branch, ACE-117A, FAA, Atlanta ACO, 1701 Columbia Avenue, College Park, Georgia 30337; phone: (404) 474-5554; fax: (404) 474-5606; email: Carl.W.Gray@faa.gov.

#### **(n) Material Incorporated by Reference**

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

(i) Lockheed Service Bulletin 093-57-226, dated August 31, 2009, approved for IBR February 3, 2012.

(ii) Lockheed Martin Repair Drawing LCC-7622-369, Revision March 30, 1995, approved for IBR February 3, 2012. Only the first page of this document contains the manufacturer name, revision, and date of the document.

(2) For service information identified in this AD, contact Lockheed Martin Corporation/Lockheed Martin Aeronautics Company, Airworthiness Office, Dept. 6A0M, Zone 0252, Column P-58, 86 S. Cobb Drive, Marietta, Georgia 30063; telephone (770) 494-5444; fax (770) 494-5445; email [ams.portal@lmco.com](mailto:ams.portal@lmco.com); Internet <http://www.lockheedmartin.com/ams/tools/TechPubs.html>.

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

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

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

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



**DATE: December 23, 2011**

**AD #: 2011-27-51**

**Emergency airworthiness directive (AD) 2011-27-51 is sent to owners and operators of Hawker Beechcraft Corporation Models 1900, 1900C, and 1900D airplanes.**

### **Background**

This emergency AD was prompted by the following reported problems of the elevator bob-weight (stabilizer weight) traveling past its stop bolt, which allowed the attaching linkage to move over-center, reducing nose down elevator control.

In one instance, a Model 1900C airplane experienced jammed elevators on take-off after a loud bang was heard in the cockpit shortly after rotation. The flight crew noticed that they were unable to move the control column to a nose down position. Elevator movement was only available between neutral to full deflection nose up. The airplane pitch was controlled with the elevator trim and the airplane returned to base, landing safely. Upon inspection, mechanics noticed that the bob-weight interconnect link, part number (p/n) 101-524112-1, was upside down and trailing FORWARD from the control column weld assembly instead of trailing AFT as it should. With the link travel over-center, the geometry of the bob-weight was completely changed relative to its stop. This condition made the bob-weight hit its stop mid-travel, where it should actually have positive clearance from its stop at the full nose down position. The elevator could now only move between nose full up and neutral.

In another instance, on a Model 1900D airplane, during the takeoff roll the elevator controls felt heavy and appeared to be jammed/sticking, requiring more force than usual to rotate. The crew then aborted the takeoff run. Subsequent investigation revealed that the elevator bob-weight attaching link assembly traveled over-center, thus preventing full nose down elevator control authority.

The Model 1900 airplanes have the same type design and thus are subject to this unsafe condition.

This condition, if not corrected, could result in reduced nose down elevator control and loss of airplane control.

### **Relevant Service Information**

We reviewed Hawker Beechcraft Corporation Safety Communiqué #321, dated December 2011. The service information provides information to assist in doing the actions of this AD.

### **FAA's Determination**

We are issuing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

## AD Requirements

This AD requires inspecting the elevator bob-weight and attaching linkage for correct installation and for damage or deformation to the weight and/or weight bracket with corrective action as necessary.

## Interim Action

We consider this AD interim action to address the immediate unsafe condition affecting these airplanes. We may take further AD action at a later date.

## Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## Presentation of the Actual AD

We are issuing this AD under 49 U.S.C. Section 44701 according to the authority delegated to me by the Administrator.

**2011-27-51 Hawker Beechcraft Corporation:** Directorate Identifier 2011-CE-044-AD.

### (a) Effective Date

This Emergency AD is effective upon receipt.

### (b) Affected ADs

None.

### (c) Applicability

This AD applies to the following Hawker Beechcraft Corporation airplanes, certificated in any category:

	Models	Serial Numbers
(1)	1900	UA-3
(2)	1900C	UB-1 through UB-74 and UC-1 through UC-174
(3)	1900C (Military)	UD-1 through UD-6
(4)	1900D	UE-1 through UE-439

**(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 27, Flight Controls.

**(e) Unsafe Condition**

This AD was prompted by reports of the elevator bob-weight (stabilizer weight) traveling past its stop bolt, which allowed the attaching linkage to move over-center. We are issuing this AD to detect and correct conditions that could result in reduced nose down elevator control and loss of control of the airplane.

**(f) Compliance**

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

**(g) Inspections**

Within the next 10 hours time-in-service after receipt of this emergency AD, inspect the elevator bob-weight installation for the following conditions. Use Hawker Beechcraft Corporation Safety Communiqué #321, dated December 2011.

NOTE: The term “nose down” corresponds to the airplane nose down, down elevator, and control column forward position as used in this AD and Hawker Beechcraft Corporation Safety Communiqué # 321, dated December 2011.

(1) The correct positioning of the elevator control column link assembly, (part number (P/N) 101-524112-1 (1900/1900C) or P/N 101-524112-5 (1900D)). With the elevator control column in the full nose down position (control column forward), the link must form an angle between the link attachment point at the control column and the bell crank pivot point as shown in the Hawker Beechcraft Corporation Safety Communiqué photo labeled “Correct Link Orientation.” The link should be trailing AFT from the control column assembly.

(2) The clearance of the bob-weight stop bolt. With the elevator control column in the full nose down position (control column forward), the stabilizer weight stop bolt must have positive clearance with the face of the stabilizer weight.

(3) The condition of the bob-weight and alignment with the stop bolt. Inspect for evidence of scraping along either side of the weight by the stop bolt. With side pressure applied by hand to the stabilizer weight, no part of the stop bolt should protrude beyond the face of the stabilizer weight on either edge.

(4) The condition of the bob-weight support bracket. Inspect for evidence of damage or deformation by contact with the weight assembly.

**(h) Corrective Actions**

If any discrepancies are found in the inspections required in paragraph (g) of this AD, before further flight, do the following:

(1) Contact Hawker Beechcraft Corporation Technical Support by telephone at (800) 429-5372 or (316) 676-3140 to obtain FAA-approved repair or replacement instructions.

(2) Incorporate the repair or replacement specified in the FAA-approved instructions.

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

(1) The Manager, Wichita Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(j) Related Information**

(1) For further information about this AD, contact one of the following:

(i) Paul DeVore, Aerospace Engineer, Wichita ACO, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4142; fax: (316) 946-4107; email: paul.devore@faa.gov; or

(ii) Don Ristow, Aerospace Engineer, Wichita ACO, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4120; fax: (316) 946-4107; email: donald.ristow@faa.gov.

(2) For copies of the service information referenced in this AD, contact Hawker Beechcraft Corporation at P.O. Box 85, Wichita, Kansas 67201-0085; telephone: (800) 429-5372 or (316) 676-3140; Internet: <http://pubs.hawkerbeechcraft.com>.

(3) You may review copies of the referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Issued in Kansas City, Missouri, on December 23, 2011.

John Colomy,  
Acting Manager, Small Airplane Directorate,  
Aircraft Certification Service.