FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES
LARGE AIRCRAFT

BIWEEKLY 2011-14

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Federal Aviation Administration
Regulatory Support Division
Delegation and Airworthiness Programs Branch, AIR-140
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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

2011-08-09 Empresa Brasileira de Aeronautica S.A. (EMBRAER): Amendment 39-16659. Docket No. FAA-2010-0546; Directorate Identifier 2009-NM-215-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective August 1, 2011.

Affected ADs

(b) None.

Applicability

(c) This AD applies to all Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model EMB-120, -120ER, -120FC, -120QC, and -120RT airplanes, certificated in any category.

Subject

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

Reason

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

> It has been found that some fuel quantity probes may fail during the airplane life leading to an erroneous fuel quantity indication to the crew. This erroneous indication may lead to the airplane being operated with less fuel than indicated which may lead to an uncommanded in-flight shutdown of one or both engines due to fuel starvation.
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> * * * * *

Required actions include determining the real fuel quantity on each tank using the dripless measuring sticks, comparing the results of the fuel quantity measurement with the fuel master indicator and repeater indicator readings for each tank, and corrective actions as applicable. Corrective actions include replacing the measuring stick and its relevant magnetic float, replacing the master fuel quantity indicator, and replacing the repeater indicator, as applicable; inspecting defective tank units for contamination, corrosion and integrity of components, and repairing or replacing as necessary; inspecting system wiring from the connector at the wing root to the master indicator for condition and continuity; and correcting the fuel quantity indication system; as applicable.

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 600 flight hours or 180 days after the effective date of this AD, whichever occurs first, with at least 400 kg (882 lb) of fuel in each tank, determine the real fuel quantity in each tank using the dripless measuring sticks, in accordance with Subjects 28-41-00, Fuel Quantity Indicating System, and 28-42-00, Fuel Quantity Measuring Sticks Assembly–Description and Operation, of Chapter 28, Fuel, of the EMBRAER EMB120 Brasilia AMM, MM-120/1459, Revision 27, dated September 28, 2010; or in accordance with Task 28-25, Operational Check Fuel Quantity Indicating System (Measuring Sticks), specified in Section 3, Systems and Powerplant Inspection Requirements, in EMBRAER EMB120 Models Maintenance Review Board Report (MRBR), MRB-HI-200, Revision 26, dated January 5, 2010. Before further flight, compare the results of the fuel quantity measurement with the fuel master indicator and repeater indicator readings for each tank and do the applicable action in paragraph (g)(1), (g)(2), or (g)(3) of this AD.

(1) If the difference of the two measurements is greater than 60 kg (132 lb) on both tanks, before further flight do all applicable corrective actions including correcting the fuel quantity indication system (FQIS), in accordance with Subjects 28-41-00, Fuel Quantity Indicating System, and 28-42-00, Fuel Quantity Measuring Sticks Assembly–Description and Operation, of Chapter 28, Fuel, of the EMBRAER EMB120 Brasilia AMM, MM-120/1459, Revision 27, dated September 28, 2010.

(2) If the difference of the two measurements is greater than 60 kg (132 lb) on only one tank, and the conditions in paragraphs (g)(2)(i), (g)(2)(ii), and (g)(2)(iii) of this AD are met, do all applicable corrective actions including correcting the FQIS, in accordance with Subjects 28-41-00, Fuel Quantity Indicating System, and 28-42-00, Fuel Quantity Measuring Sticks Assembly–Description and Operation, of Chapter 28, Fuel, of the EMBRAER EMB120 Brasilia AMM, MM-120/1459, Revision 27, dated September 28, 2010, within 10 days after determining the real fuel quantity as specified in paragraph (g) of this AD.

(i) Before further flight after each refueling, the actions required in paragraph (g) of this AD are done;

(ii) Both fuel flow indicators are operating properly; and

(iii) The fuel used or fuel remaining function of the totalizer is operating properly.

(3) If the difference of the two measurements is greater than 60 kg (132 lb) on only one tank, and any condition in paragraph (g)(2)(i), (g)(2)(ii), or (g)(2)(iii) of this AD is not met, before further flight do all applicable corrective actions including correcting the FQIS, in accordance with Subjects 28-41-00, Fuel Quantity Indicating System, and 28-42-00, Fuel Quantity Measuring Sticks Assembly–Description and Operation, of Chapter 28, Fuel, of the EMBRAER EMB120 Brasilia AMM, MM-120/1459, Revision 27, dated September 28, 2010.

(h) Repeat the actions required in paragraph (g) of this AD thereafter at intervals not to exceed 600 flight hours or 180 days, whichever occurs first.

Credit for Actions Accomplished in Accordance With Previous Service Information

(i) Inspections accomplished before the effective date of this AD according to Subjects 28-41-00, Fuel Quantity Indicating System, and 28-42-00, Fuel Quantity Measuring Sticks Assembly–Description and Operation, of Chapter 28, Fuel, the EMBRAER EMB120 Brasilia Aircraft Maintenance Manual, MM-120/1459, Revision 24, dated March 30, 2009; Revision 25, dated September 28, 2009; and Revision 26, dated March 29, 2010; are considered acceptable for compliance with the corresponding actions specified in this AD.

FAA AD Differences

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

This AD requires doing all applicable corrective actions in accordance with Subjects 28-41-00, Fuel Quantity Indicating System, and 28-42-00, Fuel Quantity Measuring Sticks Assembly–

Description and Operation, of Chapter 28, Fuel, of the EMBRAER EMB120 Brasilia AMM, MM-120/1459, Revision 27, dated September 28, 2010. Corrective actions include replacing the measuring stick and its relevant magnetic float, replacing the master fuel quantity indicator, and replacing the repeater indicator, as applicable; inspecting defective tank units for contamination, corrosion and integrity of components, and repairing or replacing as necessary; inspecting system wiring from the connector at the wing root to the master indicator for condition and continuity; and correcting the fuel quantity indication system; as applicable. The MCAI does not provide a corrective action and only requires a repetitive functional check of the FQIS in accordance with Subject 28-42-00, Fuel Quantity Measuring Sticks Assembly–Description and Operation, of Chapter 28, Fuel, of the EMBRAER EMB120 Brasilia Aircraft Maintenance Manual, Revision 24, dated March 30, 2009. This difference has been coordinated with Agência Nacional de Aviação Civil (ANAC).

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, 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

(k) Refer to MCAI Brazilian Airworthiness Directive 2009-07-04, effective July 13, 2009; Task 28-25, Operational Check Fuel Quantity Indicating System (Measuring Sticks), specified in Section 3, Systems and Powerplant Inspection Requirements, in EMBRAER EMB120 Models Maintenance Review Board Report (MRBR), MRB-HI-200, Revision 26, dated January 5, 2010; and Subjects 28-41-00, Fuel Quantity Indicating System, and 28-42-00, Fuel Quantity Measuring Sticks Assembly–Description and Operation, of Chapter 28, Fuel, of the EMBRAER EMB120 Brasilia AMM, MM-120/1459, Revision 27, dated September 28, 2010; for related information.

Material Incorporated by Reference

(l) You must use Subjects 28-41-00, Fuel Quantity Indicating System, and 28-42-00, Fuel Quantity Measuring Sticks Assembly–Description and Operation, of Chapter 28, Fuel, of the EMBRAER EMB120 Brasilia AMM, MM-120/1459, Revision 27, dated September 28, 2010; or Task 28-25, Operational Check Fuel Quantity Indicating System (Measuring Sticks), specified in Section 3, Systems and Powerplant Inspection Requirements, in EMBRAER EMB120 Models Maintenance Review Board Report (MRBR), MRB-HI-200, Revision 26, dated January 5, 2010; as applicable; to do the actions required by this AD, unless the AD specifies otherwise. The revision level of EMBRAER EMB120 Brasilia Aircraft Maintenance Manual, MM-120/1459, Revision 27, dated September 28, 2010, is indicated only on the title page and Chapter 28 List of Effective Pages

of that document. The revision level of EMBRAER EMB120 Brasilia Maintenance Review Board Report, MRB-HI-200, Revision 26, dated January 5, 2010, is indicated only on the title page of that document; pages I-II of the List of Effective Pages of that document do not exist.

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

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

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

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

Issued in Renton, Washington, on March 25, 2011.

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

2011-12-51 Dassault Aviation: Amendment 39-16735; Docket No. FAA-2011-0477; Directorate Identifier 2011-NM-108-AD.

Effective Date

(a) This AD is effective July 12, 2011 to all persons except those persons to whom it was made immediately effective by Emergency AD 2011-12-51, issued on May 27, 2011, which contained the requirements of this amendment.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Dassault Aviation Model FALCON 7X airplanes, certificated in any category, all serial numbers.

Subject

(d) Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 27: Flight controls.

Unsafe Condition

(e) This AD was prompted by a report of an uncontrolled pitch trim runaway during descent. We are issuing this AD to prevent loss of control of the airplane.

Compliance

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

Flight Prohibited

(g) As of the effective date of this AD, operation of the airplane is prohibited.

Special Flight Permit

(h) 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), are not allowed.

Alternative Methods of Compliance (AMOCs)

(i)(1) 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 manager of the International Branch, send it to the attention of the person identified in the Related Information section of this AD. Information may be e-mailed to: 9-ANM-116-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.

Related Information

(j)(1) For further information about this AD, contact Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; phone: 425-227-1137; fax: 425-227-1149.

(2) Refer to MCAI European Aviation Safety Agency (EASA) Emergency Airworthiness Directive 2011-0102-E, dated May 26, 2011, for related information.

Material Incorporated by Reference

(k) None.

Issued in Renton, Washington, on June 16, 2011.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2011-13-04 Rolls-Royce plc: Amendment 39-16727; Docket No. FAA-2011-0445; Directorate Identifier 2011-NE-14-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective July 11, 2011.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Rolls-Royce plc RB211-Trent 553-61, RB211-Trent 553A2-61, RB211-Trent 556-61, RB211-Trent 556A2-61, RB211-Trent 556B-61, RB211-Trent 556B2-61, RB211-Trent 560-61, and RB211-Trent 560A2-61 turbofan engines, with right-hand (RH) fuel manifold assembly, part number FW18706, installed.

Reason

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

A Trent 500 engine has been found with thermal distress of the Intermediate Pressure (IP) Turbine Nozzle Guide Vanes. The resultant investigation found the root cause to be carbon blockage of the fuel spray nozzles. The source of the carbon has been identified to be the RH fuel manifold assembly. Analysis has verified that low fuel velocity and thermal input may cause formation of carbon in a specific region of the RH fuel manifold.

As advanced thermal distress of IP Turbine components may potentially result in uncontained, high energy debris release, the formation of carbon in the RH fuel manifold constitutes a potentially unsafe condition. To address and correct this unsafe condition, Rolls Royce have developed a cleaning or replacement programme of the RH fuel manifold and an optional part replacement.

We are issuing this AD to prevent the release of uncontained high-energy debris in the event of IP turbine component failure, which could result in damage to the airplane.

Actions and Compliance

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

Initial Cleaning and Inspection, or Replacement

(1) For engines that on the effective date of this AD, have not been repaired using Engine Management Program, Issue 7, dated May 7, 2010 or later version; and

(2) That have not incorporated Rolls-Royce Repeater Technical Variance TV97291, dated July 2009, or later version; and

(3) That have not had the RH fuel manifold assembly cleaned using Overhaul Process Manual TSD594-J, Task 70-00-00-100-121, as instructed in Component Maintenance Manual, Tubes, Hoses, and Ducts, dated October 2009, or later version; and

(4) That have not had the RH manifold assembly replaced with a new RH manifold assembly; and

(5) That have not incorporated Rolls-Royce plc Alert Service Bulletin No. RB.211-73-AG327, Revision 1, dated May 4, 2010, or later version, then:

(i) Initially clean and inspect the RH fuel manifold assembly or replace the RH fuel manifold assembly with a serviceable RH fuel manifold assembly.

(ii) Guidance on cleaning, inspecting, or replacing of the RH manifold assembly, can be found in Rolls-Royce plc Alert Service Bulletin No. RB.211-73-AG422, Revision 2, dated January 14, 2011.

(iii) Perform the cleaning, inspection, or replacement at the following times:

(A) For engines with 3,200 cycles-since-new (CSN) or more, clean and inspect within 200 cycles after the effective date of this AD.

(B) For engines with between 3,000 CSN and 3,199 CSN, clean and inspect no later than 3,400 CSN.

(C) For engines with between 2,600 CSN and 2,999 CSN, clean and inspect within 400 cycles after the effective date of this AD.

(D) For engines with between 2,400 CSN and 2,599 CSN, clean and inspect no later than 3,000 CSN.

(E) For engines with between 1,300 CSN and 2,399 CSN, clean and inspect within 600 cycles after the effective date of this AD.

(F) For engines with fewer than 1,300 CSN, clean and inspect no later than 1,900 CSN.

(6) For engines that on the effective date of this AD, have been repaired using Engine Management Program, Issue 7, dated May 7, 2010 or later version; or

(7) That have incorporated Rolls-Royce Repeater Technical Variance TV97291, dated July 2009, or later version; or

(8) That have had the RH fuel manifold assembly cleaned using Overhaul Process Manual TSD594-J, Task 70-00-00-100-121, as instructed in Component Maintenance Manual, Tubes, Hoses, and Ducts, dated October 2009, or later version; or

(9) That have had the RH manifold assembly replaced with a new RH manifold assembly; or

(10) That have incorporated Rolls-Royce plc Alert Service Bulletin No. RB.211-73-AG327, Revision 1, dated May 4, 2010, or later version, then:

(i) Initially clean and inspect the RH fuel manifold assembly or replace the RH fuel manifold assembly with a serviceable RH fuel manifold assembly, within 1,300 cycles since the engine most recently met any of the requirements of paragraphs (e)(6) through (e)(10) of this AD.

(ii) Guidance on cleaning, inspecting, or replacing of the RH manifold assembly, can be found in Rolls-Royce plc Alert Service Bulletin No. RB.211-73-AG422, Revision 2, dated January 14, 2011.

Repetitive Cleaning and Inspection, or Replacement

(11) Thereafter, repetitively clean and inspect the RH fuel manifold assembly or replace the RH fuel manifold assembly with a serviceable RH fuel manifold assembly, within 1,300 cycles since performing the last cleaning and inspection or replacement.

Optional Terminating Action

(12) As optional terminating action to the repetitive actions in this AD, remove RH fuel manifold assembly, part number FW18706, and install a redesigned RH fuel manifold assembly. Guidance on

installing the redesigned RH fuel manifold assembly can be found in Rolls-Royce plc Service Bulletin No. RB.211-73-G547, dated December 7, 2010.

FAA AD Differences

(f) None.

Alternative Methods of Compliance (AMOCs)

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

Related Information

(h) Refer to MCAI European Aviation Safety Agency Airworthiness Directive 2011-0050, dated March 21, 2011, Rolls-Royce plc Alert Service Bulletin No. RB.211-73-AG422, Revision 2, dated January 14, 2011, and Rolls-Royce plc Service Bulletin No. RB.211-73-G547, dated December 7, 2010, for related information. Contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE248BJ, telephone: 011-44-1332-242424; fax: 011-44-1332-245418; or e-mail via: http://www.rolls-royce.com/contact/civil_team.jsp, for a copy of this service information.

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

Material Incorporated by Reference

(j) None.

Issued in Burlington, Massachusetts, on June 14, 2011.
Peter A. White,
Acting Manager, Engine and Propeller Directorate,
Aircraft Certification Service.

2011-13-06 Bombardier, Inc.: Amendment 39-16729. Docket No. FAA-2011-0036; Directorate Identifier 2010-NM-230-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective August 1, 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; with serial numbers (S/N) 4003, 4004, 4006, and 4008 through 4205 inclusive.

Subject

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

Reason

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

> Bombardier Aerospace has completed a system safety review of the aeroplanes fuel system against fuel tank safety standards introduced in Chapter 525 of the Airworthiness Manual through Notice of Proposed Amendment (NPA) 2002-043 [which corresponds with the FAA's Special Federal Aviation Regulation (SFAR) 88]. The identified non-compliances were then assessed using Transport Canada Policy Letter No. 525-001, to determine if mandatory corrective action is required.
>
> The assessment showed that a number of modifications to the fuel system are required to mitigate unsafe conditions that could result in potential ignition source within the fuel system.

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 Applicable to Airplanes Having S/N 4003, 4004, 4006 & 4008 through 4118

(g) For airplanes having S/Ns 4003, 4004, 4006, and 4008 through 4118 inclusive: Within 6,000 flight hours after the effective date of this AD, incorporate the modifications required in paragraphs (g)(1), (g)(2), and (g)(3) of this AD, as applicable.

(1) Incorporate Bombardier Modsum 4-126330, "Fuel Tank System Design Left and Right Side (SFAR 88) Retrofit," by doing all the applicable actions in the Accomplishment Instructions of Bombardier Service Bulletin 84-57-09, Revision B, dated September 3, 2008.

(2) Incorporate Bombardier Modsum 4-126366, "Fuel Tank System and Fuel Indication–Wiring Identification, Segregation and Installation (High Level Sensor and Fuel Quantity Indication)–Retrofit," by doing all the applicable actions in the Accomplishment Instructions of Bombardier Service Bulletin 84-28-04, Revision B, dated October 21, 2009.

(3) For airplanes on which Bombardier Modsum 4-302000, "Standard Option–APU Installation," has been installed: Incorporate Bombardier Modsum 4-901425, "Fuel Feed to APU–Replacement of Couplings in Center Wing Left Side–SFAR 88," by doing all the applicable actions in the Accomplishment Instructions of Bombardier Service Bulletin 84-28-05, dated June 28, 2006.

(h) For airplanes having S/Ns 4003, 4004, 4006, and 4008 through 4118 inclusive, do Bombardier Fuel System Limitation (FSL) Task 284000-417 (Functional Check of the Fuel Tank Components and Plumbing Lines for Electrical Bonding) contained in Section 4-1, Fuel System Limitations, of Part 2–Airworthiness Limitation Items, Revision 5, dated April 21, 2010, of Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1-84-7, at the applicable times specified in paragraphs (h)(1) and (h)(2) of this AD. Where the task specifies contacting Bombardier for technical assistance, this AD requires repairs/rework 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).

(1) Except as provided in paragraphs (h)(1)(i) and (h)(1)(ii) of this AD, for airplanes that have incorporated either Bombardier Modsum 4-126330 or 4-901425 prior to the effective date of this AD: Do Bombardier Task 284000-417 in Section 4-1, Fuel System Limitations, of Part 2–Airworthiness Limitation Items, Revision 5, dated April 21, 2010, of Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1-84-7, within 6,000 flight hours after the effective date of this AD.

(i) Airplanes on which Bombardier Task 284000-417 in Section 4-1, Fuel System Limitations, of Part 2–Airworthiness Limitation Items, Revision 5, dated April 21, 2010, of Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1-84-7, was successfully completed after incorporation of Bombardier Modsum 4-126330 or 4-901425 do not need to comply with the requirements of paragraph (h) of this AD.

(ii) Airplanes on which Bombardier Modsum 4-126330 or 4-901425 was incorporated during manufacturing of the airplane do not need to comply with the requirements of paragraph (h) of this AD.

(2) For airplanes on which neither Bombardier Modsum 4-126330 nor 4-901425 were incorporated before the effective date of this AD: Do Bombardier Task 284000-417 in Section 4-1, Fuel System Limitations, of Part 2–Airworthiness Limitation Items, Revision 5, dated April 21, 2010, of Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1-84-7, upon completion of the incorporation of Bombardier Modsum 4-126330 and, if applicable, Bombardier Modsum 4-901425.

Actions Applicable to Airplanes S/N 4003, 4004, 4006 & 4008 Through 4118 Inclusive, Manufactured Before September 21, 2005

(i) For airplanes having S/N 4003, 4004, 4006, and 4008 through 4118 inclusive, on which the date of issuance of the original Canadian standard airworthiness certificate or the date of issuance of the original Canadian export certificate of airworthiness is before September 21, 2005: Within 6,000 flight hours after the effective date of this AD, incorporate Bombardier Modsum 4-126370, "Fuel

Tank System–Enhance Protective Covering for Electrical Cable Assembly," by doing all the applicable actions in the Accomplishment Instructions of Bombardier Service Bulletin 84-28-03, Revision C, dated May 15, 2009.

Actions Applicable to Airplanes S/N 4003, 4004, 4006 & 4008 Through 4118 Inclusive, Manufactured on or After September 21, 2005

(j) For airplanes having S/Ns 4003, 4004, 4006, and 4008 through 4118 inclusive, on which the date of issuance of the original Canadian standard airworthiness certificate or the date of issuance of the original Canadian export certificate of airworthiness is on or after September 21, 2005: Within 12,000 flight hours after the effective date of this AD, incorporate Bombardier Modsum 4-126370, "Fuel Tank System–Enhance Protective Covering for Electrical Cable Assembly," by doing all the applicable actions in the Accomplishment Instructions of Bombardier Service Bulletin 84-28-03, Revision C, dated May 15, 2009.

Actions Applicable to Airplanes S/N 4119 Through 4205 Inclusive

(k) For airplanes having S/N 4119 through 4205 inclusive: Within 6,000 flight hours after the effective date of this AD, incorporate Bombardier Modsum 4-113580, "Fuel Indication–High Level Sensor–Application of Sealant to Exposed End of Sensor Terminal Block Screws–Special Inspection and Rectification," by doing all the applicable actions in the Accomplishment Instructions of Bombardier Service Bulletin 84-28-07, dated August 1, 2008.

Credit for Actions Accomplished in Accordance With Previous Service Information

(l) Incorporation of Bombardier Modsum 4-126330 prior to the effective date of this AD according to the instructions contained in Bombardier Service Bulletin 84-57-09, Revision A, dated March 19, 2007, meets the requirements of paragraph (g)(1) of this AD.

(m) Incorporation of Bombardier Modsum 4-126366 prior to the effective date of this AD according to the instructions contained in Bombardier Service Bulletin 84-28-04, dated June 29, 2006; or Revision A, dated November 15, 2006; meets the requirements of paragraph (g)(2) of this AD.

(n) Incorporation of Bombardier Modsum 4-126370 prior to the effective date of this AD according to instructions contained in Bombardier Service Bulletin 84-28-03, Revision B, dated October 18, 2006, meets the requirements of paragraphs (i) and (j) of this AD.

FAA AD Differences

Note 1: This AD differs from the MCAI and/or service information as follows: The MCAI specifies to do Bombardier Task 284000-417 in Section 4-1, Fuel System Limitations, of Part 2–Airworthiness Limitation Items, Revision 5, dated April 21, 2010, of Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1-84-7, but does not specify what to do if the functional check finds that measured resistance exceeds the specified values. This AD requires contacting the Manager, New York ACO, FAA, or TCCA (or its delegated agent) for repair/rework instructions.

Other FAA AD Provisions

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

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

(p) Refer to MCAI Canadian Airworthiness Directive CF-2010-31, dated September 3, 2010; Bombardier Task 284000-417 in Section 4-1, Fuel System Limitations, of Part 2–Airworthiness Limitation Items, Revision 5, dated April 21, 2010, of Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1-84-7; and the Bombardier service bulletins identified in Table 1 of this AD; for related information.

Table 1–Relevant Service Information

Bombardier Service Bulletin -	Revision -	Dated -
84-28-03	C	May 15, 2009
84-28-04	B	October 21, 2009
84-28-05	Original	June 28, 2006
84-28-07	Original	August 1, 2008
84-57-09	B	September 3, 2008

Material Incorporated by Reference

(q) You must use Bombardier Task 284000-417 in Section 4-1, Fuel System Limitations, of Part 2–Airworthiness Limitation Items, Revision 5, dated April 21, 2010, of Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1-84-7, and the service information contained in Table 2 of this AD, as applicable, to do the actions required by this AD, unless the AD specifies otherwise. The revision level for Bombardier Task 284000-417 in Section 4-1, Fuel System Limitations, of Part 2–Airworthiness Limitation Items, Revision 5, dated April 21, 2010, of Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1-84-7, is specified only on the title page and page 1 of the record of Revisions of that document. Page 4 of Section 4-1, Fuel System Limitations, of Part 2–Airworthiness Limitation Items, Revision 5, dated April 21, 2010, of Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1-84-7, is not listed in the Table of Contents of that document.

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

(2) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; 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.

Table 2–Service Bulletins Incorporated by Reference

Document	Revision	Date
Bombardier Service Bulletin 84-28-03	C	May 15, 2009
Bombardier Service Bulletin 84-28-04	B	October 21, 2009
Bombardier Service Bulletin 84-28-05	Original	June 28, 2006
Bombardier Service Bulletin 84-28-07	Original	August 1, 2008
Bombardier Service Bulletin 84-57-09	B	September 3, 2008

Issued in Renton, Washington, on June 10, 2011.

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

2011-13-07 Dassault Aviation: Amendment 39-16730. Docket No. FAA-2011-0259; Directorate Identifier 2010-NM-196-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective July 27, 2011.

Affected ADs

(b) This AD supersedes AD 2010-02-02, Amendment 39-16173.

Applicability

(c) This AD applies to Dassault Aviation Model FALCON 7X airplanes, certificated in any category, all serial numbers.

Subject

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

Reason

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

> Several occurrences of untimely radio-altimeter lock-up have been reported, where the failed radio-altimeter indicated a negative distance to the ground despite the aircraft was flying at medium or high altitude.
>
> A locked radio-altimeter 1 leads to untimely inhibition of warnings that could be displayed along with certain abnormal conditions while the avionic system switches into landing mode during altitude cruise.
>
> * * * * *
>
> [Untimely radio altimeter lock-up] may cause the crew to be unaware of possible system failures that could require urgent crew's actions.
>
> * * * * *

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 2010-02-02, With Revised Affected Airplanes

(g) For airplanes on which modification M0566 or Dassault Service Bulletin Falcon 7X-100 has not been accomplished: Within 14 days after January 28, 2010 (the effective date of AD 2010-02-02),

revise the Limitations Section of the Dassault Falcon 7X Airplane Flight Manual (AFM) to include the following statement. This may be done by inserting a copy of this AD in the AFM.

"If radio-altimeter 1 lock-up conditions occur in flight, power off radio-altimeter 1, in accordance with the instructions of Falcon 7X AFM procedure 3-140-65.

Dispatch of the airplane with any radio-altimeter inoperative is prohibited."

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

New Requirements of This AD

(h) For airplanes on which M0566 or Dassault Service Bulletin Falcon 7X-100 has been accomplished: Within 14 days after the effective date of this AD, revise the Limitations Section of the Dassault Falcon 7X AFM to include the following statement. This may be done by inserting a copy of this AD in the AFM. Doing this revision terminates the requirements of paragraph (g) of this AD.

"If radio-altimeter 1 lock-up conditions occur in flight, revert to the correct radio-altimeter output, in accordance with the instructions of Falcon 7X AFM procedure 3-140-65B and 3-140-70A.

Dispatch of the airplane with any radio-altimeter inoperative is prohibited."

Note 2: When a statement identical to that in paragraph (h) of this AD has been included in the general revisions of the AFM, the general revisions may be inserted into the AFM, and the copy of this AD may be removed from the AFM.

FAA AD Differences

Note 3: This AD differs from the MCAI and/or service information as follows: No differences.

Other FAA AD Provisions

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

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

Related Information

(j) Refer to MCAI European Aviation Safety Agency (EASA) Airworthiness Directive 2009-0208R1, dated June 2, 2010, for related information.

Material Incorporated by Reference

(k) None.

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

2011-13-08 Bombardier, Inc.: Amendment 39-16731. Docket No. FAA-2011-0260; Directorate Identifier 2010-NM-242-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective August 1, 2011.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes having serial numbers (S/Ns) 4001 through 4304 inclusive; certificated in any category.

Subject

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

Reason

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

> Several reports have been received on the elevator power control units (PCUs) where the shaft (tailstock) swaged bearing liners had shown a higher than normal rate of wear. Investigation revealed that the excessive wear was due to the paint contamination between the bearing roller and bearing liner. The bearing paint contamination is known to be abrasive and could seize the bearing.
>
> This condition, if not corrected, could lead to excessive airframe vibrations and difficulties in aircraft pitch control.

* * * * *

The unsafe condition is loss of controllability.

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.

Free-Play Check and Corrective Actions

(g) At the applicable time specified in paragraph (g)(1) or (g)(2) of this AD: Perform a free-play check for any shaft swaged bearing having part number (P/N) MS14103-7 that is installed in the

tailstock end of each elevator PCU (three PCUs per elevator surface), having P/Ns 390600-1007 and 390600-1009, in accordance with paragraph 3.B., Part A, of Bombardier Service Bulletin 84-27-52, dated May 25, 2010.

(1) For airplanes that have accumulated 8,000 or more total flight hours as of the effective date of this AD: Within 2,000 flight hours after the effective date of this AD.

(2) For airplanes that have accumulated less than 8,000 total flight hours as of the effective date of this AD: Within 6,000 flight hours after the effective date of this AD or before the accumulation of 10,000 total flight hours, whichever occurs first.

(h) If, during the check required by paragraph (g) of this AD,
the bearing free-play is within the limits specified in Bombardier Service Bulletin 84-27-52, dated May 25, 2010, no further action is required by this AD.

(i) If, during the check required by paragraph (g) of this AD, the bearing free-play exceeds the limits specified in Bombardier Service Bulletin 84-27-52, dated May 25, 2010: Before further flight, replace the elevator PCU with a serviceable one, in accordance with paragraph 3.B., Part B, of Bombardier Service Bulletin 84-27-52, dated May 25, 2010.

FAA AD Differences

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

Other FAA AD Provisions

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York ACO, ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

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

Related Information

(k) Refer to MCAI Canadian Airworthiness Directive CF-2010-28, dated August 20, 2010; and Bombardier Service Bulletin 84-27-52, dated May 25, 2010; for related information.

Material Incorporated by Reference

(l) You must use Bombardier Service Bulletin 84-27-52, dated May 25, 2010, to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For service information identified in this AD, contact 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 June 14, 2011.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2011-13-09 Airbus: Amendment 39-16732. Docket No. FAA-2009-1212; Directorate Identifier 2008-NM-167-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective August 1, 2011.

Affected ADs

(b) This AD supersedes AD 2007-05-08, Amendment 39-14969.

Applicability

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

Subject

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

Reason

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

* * * * *

> The airworthiness limitations applicable to the Certification Maintenance Requirements (CMR) are given in Airbus A330 ALS Part 3, which is approved by the European Aviation Safety Agency (EASA).
>
> The revision 03 of Airbus A330 ALS Part 3 introduces more restrictive maintenance requirements and/or airworthiness limitations. Failure to comply with this revision constitutes an unsafe condition.

* * * * *

The unsafe condition is safety-significant latent failures that would, in combination with one or more other specific failures or events, result in a hazardous or catastrophic failure condition.

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

structure. The FAA has provided guidance for this determination in Advisory Circular (AC) 25-1529-1A.

Restatement of Requirements of AD 2007-05-08, With Requirements for Model A340 Airplanes Removed

Revise the Airworthiness Limitations Section (ALS) of the Instructions for Continued Airworthiness

(f) Unless already done: Within 90 days after April 9, 2007 (the effective date of AD 2007-05-08), revise the Airworthiness Limitations section of the Instructions for Continued Airworthiness by incorporating Airbus A330 Certification Maintenance Requirements, Document 955.2074/93, Issue 19, dated March 22, 2006. Accomplish the actions specified in Airbus A330 Certification Maintenance Requirements, Document 955.2074/93, Issue 19, dated March 22, 2006, at the times specified in Airbus A330 Certification Maintenance Requirements, Document 955.2074/93, Issue 19, dated March 22, 2006, and in accordance with Airbus A330 Certification Maintenance Requirements, Document 955.2074/93, Issue 19, dated March 22, 2006, except as provided by paragraphs (f)(1) and (f)(2) of this AD.

(1) The associated interval for any new task is to be counted from April 9, 2007.

(2) The associated interval for any revised task is to be counted from the previous performance of the task.

New Requirements of This AD

Revise the Maintenance Program

(g) Unless already done, within 90 days of the effective date of this AD: Revise the maintenance program which ensures the continuing airworthiness of each operated airplane by incorporating Airbus A330 ALS, Part 3–Certification Maintenance Requirements, Revision 03, dated July 29, 2010. Within the times specified in the Airbus A330 ALS, Part 3–Certification Maintenance Requirements, Revision 03, dated July 29, 2010, comply with all applicable maintenance requirements and associated airworthiness limitations included in Airbus A330 ALS, Part 3–Certification Maintenance Requirements, Revision 03, dated July 29, 2010, except as provided by paragraphs (h) and (i) of this AD. Doing this revision terminates the requirements of paragraph (f) of this AD for that airplane only.

Exceptions to the Certification Maintenance Requirements (CMR) Tasks

(h) At the latest of the times specified in paragraph (h)(1), (h)(2), or (h)(3) of this AD: Do the first accomplishment of Airbus A330 CMR Task 213100-00001-2-C, Pressure Control Monitoring, of Airbus A330 ALS, Part 3–Certification Maintenance Requirements, Revision 03, dated July 29, 2010.

(1) Before the accumulation of 48,000 total flight hours.

(2) Within 48,000 flight hours after the most recent accomplishment of Airbus A330 Maintenance Review Board Report (MRBR) Task 21.31.00/05.

(3) Within three months after the effective date of this AD.

(i) At the latest of the times specified in paragraph (i)(1), (i)(2), or (i)(3) of this AD: Do the first accomplishment of Airbus A330 CMR Tasks 242000-00005-1-C, AC Generation; 243000-00001-1-C, DC Generation; and 243000-00002-1-C, DC Generation; of Airbus A330 ALS, Part 3–Certification Maintenance Requirements, Revision 03, dated July 29, 2010.

(1) Before the accumulation of 12,000 total flight hours.

(2) Within 12,000 flight hours after the most recent accomplishment of Airbus A330 MRBR Task 24.20.00/17, 24.30.00/04, or 24.30.00/05 respectively.

(3) Within three months after the effective date of this AD.

No Alternative Inspections or Intervals

(j) After accomplishing the action required by paragraph (g) of this AD, no alternative inspections or inspection intervals may be used, other than those specified in Airbus A330 ALS, Part 3–Certification Maintenance Requirements, Revision 03, dated July 29, 2010, unless the inspections or intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (k)(1) 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

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, ANM-116, 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. Send information to ATTN: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1138; fax (425) 227-1149. Before using any approved AMOC, 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 European Aviation Safety Agency (EASA) Airworthiness Directives 2006-0224, dated July 27, 2006, and 2010-0264, dated December 20, 2010; Airbus A330 Certification Maintenance Requirements, Document 955.2074/93, Issue 19, dated March 22, 2006; and Airbus A330 ALS, Part 3–Certification Maintenance Requirements, Revision 03, dated July 29, 2010; for related information.

Material Incorporated by Reference

(m) You must use Airbus A330 Certification Maintenance Requirements, Document 955.2074/93, Issue 19, dated March 22, 2006; and Airbus A330 ALS, Part 3–Certification Maintenance Requirements, Revision 03, dated July 29, 2010; as applicable; to do the actions required by this AD, unless the AD specifies otherwise. The revision level of Airbus A330 ALS, Part 3–Certification Maintenance Requirements, Revision 03, dated July 29, 2010, is identified only on the title page of the document; the revision date of this document is not identified on the title page.

(1) The Director of the Federal Register approved the incorporation by reference of Airbus A330 ALS, Part 3–Certification Maintenance Requirements, Revision 03, dated July 29, 2010, 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 A330 Certification Maintenance Requirements, Document 955.2074/93, Issue 19, dated March 22, 2006; on April 9, 2007 (72 FR 9658, March 5, 2007).

(3) 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.

(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 June 14, 2011.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.

2011-13-10 Learjet Inc.: Amendment 39-16733; Docket No. FAA-2010-0802; Directorate Identifier 2009-NM-256-AD.

Effective Date

(a) This airworthiness directive (AD) is effective August 1, 2011.

Affected ADs

(b) This AD supersedes AD 2009-11-13, Amendment 39-15923.

Applicability

(c) This AD applies to Learjet Inc. Model 45 airplanes; certificated in any category; serial numbers 45-005 through 45-405 inclusive, and 45-2001 through 45-2126 inclusive.

Subject

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

Unsafe Condition

(e) This AD results from reports of chafed hydraulic tubes in the left-hand engine. The Federal Aviation Administration is issuing this AD to prevent chafed hydraulic tubes in the left-hand engine and consequent hydraulic tube failure and uncontrolled loss of flammable fluid within the engine cowling, which could result in a fire in the engine nacelle and 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 2009-11-13

Repetitive Inspections: Case Drain Tube

(g) For airplanes having serial numbers identified in Table 1 of this AD: Within 50 flight hours after June 17, 2009 (the effective date of AD 2009-11-13), do a detailed inspection for chafing and other damage of the case drain tube from the hydraulic pump case installed on the left-hand engine, in accordance with the applicable service bulletin identified in Table 1 of this AD. If any damage is found, before further flight, reposition or replace the tube, as applicable, in accordance with the Accomplishment Instructions of the applicable service bulletin identified in Table 1 of this AD. Repeat the inspection thereafter at intervals not to exceed 150 flight hours until the modification required by paragraph (l) of this AD is done.

Table 1–Service Bulletins for Inspections

For –	Use –
Serial numbers 45-005 through 45-313 inclusive (commonly referred to as “M45” airplanes)	Bombardier Alert Service Bulletin A45-29-15, dated December 26, 2006.
Serial numbers 45-2001 through 45-2063 inclusive (commonly referred to as “M40” airplanes)	Bombardier Alert Service Bulletin A40-29-03, dated December 26, 2006.

Note 1: 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."

Repetitive Inspections: Nacelle Tubing

(h) Within 50 flight hours after June 17, 2009, do a detailed inspection for discrepancies of the left engine's nacelle tubing, in accordance with the applicable temporary revision (TR) identified in Table 2 of this AD. Discrepancies include damaged tubing, and inadequate clearance between any unsupported section of the tube or other tubing and surrounding components. If any discrepancy is found, before further flight, adjust the tubing and clamping or replace the tubing, as applicable, in accordance with the applicable TR identified in Table 2 of this AD. Repeat the inspection thereafter at intervals not to exceed 150 flight hours until the modification required by paragraph (l) of this AD is done.

Table 2–TRs for inspections

For –	Use –
Serial numbers 45-2001 through 45-4000 inclusive (commonly referred to as “M40” airplanes)	Learjet 40 TR 71-1, dated April 28, 2009, to the Learjet 40 Maintenance Manual MM-105.
Serial numbers 45-002 through 45-2000 inclusive (commonly referred to as “M45” airplanes)	Learjet 45 TR 71-1, dated April 28, 2009, to the Learjet 45 Maintenance Manual MM-104.

Concurrent Inspections: Fluid Leakage

(i) Concurrently with each inspection required by paragraph (h) of this AD, do a detailed inspection for evidence of engine oil, hydraulic fluid, or fuel leakage within the left engine accessory compartment, in accordance with the applicable maintenance manual section identified in Table 3 of this AD. If there is evidence of leakage: Before further flight, remove each plumbing clamp within the inspection areas specified in paragraphs (g) and (h) of this AD, and clean and remove all evidence of fluid leakage.

Table 3–Maintenance Manual Sections for Inspections

For –	Use –
Serial numbers 45-002 through 45-2000 inclusive (commonly referred to as “M45” airplanes)	Section 71-00-00, “Powerplant – Maintenance Practices,” and Section 71-00-01, “Engine – Maintenance Practices,” of the Learjet 45 Maintenance Manual MM-104, Revision 47, dated March 30, 2009.

Serial numbers 45-2001 through 45-4000 inclusive (commonly referred to as “M40” airplanes)	Section 71-00-01, “Engine – Maintenance Practices,” of the Learjet 40 Maintenance Manual MM-105, Revision 15, dated March 30, 2009.

Additional Corrective Action for Fluid Leakage and Inadequate Clearance

(j) If evidence of fluid leakage was found during any inspection required by paragraph (i) of this AD, or if inadequate clearance was found during any action required by paragraph (g) or (h) of this AD: Before further flight, replace each clamp associated with the fluid leakage or inadequate clearance with a new clamp, in accordance with the applicable maintenance manual identified in Table 3 of this AD.

Parts Installation

(k) As of June 17, 2009, no person may re-install, on any airplane, any plumbing clamp that has been removed in accordance with the requirements of paragraphs (g), (h), (i), or (j) of this AD.

New Requirements of This AD

Terminating Action

(l) Within 300 flight hours or 12 months after the effective date of this AD, whichever occurs first, do the actions specified in paragraphs (l)(1) and (l)(2) of this AD, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 40-71-04 (Model 45, serial numbers 45-2001 through 45-2126) or 45-71-7 (Model 45, serial numbers 45-005 through 45-405), both dated December 7, 2009, as applicable. Accomplishment of the requirements of paragraphs (l) and (m), as applicable, of this AD terminates the requirements of paragraphs (g), (h), (i), and (j) of this AD.

(1) Replace the left engine fuel and hydraulic tubing and install a tubing support channel using new parts.

(2) Do the inspections specified in paragraphs (l)(2)(i), (l)(2)(ii), (l)(2)(iii), and (l)(2)(iv) of this AD and all applicable corrective actions. Do all applicable corrective actions before further flight.

(i) A general visual inspection for galling of the fuel supply manifold assembly;

(ii) A general visual inspection for minimum clearance between the firewall fuel supply tube assembly and the engine firewall cutout;

(iii) A general visual inspection for minimum clearance between the lower nacelle hydraulic tube and hose assemblies; and

(iv) A general visual inspection for minimum clearance between the lower nacelle fuel tubes and flexible hoses.

(m) For airplanes having serial numbers 45-005 through 45-319, and 45-321, as identified in Bombardier Service Bulletin 45-71-5, dated February 13, 2007; and for airplanes having serial numbers 45-2001 through 45-2069, as identified in Bombardier Service Bulletin 40-71-02, dated February 13, 2007: Before or concurrently with accomplishing the requirements of paragraph (l) of this AD, do the applicable actions specified in paragraphs (m)(1), (m)(2), (m)(3), (m)(4), and (m)(5) of this AD, depending on airplane serial number and configuration, as specified in, and in accordance with, the Accomplishment Instructions of Bombardier Service Bulletin 45-71-5 (Model 45, serial numbers 45-005 through 45-319, and 45-321), dated February 13, 2007; or Bombardier Service Bulletin 40-71-02 (Model 45, serial numbers 45-2001 through 45-2069), dated February 13, 2007; as applicable. Do all applicable corrective actions before further flight. If, during any inspection required by paragraph (m)(3), (m)(4), or (m)(5) of this AD, it is determined that clearances are not met, before further flight, replace the tubing in accordance with the Accomplishment Instructions of

Bombardier Service Bulletin 45-71-5, dated February 13, 2007; or Bombardier Service Bulletin 40-71-02, dated February 13, 2007; as applicable.

(1) Change the routing and clamping configuration of the engine and alternator wire harnesses and the starter/generator wire bundles.

(2) Do a detailed inspection for chafing damage of specific hydraulic tubes located within the left engine nacelle between the adjacent fuel tubes and to determine if there is interference between the fuel tubing and hydraulic tubing; secure hydraulic tubes with additional clamps, inspect adjacent fuel tubing for interference with the hydraulic tubing, replace the left engine hydraulic pump case drain tube on certain airplanes, and do all applicable corrective actions.

(3) Do a general visual inspection for clearance between the left engine hydraulic tubing with adjacent tubing, structure, and other components.

(4) Do a general visual inspection for clearance between the wire harnesses and the hydraulic and fuel tubing on the left engine.

(5) Do a general visual inspection for clearance between the wire harnesses and the hydraulic and fuel tubing on the right engine.

Alternative Methods of Compliance (AMOCs)

(n)(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.

(3) AMOCs approved previously in accordance with AD 2009-11-13, amendment 39-15923, are approved as AMOCs for the corresponding provisions of this AD.

Related Information

(o) For more information about this AD, contact James Galstad, Aerospace Engineer, Systems and Propulsion Branch, ACE-116W, FAA, Wichita ACO, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; phone: 316-946-4135; fax: 316-946-4107; e-mail: James.Galstad@faa.gov.

Material Incorporated by Reference

(p) You must use the service information contained in Table 4 of this AD, as applicable, to do the actions required by this AD, unless the AD specifies otherwise.

Table 4–All Material Incorporated by Reference

Document	Revision	Date
Bombardier Alert Service Bulletin A45-29-15	Original	December 26, 2006
Bombardier Alert Service Bulletin A40-29-03	Original	December 26, 2006
Learjet 40 Temporary Revision 71-1 to the Learjet Maintenance Manual MM-105	Original	April 28, 2009
Learjet 45 Temporary Revision 71-1 to the Learjet Maintenance Manual MM-104	Original	April 28, 2009

Sections 71-00-00 and 71-00-01 of the Learjet 45 Maintenance Manual MM-104	47	March 30, 2009
Section 71-00-01 of the Learjet 40 Maintenance Manual MM-105	15	March 30, 2009
Bombardier Service Bulletin 40-71-04	Original	December 7, 2009
Bombardier Service Bulletin 45-71-7	Original	December 7, 2009
Bombardier Service Bulletin 45-71-5	Original	February 13, 2007
Bombardier Service Bulletin 40-71-02	Original	February 13, 2007

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

Table 5–New Material Incorporated by Reference

Document	Date
Bombardier Service Bulletin 40-71-04	December 7, 2009
Bombardier Service Bulletin 45-71-7	December 7, 2009
Bombardier Service Bulletin 45-71-5	February 13, 2007
Bombardier Service Bulletin 40-71-02	February 13, 2007

(2) The Director of the Federal Register previously approved the incorporation by reference of the service information contained in Table 6 of this AD on June 17, 2009 (74 FR 26288, June 2, 2009).

Table 6–Material Previously Incorporated by Reference

Document	Revision	Date
Sections 71-00-00 and 71-00-01 of the Learjet 45 Maintenance Manual MM-104	47	March 30, 2009
Section 71-00-01 of the Learjet 40 Maintenance Manual MM-105	15	March 30, 2009
Bombardier Alert Service Bulletin A40-29-03	Original	December 26, 2006
Bombardier Alert Service Bulletin A45-29-15	Original	December 26, 2006
Learjet 40 Temporary Revision 71-1 to the Learjet Maintenance Manual MM-105	Original	April 28, 2009
Learjet 45 Temporary Revision 71-1 to the Learjet Maintenance Manual MM-104	Original	April 28, 2009

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

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

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

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

2011-13-11 Airbus: Amendment 39-16734. Docket No. FAA-2011-0573; Directorate Identifier 2011-NM-082-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective July 12, 2011.

Affected ADs

(b) This AD supersedes AD 2007-06-18, Amendment 39-14999.

Applicability

(c) This AD applies to all 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.

Subject

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

Reason

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

> Some operators reported slow operation of the MLG [main landing gear] door opening/closing sequence, leading to the generation of ECAM [Electronic Centralised Aircraft Monitoring] warnings during the landing gear retraction or extension sequence.
>
> * * * * *
>
> This condition, if not corrected, could prevent the full extension and/or downlocking of the MLG, possibly resulting in MLG collapse during landing or rollout and consequent damage to the aeroplane and injury to occupants.
>
> * * * * *
>
> After in-service introduction of the new MLG door actuator, P/N 114122012, several operators reported failures of internal parts of the MLG door actuator. Investigations confirmed that these failures could result in slow extension of the actuator rod, delaying the MLG Door operation, or possibly stopping just before the end of the stroke, preventing the door to reach the fully open position.
>
> * * * * *

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 2007-06-18, With No Changes

Repetitive Inspections/Replacement

(g) At the time specified in paragraph (g)(1) or (g)(2) of this AD, as applicable: Do a general visual inspection of the operation of the MLG door opening sequence to determine if a defective actuator is installed by doing all the applicable actions, including replacing the door actuator, as applicable, specified in the Accomplishment Instructions of Airbus Service Bulletin A320-32-1309, Revision 01, dated June 19, 2006. Do all applicable replacements before further flight. Repeat the inspection thereafter at intervals not to exceed 900 flight cycles. Accomplishing the actions before April 27, 2007 (the effective date of AD 2007-06-18) in accordance with Airbus Service Bulletin A320-32-1309, dated March 7, 2006, is acceptable for compliance with the corresponding requirements in this paragraph. Doing the inspection required by paragraph (l) of this AD terminates the requirements of this paragraph.

(1) For airplanes on which a record of the total number of flight cycles on the MLG door actuator is available: Before the accumulation of 3,000 total flight cycles on the MLG door actuator, or within 800 flight cycles after April 27, 2007, whichever is later.

(2) For airplanes on which a record of the total number of flight cycles on the MLG door actuator is not available: Within 800 flight cycles after April 27, 2007.

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 enhance visual access to all exposed 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."

No Reporting/Parts Return Required

(h) Although the Accomplishment Instructions of Airbus Service Bulletin A320-32-1309, Revision 01, dated June 19, 2006, specify submitting certain information to the manufacturer and sending defective actuators back to the component manufacturer for investigation, this AD does not include those requirements.

New Requirements of This AD

Revise the Airplane Flight Manual (AFM)

(i) Within 14 days after the effective date of this AD, revise the Emergency Procedure Section of the airplane flight manual (AFM) to incorporate the following information. This may be done by inserting a copy of this AD into the AFM.

> " • If ECAM triggers the "L/G GEAR NOT DOWNLOCKED" warning, apply the following procedure:
>
> Recycle landing gear.

- If unsuccessful after 2 min:

Extend landing gear by gravity. Refer to ABN-32 L/G GRAVITY EXTENSION."

Note 2: When a statement identical to that in paragraph (i) of this AD has been included in the Emergency Procedure 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.

Repetitive Checks

(j) Within 14 days after the effective date of this AD or before the accumulation of 800 total flight cycles, whichever occurs later, check the post flight report (PFR) for centralized fault display system (CFDS) messages triggered within the last 8 days, in accordance with paragraph 4.2.1 of Airbus All Operators Telex (AOT) A320-32A1390, dated February 10, 2011. Repeat the check thereafter at intervals not to exceed 8 days or 5 flight cycles, whichever occurs later. If done in accordance with a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, the use of an alternative method to check the PFR for CFDS messages (e.g., AIRMAN) is acceptable in lieu of this check if the messages can be conclusively determined from that method.

On-Condition Inspection

(k) If, during any check required by paragraph (j) of this AD, a pair of specific CFDS messages specified in paragraph 4.2.1 of Airbus AOT A320-32A1390, dated February 10, 2011, has been triggered by both landing gear control and indication units (LGCIU) for the same flight, before further flight, inspect the door opening sequence of the affected doors of the MLG for discrepancies (i.e., if any condition specified in steps (a) through (d) of paragraph 4.2.2 of Airbus AOT A320-32A1390, dated February 10, 2011, is not met), in accordance with paragraph 4.2.2 of Airbus AOT A320-32A1390, dated February 10, 2011.

Repetitive Inspections

(l) At the applicable time specified in paragraph (l)(1) or (l)(2) of this AD: inspect the door opening sequence of the left hand and right hand doors of the MLG for discrepancies (i.e., if any condition specified in steps (a) through (d) of paragraph 4.2.2 of Airbus AOT A320-32A1390, dated February 10, 2011, is not met), in accordance with the instructions of paragraph 4.2.2 of Airbus AOT A320-32A1390, dated February 10, 2011. Repeat the inspection thereafter at intervals not to exceed 425 flight cycles. Doing this inspection terminates the requirements of paragraph (g) of this AD.

(1) For airplanes on which an inspection required by paragraph (g) of this AD has been done as of the effective date of this AD: Within 800 flight cycles after doing the most recent inspection required by paragraph (g) of this AD, or within 100 flight cycles after the effective date of this AD, whichever occurs later.

(2) For airplanes on which an inspection required by paragraph (g) of this AD has not been done as of the effective date of this AD: Within 800 flight cycles after the effective date of this AD.

Replacement

(m) If any discrepancy (i.e., if any condition specified in steps (a) through (d) of paragraph 4.2.2 of Airbus AOT A320-32A1390, dated February 10, 2011, is not met) is found during any inspection required by paragraph (k) or (l) of this AD, before further flight, replace the affected MLG door actuator with a new MLG door actuator, in accordance with the instructions of Airbus AOT A320-32A1390, dated February 10, 2011.

(n) Replacement of the MLG door actuator as required by paragraph (m) of this AD is not a terminating action for the repetitive actions required by paragraphs (j) and (l) of this AD.

FAA AD Differences

Note 3: This AD differs from the MCAI and/or service information as follows:

(1) Paragraph (6) of European Aviation Safety Agency (EASA) AD 2011-0069, dated April 18, 2011, specifies a compliance time of 800 flight cycles after the effective date for all airplanes for the initial inspection of the door opening sequence. This AD specifies a compliance time of 800 flight cycles after the effective date of this AD for airplanes on which the existing inspections (required by AD 2007-06-18) of the door opening sequence have not been done, and a compliance time of within 800 flight cycles since the most recent inspection or within 100 flight cycles after the effective date of this AD, whichever occurs later, for airplanes on which the existing inspections of the door opening sequence have been done.

(2) EASA AD 2011-0069, dated April 18, 2011, specifies MLG door actuators having part number (P/N) 114122006, P/N 114122007, P/N 114122009, P/N 114122010, P/N 114122011, or P/N 114122012, in its applicability. This AD retains the existing applicability of AD 2007-06-18 of all airplanes because all airplanes have one of the affected part numbers.

Other FAA AD Provisions

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. 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. As of the effective date of this AD, AMOCs approved previously in accordance with AD 2007-06-18, are not approved as AMOCs with 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) with the MLG extended, provided that no recycle of the MLG is allowed during flight.

Related Information

(p) Refer to MCAI EASA 2011-0069, dated April 18, 2011; Airbus Service Bulletin A320-32-1309, Revision 01, dated June 19, 2006; and Airbus AOT A320-32A1390, dated February 10, 2011; for related information.

Material Incorporated by Reference

(q) You must use Airbus All Operators Telex A320-32A1390, dated February 10, 2011; and Airbus Service Bulletin A320-32-1309, Revision 01, dated June 19, 2006; 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 All Operators Telex A320-32A1390, dated February 10, 2011, under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The Director of the Federal Register previously approved the incorporation by reference of Airbus Service Bulletin A320-32-1309, Revision 01, dated June 19, 2006, on April 27, 2007 (72 FR 13681, March 23, 2007).

(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 June 16, 2011.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.