



**FEDERAL AVIATION ADMINISTRATION  
AIRWORTHINESS DIRECTIVES  
LARGE AIRCRAFT**

**BIWEEKLY 2009-23**

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## LARGE AIRCRAFT

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

### Biweekly 2009-01

2008-25-05	S 93-01-15	McDonnell Douglas	See AD
2008-26-04	S 2007-23-13	Cessna Aircraft Company	560
2008-26-06		Rolls-Royce Corporation	Engine: AE 3007A
2008-26-07		McDonnell Douglas	See AD
2008-26-08		Saab AB, Saab Aerosystems	340A (SAAB/SF340A) and SAAB 340B
2008-26-09		Bombardier, Inc	CL-600-2B19 (Regional Jet Series 100 & 440)
2009-01-01		CFM International, S. A	Engine: See AD

### Biweekly 2009-02

No Large Aircraft ADs were issued during Biweekly 2009-02.

### Biweekly 2009-03

2009-01-02		Boeing	737-600, -700, -700C, -800 and -900
2009-01-03		Bombardier, Inc.	DHC-8-400, DHC-8-401, and DHC-8-402
2009-01-04		Airbus	A318, A319, A320, and A321
2009-01-07		Bombardier, Inc	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D24 (Regional Jet Series 900)
2009-01-10		Bombardier, Inc	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705), CL-600-2D24 (Regional Jet Series 900)
2009-02-03		Lycoming engines, See AD	See AD

### Biweekly 2009-04

No Large Aircraft ADs were issued during Biweekly 2009-04.

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### Biweekly 2009-05

2008-18-02	S 2004-14-07	BAE Systems	Jetstream 4101
2008-24-51		Boeing	737-600, -700, -700C, -800, and -900
2009-01-05		Embraer	EMB-145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP
2009-01-06	S 2005-15-16	328 Support Services GmbH	328-300
2009-01-08	S 98-16-11	Airbus	A300, A310, A300-600
2009-01-09	S 2000-26-14	Airbus	A310
2009-02-01		Construcciones Aeronauticas, S.A.	C-212-DF
2009-02-04		Airbus	A300-600
2009-02-05		Boeing	777-200, -200LR, -300, and -300E
2009-02-07	S 98-17-12	BAE Systems	Jetstream 4101
2009-02-09		BAE Systems	BAe 146-100A, -200A, and -300A, Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2009-02-10	S 2008-04-22	Fokker Services	F.28 Mark 0070 and 0100
2009-02-11		Bombardier Inc.	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D24 (Regional Jet Series 900)
2009-03-01		Learjet	55, 55B, and 55C
2009-03-02	S 2004-05-20	McDonnell Douglas	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
2009-03-03		McDonnell Douglas	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-9-33F, DC-9-34, DC-9-34F, DC-9-32F (C-9A, C-9B), DC-9-41, and DC-9-51
2009-04-02		Pratt & Whitney	Engine: PW4090 and PW4090-3
2009-04-03		Rolls-Royce Corporation	Engine: AE 3007A1E and AE 1107C
2009-04-06	S 2004-16-09	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
2009-04-07		Airbus	A330-200 and -300; and A340-200, -300, -500, and -600, A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343, A340-211, -212, -213, -311, -312, -313, -541, and -642
2009-04-10	S 2002-07-12	General Electric Company	CF6-80A, CF6-80C2, and CF6-80E1
2009-04-11		Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440)
2009-04-12	S 2001-26-19	Boeing	767-200, -300, and -400ER
2009-04-13		Rolls-Royce Deutschland Ltd & Co KG	Engine: BR700-715A1-30, BR700-715B1-30, and BR700-715C1-30
2009-04-15	S 93-08-04	Boeing	737-100, -200, -200C, -300, -400, and -500
2009-04-16	S 2008-10-15	Boeing	747-100, 747-100B, 747-200B, 747-200C, 747-200F, 747-300, 747SR, and 747SP
2009-04-17		General Electric Company	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
2009-05-02		General Electric Company	Engine: See AD
2009-05-03		Boeing	727, 727C, 727-100, 727-100C, 727-200, and 727-200F
2009-05-04		Bombardier Inc	CL-215-6B11 (CL-215T variant), CL-215-6B11 (CL-415 variant)

### Biweekly 2009-06

2009-02-06		Boeing	737-300, -400, and -500
2009-05-10		Airbus	A300, A340-200 and A340-300, A330
2009-05-11	S 2008-19-04	Boeing	777-200 and -300
2009-06-12	S 2008-01-04	Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440)

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### Biweekly 2009-07

2009-05-08		Trimble or Freeflight Systems	Appliance: Global positioning system
2009-06-02		Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747SR, and 747SP
2009-06-03		Viking Air Limited	DHC-7-1, DHC-7-100, DHC-7-101, DHC-7-102, and DHC-7-103
2009-06-04		Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440)
2009-06-05		Bombardier, Inc.	CL-600-1A11 (CL-600), CL-600-2A12 (CL-601), CL-600-2B16 (CL-601-3A & CL-601-3R), CL-600-2B16 (CL-604)
2009-06-06	S 2006-10-11 and 2005-15-10	Airbus	A310 and A300-600
2009-06-08		Boeing	767-200, -300, -300F, and -400ER
2009-06-09		328 Support Services GMBH	328-100
2009-06-10		Boeing	727-100 and 727-200
2009-06-11		Embraer	ERJ 190-100 STD, -100 LR, -100 IGW, -100ECJ, -200 STD, -200 LR, and -200 IGW
2009-06-13		Airbus	A321-131
2009-06-14		Fokker Services B.V	F.27 Mark 050
2009-06-15		Fokker Services B.V	F.27 Mark 050
2009-06-16		Embraer	ERJ 170-100 LR, -100 SE, -100 STD, -100 SU, -200 LR, -200 STD, and -200 SU airplanes; and Model ERJ 190-100 IGW, -100 LR, -100 STD, -100 ECJ, -200 IGW, -200 LR, and -200 STD
2009-06-17		Bombardier	CL-600-2B19 (Regional Jet Series 100 & 440)
2009-06-18		Bombardier, Inc	CL-600-2C10 (Regional Jet Series 700, 701, & 702)
2009-06-19		Boeing	767-200 and 767-300
2009-06-20		Boeing	757-200, 757-200PF, and 757-300
2009-06-21		Bombardier	DHC-8-102, -103, -106, -201, -202, -301, -311, and -315, DHC-8-400, -401 and -402
2009-06-22		Airbus	A318-111, -112, -121, and -122; A319-111, -112, -113, -114, -115, -131, -132, and -133; A320-111, -211, -212, -214, -231, -232, -233; and A321-111, -112, -131, -211, -212, -213, -231, and -232
2009-07-01		Rolls-Royce Deutschland Ltd & Co KG	Engine: BR700-715A1-30, BR700-715B1-30, and BR700-715C1-30
2009-07-02	S 96-03-07	Hawker Beechcraft	400, 400A, MU-300-10, MU-300
2009-07-03		General Electric Company	Engine: <b>CF6-80C2 and CF6-80E1</b>

### Biweekly 2009-08

2009-04-18		Pratt & Whitney	Engine: JT9D-7, -7A, -7AH, -7H, -7F, and -7J
2009-07-04		McDonnell Douglas	Rotorcraft: MD-90-30
2009-07-05		ATR-GIE Avions de Transport Régional	ATR72-101, -102, -201, -202, -211, -212, and -212A
2009-07-06		McDonnell Douglas	717-200
2009-07-07		General Electric Company	Engine: CF6-80A, CF6-80A1, CF6-80A2, and CF6-80A3
2009-07-10	S 2004-22-05	Boeing	737-300, -400, -500
2009-07-11		General Electric Company	Engine: CF34-1A, -3A, -3A1, -3A2, -3B, and -3B1
2009-07-12	S 2007-07-12	Honeywell, Inc	Navigation computer
2009-08-01		McDonnell Douglas	See AD
2009-08-04		Hawker Beechcraft Corp.	BH.125 series 600A airplanes and Model HS.125 series 700A
2009-08-51	E		

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### Biweekly 2009-09

2009-08-06		General Electric Company	Engine: CF6-80A
2009-08-07		Honeywell International Inc	Engine: ALF502L-2 and ALF502L-2C
2009-09-01		Airbus	A318-111, A318-112, A318-121, A318-122, A319-111, A319-112, A319-113, A319-114, A319-115, A319-131, A319-132, A319-133, A320-111, A320-211, A320-212, A320-214, A320-231, A320-232, A320-233, A321-111, A321-112, A321-131, A321-211, A321-212, A321-213, A321-231, and A321-232
2009-09-02		Bombardier, Inc	DHC-8-400, DHC-8-401, and DHC-8-402

### Biweekly 2009-10

2009-06-22	C	Airbus	A318-111, -112, -121, and -122; A319-111, -112, -113, -114, -115, -131, -132, and -133; A320-111, -211, -212, -214, -231, -232, -233; and A321-111, -112, -131, -211, -212, -213, -231, and -232
2009-09-05	S 2006-03-10	Airbus	A318-111 and 112; A319-111, -112, -113, -114, -115, -131, -132, and -133; A320-111, -211, -212, -214, -231, -232, and -233; and A321-111, -112, -131, -211, -212, -213, -231, and -232
2009-09-06		Boeing	737-100, -200, -200C, -300, -400, and -500
2009-09-07		Boeing	737-100, -200, -200C, -300, -400, and -500
2009-09-08		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
2009-10-01	S 2007-17-21	Pratt & Whitney	Engine: JT9D-7R4G2, -7R4E1, -7R4E4, and -7R4H1
2009-10-02	S 2005-19-15	BAE Systems	Jetstream 4101
2009-10-03		328 Support Services	328-100 and -300

### Biweekly 2009-11

2009-04-06	S 2004-16-09	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
2009-08-51		Rolls-Royce Corporation	Engine: RRC AE 3007A
2009-10-01	S 2007-17-21	Pratt & Whitney	Engine: JT9D-7R4G2, -7R4E1, -7R4E4, and -7R4H1
2009-10-05		Bombardier, Inc	CL-600-2B19 (Regional Jet series 100 and 440)
2009-10-06		Boeing	747-400 and 747-400D
2009-10-07		Airbus	380-841, -842 and 861
2009-10-08		Pratt & Whitney	Engine: PW2037, PW2037(M), and PW2040
2009-10-10		Bombardier Inc.	CL-600-2C10 (Regional Jet Series 700, 701, & 702), Model CL-600-2D15 (Regional Jet Series 705), Model CL-600-2D24 (Regional Jet Series 900)
2009-10-11		Airbus	A330-300, A340-200, and A340-300
2009-10-12	S 2005-16-06	Boeing	747-100, -100B, -100B SUD, -200B, -200C, -200F, -300, -400F, -400, -400D, 747SP, and 747SR
2009-10-13		Saab AB, Saab Aerosystems	340A and 340B
2009-11-02		CFM International	Engine: CFM56-2, CFM56-3, CFM56-5A, CFM56-5B, CFM56-5C, and CFM56-7B
2009-11-03		Lockheed	382, 382B, 382E, 382F, and 382G

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### Biweekly 2009-12

2009-11-07		BAE Systems	HS 748 series 2A and series 2B
2009-11-08		Airbus	A330-202, -223, -243, -301, -322 and -342
2009-11-09		Airbus	A310-203, A310-204, A310-221, A310-222, A310-304, A310-322, A310-324, and A310-325 airplanes; and Airbus Model A300 B4-601, A300 B4-603, A300 B4-605R, A300 B4-620, A300 B4-622, A300 B4-622R, A300 C4-605R Variant F, A300 F4-605R and A300 F4-622R
2009-11-11		McDonnell Douglas	MD-90-30
2009-11-13		Learjet	45

### Biweekly 2009-13

2009-11-04		Rolls-Royce Corporation	Engine: AE 2100D2, AE 2100D2A, AE 2100D3, and AE 2100J
2009-12-02	S 2007-03-09	Airbus	Model A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, and C4-605R Variant F airplanes; and Model A310
2009-12-03		Boeing	757-200, -200CB, and -300
2009-12-04		Construcciones Aeronauticas, S.A.	C-212-CB, C-212-CC, C-212-CD, C-212-CE, C-212-CF, and C-212-DE
2009-12-05		Boeing	737-300, -400, and -500
2009-12-06		Boeing	737-300, -400, and -500, 737-600, -700, -700C, -800, and -900
2009-12-08		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
2009-12-09		ATR-GIE Avions De Transport Régional	ATR42-200, ATR42-300, and ATR42-320, ATR42-500, ATR72-101, ATR72-201, ATR72-102, ATR72-202, ATR72-211, ATR72-212, and ATR72-212A
2009-12-10	S 2006-12-09	BAE Systems	BAe 146-100A, -200A, and -300A series airplanes; and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2009-12-11		Airbus	A340-541 and -642
2009-12-12		ATR	ATR42-500 and ATR72-212A
2009-12-13		Bombardier, Inc	DHC-8-400, DHC-8-401, and DHC-8-402
2009-13-07		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343

### Biweekly 2009-14

2009-04-18	COR	Pratt & Whitney	Engine: JT9D-7, -7A, -7AH, -7H, -7F, and -7J
2009-13-02	S 98-06-07	Fokker Services B.V	F.28 Mark 0100
2009-13-03		Boeing	747-400 and -400F
2009-13-08		McDonnell Douglas	MD-90-30
2009-13-09		Microturbo SA	Appliance: Auxiliary power units (APU)
2009-13-10		British Aerospace Regional Aircraft	HP.137 Jetstream Mk.1, Jetstream Series 200 and 3101, and Jetstream Model 3201
2009-14-02	S 2002-26-15	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
2009-14-08		General Electric Company	Engine: CF6-80C2B5F

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### Biweekly 2009-15

2009-14-03		Bombardier, Inc.	CL-600-1A11 (CL-600), CL-600-2A12 (CL-601), CL-600-2B16 (CL-601-3A, CL-601-3R), CL-600-2B16 (CL-604)
2009-14-04		Boeing	737-100, -200, -200C, -300, -400, and -500
2009-14-05		Pratt & Whitney	Engine: PW2037, PW2037(M), and PW2040
2009-14-06	S 2007-17-12	Boeing	777
2009-14-07		Dassault Aviation	Mystere-Falcon 20-C5, 20-D5, 20-E5, and 20-F5
2009-14-09		Dassault Aviation	Falcon 2000EX
2009-14-12		Pratt & Whitney Canada Corp	Engine: PW305A and PW305B
2009-15-02		Airbus	A318, A319, A320, and A321
2009-15-03		Bombardier, Inc	BD-700-1A10 and BD-700-1A11
2009-15-04		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343

### Biweekly 2009-16

2008-26-03	COR	<b>Bombardier, Inc</b>	DHC-8-102, DHC-8-103, DHC-8-106, DHC-8-201, DHC-8-202, DHC-8-301, DHC-8-311, and DHC-8-315
2009-11-12	S 2004-14-06	Airbus	A310
2009-15-06		Boeing	707-100 long body, -200, -100B long body, and -100B short body series airplanes; Model 707-300, -300B, -300C, and -400 series airplanes; and Model 720 and 720B
2009-15-07		Airbus	A319-111, -112, -113, -114, -115, -131, -132, and -133; A320-111, -211, -212, -214, -231, -232, and -233; and A321-111, -112, -131, -211, -212, -213, -231, and -232
2009-15-08		BAE Systems	BAe 146-100A, -200A, and -300A series airplanes; and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2009-15-09		Airbus	A380-841, -842, and -861
2009-15-10		Airbus	A330-301, -321, -322, -341, and -342, A340-211, -212, -213, -311, -312, and -313
2009-15-11		Aerospatiale	SN-601 (Corvette)
2009-15-12		Boeing	747-400 and -400D
2009-15-17		Airbus	A330-200, A330-300, A340-200, and A340-300
2009-15-18		Embraer	EMB-120, -120ER, -120FC, -120QC, and -120RT
2009-15-19		BAE Systems	BAe 146-100A and 146-200A

### Biweekly 2009-17

2008-16-09 R1	R 2008-16-09	Short Brothers PLC	SD-3-60
2009-16-01		BAE Systems	Jetstream 4101
2009-16-05		Fokker Services B.V	F.27 Mark 050
2009-16-06		Boeing	767-200, -300, -300F, and -400ER
2009-16-14	S 2005-20-03	Boeing	737-100, -200, -200C, -300, -400, and -500
2009-17-01		Gulfstream Aerospace Corporation	G-IV, GIV-X, GV, GV-SP

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<b>Biweekly 2009-18</b>			
2009-16-07	S 2006-10-17	Boeing	737-600, -700, -700C, -800, and -900
2009-17-02		Saab AB, Saab Aerosystems	SAAB 340A (SAAB/SF340A) and SAAB 340B
2009-17-03		BAE Systems	BAe 146 and Avro 146-RJ
2009-17-04		Airbus	A318-111, -112, -121, and -122; A319-111, -112, -113, -114, -115, -131, -132, and -133; A320-111, -211, -212, -214, -231, -232, -233; and A321-111, -112, -131, -211, -212, -213, -231, and -232
2009-17-05		Honeywell International Inc.	Engine: TPE331-10 and TPE331-11
2009-18-01		CFM International, S.A	Engine: CFM56-5B1/P; -5B2/P; -5B3/P; -5B3/P1; -5B4/P; -5B4/P1; -5B5/P; -5B6/P; -5B7/P; -5B8/P; -5B9/P
2009-18-02		Boeing	767-200, -300, -300F, and -400ER
2009-18-05		Fokker Services B.V	F.27 Mark 050 and F.28 Mark 0100
2009-18-06		Construcciones Aeronauticas, S.A.	CN-235, CN-235-100, CN-235-200, and CN-235-300
2009-18-07	S 2005-20-30	Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-300, 747SP, and 747SR
<b>Biweekly 2009-19</b>			
2009-02-06 R1	R 2009-02-06	Boeing	737-300, -400, and -500
2009-15-19		BAE Systems	BAe 146-100A and 146-200A
2009-18-08	S 2004-03-33	Airbus	See AD
2009-18-09	S 99-20-01	Fokker Services B.V	F.28 Mark 0100, F.28 Mark 0070
2009-18-10	S 2008-17-10	Boeing	707-100 long body, -200, -100B long body, -100B short body, 707-300, -300B, -300C, and -400 series airplanes; and Model 720 and 720B
2009-18-11		Fokker Services	F.28 Mark 0070 and 0100
2009-18-12		Bombardier, Inc	
2009-18-13		Rolls-Royce plc	Engine: RB211 Trent 970-84, 970B-84, 972-84, 972B-84, 977-84, 977B-84, and 980-84
2009-18-14	S 2004-09-16	328 Support Services GmbH	328-100 and 328-300
2009-18-16	S 2006-02-06	Airbus	A310-203, -204, -221, -222, -304, -322, -324 and -325
2009-18-18		ATR-GIE Avions De Transport Régional	ATR42-200, -300, -320, and -500 airplanes and Model ATR72-101, -201, -102, -202, -211, -212, and -212A
2009-18-19		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343, A340-211, -212, -213, -311, -312, and -313
2009-18-20		Airbus	A330-300, A340-200, and A340-300, A330-301, -302, -303, -321, -322, -323, -341, -342, and -343, A340-211, -212, -213, -311, -312, and -313
2009-19-01		Airbus	A300 B2-1C, B2-203, B2K-3C, B4-103, B4-203, and B4-2C
2009-19-02		Boeing	737-600, -700, -700C, -800, -900 and -900ER
<b>Biweekly 2009-20</b>			
2009-18-15	S 87-16-06	Airbus	A300, A310, and A300-600
2009-19-03	S 2009-13-10	British Aerospace Regional Aircraft	HP.137 Jetstream Mk.1, Jetstream Series 200 and 3101, and Jetstream Model 3201
2009-19-04	S 2008-08-01	McCauley Propeller Systems	Propeller: B5JFR36C1101/114GCA-0, C5JFR36C1102/L114GCA-0, B5JFR36C1103/114HCA-0, and C5JFR36C1104/L114HCA-0
2009-19-05		Boeing	747, 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747SR, and 747SP, 747-400, 747-400D, and 747-400F
2009-20-01		Boeing	727-281

## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
<b>Biweekly 2009-21</b>			
2009-20-02		Boeing	767-200 and -300
2009-20-03		Boeing	727, 727C, 727-100, 727-100C, 727-200, and 727-200F
2009-20-05		Airbus	A318, A319, A320, and A321
2009-20-06	S 88-06-03	Airbus	A310-203 and -222 airplanes, and Model A300 B4-620
2009-20-08		Boeing	727, 727C, 727-100, 727-100C, 727-200, and 727-200F
2009-20-09		Boeing	767-200, -300, and -300F
2009-20-11		Boeing	737-300, -400, and -500
2009-20-12		Boeing	747-100, -100B, -100B SUD, -200B, -200C, -200F, -300, -400, -400D, -400F, and 747SR
<b>Biweekly 2009-22</b>			
2007-23-05 R1		Saab	SAAB 2000
2009-20-10		CASA	C-212-CB, C-212-CC, C-212-CD and C-212-CE
2009-20-14	S 86-07-01	Rolls-Royce plc	Engine: RB211-535E4-37, RB211-535E4-B-37, and RB211-535E4-B-75
2009-21-01		Boeing	737-300 series, 737-400 series
2009-21-03		Hamilton Sundstrand Power Systems	Appliance: T-62T-46C12 auxiliary power units
2009-21-05		Airbus	A340-211, -212, and -213 series; A340-311, -312, and -313 series
2009-21-06		328 Support Services GmbH	328-100 and -300
2009-21-09	S 2003-15-06	Rolls-Royce plc	Engine: RB211 Trent 875-17, Trent 877-17, Trent 884-17, Trent 892-17, Trent 892B-17, and Trent 895-17
<b>Biweekly 2009-23</b>			
2007-21-14 R1		Airbus	
2007-22-03 R1		Airbus	A300 B2-1A, B2-1C, B2K-3C, B2-203, B4-2C, B4-103, and B4-203, A300-600
2008-04-18 R1		Embraer	EMB-120, -120ER, -120FC, -120QC, and -120RT
2008-04-19 R1		ATR-GIE Avions de Transport Régional	ATR 42-200, -300, -320, and -500 airplanes; and all ATR Model ATR 72-101, -201, -102, -202, -211, -212, and -212A
2008-05-18 R1		Fokker Services B.V	F.27 Mark 050 airplanes, all serial numbers; and Fokker F.27 Mark 200, 300, 400, 500, 600, and 700
2008-09-06 R1		Saab AB, Saab Aerosystems	SAAB 340A (SAAB/SF340A) and SAAB 340B
2008-10-07 R1		Boeing	
2009-01-06 R1		328 Support Services GmbH	328-300
2009-21-02		Airbus	
2009-21-04		Rolls-Royce Deutschland Ltd & Co KG	Engine: BR700-715A1-30, BR700-715B1-30, and BR700-715C1-30
2009-21-07		General Electric Company	Engine: CF6-80C2
2009-21-12		Airbus	A300 B4-601, B4-603, B4-605R, B4-620, B4-622, B4-622R, F4-605R, F4-622R, C4-605R
2009-22-01	S 2008-10-14	Rolls-Royce Deutschland Ltd & Co KG	Engine: RRD Tay 650-15
2009-22-06		International Aero Engines AG	Engine: V2500-A1, V2527E-A5, V2530-A5, and V2528-D5
2009-22-07		Saab AB, Saab Aerosystems	SAAB 2000
2009-22-08		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, Boeing Model 757-200, -200PF, and -300
2009-22-09		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)
2009-22-12		Bombardier	CL-600-2C10 (Regional Jet Series 700, 701 & 702) airplanes, Model CL-600-2D15 (Regional Jet Series 705) airplanes, and Model CL-600-2D24 (Regional Jet Series 900)
2009-22-13		Boeing	767-200, -300, -300F, and -400ER
2009-22-14		Boeing	747-200C and 747-200F



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**2007-21-14 R1 Airbus:** Amendment 39-16061. Docket No. FAA-2009-0996; Directorate Identifier 2009-NM-156-AD.

**Effective Date**

(a) This airworthiness directive (AD) is effective November 12, 2009.

**Affected ADs**

(b) This AD revises AD 2007-21-14.

**Applicability**

(c) This AD applies to all Airbus Model A310-203, -204, -221, -222, -304, -322, -324, and -325 airplanes, certificated in any category.

Note 1: This AD requires revisions to certain operator maintenance documents to include new inspections and critical design configuration control limitations (CDCCLs). Compliance with the operator maintenance documents 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 and CDCCLs, the operator may not be able to accomplish the inspections and CDCCLs 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 (j) of this AD. The request should include a description of changes to the required inspections and CDCCLs that will preserve the critical ignition source prevention feature of the affected fuel system.

**Unsafe Condition**

(d) This AD results from fuel system reviews conducted by the manufacturer. We are issuing this AD to prevent the potential of ignition sources inside fuel tanks, which, in combination with flammable fuel vapors caused by latent failures, alterations, repairs, or maintenance actions, could result in fuel tank explosions and consequent loss of the airplane.

**Compliance**

(e) 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 AD 2007-21-14, With No Changes**

### **Revise Airworthiness Limitations Section (ALS) To Incorporate Fuel Maintenance and Inspection Tasks**

(f) Within 3 months after November 20, 2007 (the effective date of AD 2007-21-14), revise the ALS of the Instructions for Continued Airworthiness to incorporate Airbus A310 ALS Part 5–Fuel Airworthiness Limitations, dated May 31, 2006, as defined in Airbus A310 Fuel Airworthiness Limitations, Document 95A.1930/05, Issue 2, dated May 11, 2007 (approved by the European Aviation Safety Agency (EASA) on July 6, 2007), Section 1, "Maintenance/Inspection Tasks." For all tasks identified in Section 1 of Document 95A.1930/05, the initial compliance times start from the later of the times specified in paragraphs (f)(1) and (f)(2) of this AD, and the repetitive inspections must be accomplished thereafter at the intervals specified in Section 1 of Document 95A.1930/05, except as provided by paragraph (g) of this AD.

(1) November 20, 2007.

(2) The date of issuance of the original French standard airworthiness certificate or the date of issuance of the original French export certificate of airworthiness.

Note 2: Airbus Operator Information Telex SE 999.0079/07, Revision 01, dated August 14, 2007, identifies the applicable sections of the Airbus A310 Airplane Maintenance Manual necessary for accomplishing the tasks specified in Section 1 of Document 95A.1930/05.

### **Initial Compliance Time for Task 28-18-00-03-1**

(g) For Task 28-18-00-03-1 identified in Section 1 of Document 95A.1930/05, "Maintenance/Inspection Tasks," of Airbus A310 Fuel Airworthiness Limitations, Document 95A.1930/05, Issue 2, dated May 11, 2007 (approved by the EASA on July 6, 2007): The initial compliance time is the later of the times specified in paragraphs (g)(1) and (g)(2) of this AD. Thereafter, Task 28-18-00-03-1 must be accomplished at the repetitive interval specified in Section 1 of Document 95A.1930/05.

(1) Prior to the accumulation of 40,000 total flight hours.

(2) Within 72 months or 20,000 flight hours after November 20, 2007, whichever occurs first.

### **Revise ALS To Incorporate CDCCLs**

(h) Within 12 months after November 20, 2007, revise the ALS of the Instructions for Continued Airworthiness to incorporate Airbus A310 ALS Part 5–Fuel Airworthiness Limitations, dated May 31, 2006, as defined in Airbus A310 Fuel Airworthiness Limitations, Document 95A.1930/05, Issue 2, dated May 11, 2007 (approved by the EASA on July 6, 2007), Section 2, "Critical Design Configuration Control Limitations."

### **No Alternative Inspections, Inspection Intervals, or CDCCLs**

(i) Except as provided by paragraph (j) of this AD: After accomplishing the actions specified in paragraphs (f) and (h) of this AD, no alternative inspections, inspection intervals, or CDCCLs may be used.

## New Information

### Explanation of CDCCL Requirements

Note 3: Notwithstanding any other maintenance or operational requirements, components that have been identified as airworthy or installed on the affected airplanes before the revision of the ALS, as required by paragraph (f) of this AD, do not need to be reworked in accordance with the CDCCLs. However, once the ALS has been revised, future maintenance actions on these components must be done in accordance with the CDCCLs.

### Alternative Methods of Compliance (AMOCs)

(j)(1) 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. Send information to ATTN: Tom Stafford, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1622; fax (425) 227-1149.

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

### Related Information

(k) EASA airworthiness directive 2007-0096 R1, dated May 2, 2007, also addresses the subject of this AD.

### Material Incorporated by Reference

(l) You must use Airbus A310 ALS Part 5–Fuel Airworthiness Limitations, dated May 31, 2006; and Airbus A310 Fuel Airworthiness Limitations, Document 95A.1930/05, Issue 2, dated May 11, 2007; to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register previously approved the incorporation by reference of Airbus A310 ALS Part 5–Fuel Airworthiness Limitations, dated May 31, 2006; and Airbus A310 Fuel Airworthiness Limitations, Document 95A.1930/05, Issue 2, dated May 11, 2007; on November 20, 2007 (72 FR 58499, October 16, 2007).

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

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

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

Issued in Renton, Washington, on October 19, 2009.  
Ali Bahrami,  
Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2007-22-03 R1 Airbus:** Amendment 39-16062. Docket No. FAA-2009-0997; Directorate Identifier 2009-NM-158-AD.

### **Effective Date**

(a) This airworthiness directive (AD) is effective November 12, 2009.

### **Affected ADs**

(b) This AD revises AD 2007-22-03, Amendment 39-15239.

### **Applicability**

(c) This AD applies to all Airbus Model A300 B2-1A, B2-1C, B2K-3C, B2-203, B4-2C, B4-103, and B4-203 airplanes, certificated in any category, except Airbus Model A300-600 airplanes.

Note 1: This AD requires revisions to certain operator maintenance documents to include new inspections and critical design configuration control limitations (CDCCLs). Compliance with the operator maintenance documents 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 and CDCCLs, the operator may not be able to accomplish the inspections and CDCCLs 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 (j)(1) of this AD. The request should include a description of changes to the required inspections and CDCCLs that will preserve the critical ignition source prevention feature of the affected fuel system.

### **Unsafe Condition**

(d) This AD results from fuel system reviews conducted by the manufacturer. We are issuing this AD to prevent potential of ignition sources inside fuel tanks, which, in combination with flammable fuel vapors caused by latent failures, alterations, repairs, or maintenance actions, could result in fuel tank explosions and consequent loss of the airplane.

### **Compliance**

(e) 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 AD 2007-22-03, With Certain Revised Compliance Methods**

### **Revise Airworthiness Limitations Section (ALS) To Incorporate Fuel Maintenance and Inspection Tasks**

(f) Within 3 months after November 28, 2007 (the effective date of AD 2007-22-03), revise the ALS of the Instructions for Continued Airworthiness to incorporate Airbus A300 Fuel Airworthiness Limitations, Document 95A.1928/05, Issue 2, dated May 11, 2007 (approved by the European Aviation Safety Agency (EASA) on July 6, 2007), Section 1, "Maintenance/Inspection Tasks." For all tasks identified in Section 1 of Document 95A.1928/05, the initial compliance times start from the later of the times specified in paragraphs (f)(1) and (f)(2) of this AD, and the repetitive inspections must be accomplished thereafter at the intervals specified in Section 1 of Document 95A.1928/05, except as provided by paragraph (g) of this AD.

(1) November 28, 2007.

(2) The date of issuance of the original French standard airworthiness certificate or the date of issuance of the original French export certificate of airworthiness.

Note 2: Airbus Operator Information Telex SE 999.0079/07, Revision 01, dated August 14, 2007, identifies the applicable sections of the Airbus A300 Airplane Maintenance Manual necessary for accomplishing the tasks specified in Section 1 of Document 95A.1928/05.

### **Initial Compliance Time for Task 28-18-00-03-1**

(g) For Task 28-18-00-03-1 identified in Section 1 of Document 95A.1928/05, "Maintenance/Inspection Tasks," of Airbus A300 Fuel Airworthiness Limitations, Document 95A.1928/05, Issue 2, dated May 11, 2007 (approved by the EASA on July 6, 2007): The initial compliance time is the later of the times specified in paragraphs (g)(1) and (g)(2) of this AD. Thereafter, Task 28-18-00-03-1 must be accomplished at the repetitive interval specified in Section 1 of Document 95A.1928/05.

(1) Prior to the accumulation of 40,000 total flight hours.

(2) Within 72 months or 20,000 flight hours after November 28, 2007, whichever occurs first.

### **Revise ALS To Incorporate CDCCLs**

(h) Within 12 months after November 28, 2007, revise the ALS of the Instructions for Continued Airworthiness to incorporate Airbus A300 Fuel Airworthiness Limitations, Document 95A.1928/05, Issue 2, dated May 11, 2007 (approved by the EASA on July 6, 2007), Section 2, "Critical Design Configuration Control Limitations."

### **No Alternative Inspections, Inspection Intervals, or CDCCLs**

(i) Except as provided by paragraph (j) of this AD: After accomplishing the actions specified in paragraphs (f) and (h) of this AD, no alternative inspections, inspection intervals, or CDCCLs may be used.

## New Information

### Explanation of CDCCL Requirements

Note 3: Notwithstanding any other maintenance or operational requirements, components that have been identified as airworthy or installed on the affected airplanes before the revision of the ALS, as required by paragraphs (f) and (h) of this AD, do not need to be reworked in accordance with the CDCCLs. However, once the ALS has been revised, future maintenance actions on these components must be done in accordance with the CDCCLs.

### Alternative Methods of Compliance (AMOCs)

(j)(1) 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. Send information to ATTN: Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-2125; fax (425) 227-1149.

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

### Related Information

(k) European Aviation Safety Agency Airworthiness Directive 2007-0094 R1, dated May 2, 2007, also addresses the subject of this AD.

### Material Incorporated by Reference

(l) You must use Airbus A300 Fuel Airworthiness Limitations, Document 95A.1928/05, Issue 2, dated May 11, 2007, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register previously approved the incorporation by reference of Airbus A300 Fuel Airworthiness Limitations, Document 95A.1928/05, Issue 2, dated May 11, 2007, on November 28, 2007 (72 FR 60240, October 24, 2007).

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

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

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

Issued in Renton, Washington, on October 19, 2009.  
Ali Bahrami,  
Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2008-04-18 R1 Empresa Brasileira de Aeronautica S.A. (EMBRAER):** Amendment 39-16071.  
Docket No. FAA-2009-1001; Directorate Identifier 2009-NM-166-AD.

### **Effective Date**

- (a) This airworthiness directive (AD) becomes effective November 16, 2009.

### **Affected ADs**

- (b) This AD revises AD 2008-04-18, Amendment 39-15390.

### **Applicability**

(c) This AD applies to all EMBRAER Model EMB-120, -120ER, -120FC, -120QC, and -120RT airplanes; certificated in any category.

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 (g)(1) of this AD. The request should include a description of changes to the required inspections that will ensure the continued operational safety of the airplane.

### **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 former revisions of the Maintenance Review Board Report (MRBR) of the EMB-120() aircraft do not fully comply with some Critical Design Configuration Control Limitations (CDCCL) and Fuel System Limitations (FSL). These limitations are necessary to preclude ignition sources in the fuel system, as required by RBHA-E88/SFAR-88 (Special Federal Aviation Regulation No. 88).

Since this condition affects flight safety, a corrective action is required. Thus, sufficient reason exists to request compliance with this AD in the indicated time limit.

The potential of ignition sources, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane. The corrective action is revising the Airworthiness Limitations Section (ALS) of the Instructions for Continued Airworthiness to incorporate new limitations for fuel tank systems.

## **Restatement of AD 2008-04-18 With Changes to Compliance Method**

### **Actions and Compliance**

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

(1) Within 1 month after April 3, 2008 (the effective date of AD 2008-04-18), revise the ALS of the Instructions for Continued Airworthiness to incorporate Tasks 15 to 18 of Section 6—"Part E—Fuel System Limitations," EMBRAER Temporary Revision No. 22-1, dated November 18, 2005, of the EMBRAER EMB-120 Brasilia Maintenance Review Board Report (MRBR), MRB-HI-200. For all tasks identified in the MRBR, the initial compliance times start from the later of the times specified in paragraphs (f)(1)(i) and (f)(1)(ii) of this AD, and the repetitive inspections must be accomplished thereafter at the interval specified in the MRBR, except as provided by paragraphs (f)(3) and (g)(1) of this AD.

(i) April 3, 2008.

(ii) The date of issuance of the original Brazilian standard airworthiness certificate or the date of issuance of the original Brazilian export certificate of airworthiness.

(2) Within 1 month after April 3, 2008, revise the ALS of the Instructions for Continued Airworthiness to incorporate the CDCCLs to include items (1) and (2), dated March 22, 2005, of Section 6—"Part D—Critical Design Configuration Control Limitation," of the EMBRAER EMB-120 Brasilia MRBR, MRB-HI-200.

(3) For the functional checks and detailed visual inspections, Tasks 15 to 18 of Section 6—"Part E—Fuel System Limitations," EMBRAER Temporary Revision No. 22-1, dated November 18, 2005, of the EMBRAER EMB-120 Brasilia MRBR, MRB-HI-200: The initial compliance time is within 4,000 flight hours or 48 months after April 3, 2008, whichever occurs first. Thereafter those tasks must be accomplished at the repetitive interval specified in Section 6—"Part E—Fuel System Limitations," EMBRAER Temporary Revision No. 22-1, dated November 18, 2005, of the EMBRAER EMB-120 Brasilia MRBR, MRB-HI-200.

(4) After accomplishing the actions specified in paragraphs (f)(1) and (f)(2) of this AD, no alternative inspections, inspection intervals, or CDCCLs may be used unless the inspections, intervals, or CDCCLs are approved as an alternative method of compliance in accordance with the procedures specified in paragraph (g)(1) of this AD.

### **New Information**

### **Explanation of CDCCL Requirements**

Note 2: Notwithstanding any other maintenance or operational requirements, components that have been identified as airworthy or installed on the affected airplanes before the revision of the ALS, as required by paragraph (f) of this AD, do not need to be reworked in accordance with the CDCCLs. However, once the ALS has been revised, future maintenance actions on these components must be done in accordance with the CDCCLs.

## FAA AD Differences

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

## Other FAA AD Provisions

(g) 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. Send information 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. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

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

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act, (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

## Related Information

(h) Refer to MCAI Brazilian Airworthiness Directive 2007-05-02, effective June 6, 2007; EMBRAER Temporary Revision No. 22-1, dated November 18, 2005, of the EMBRAER EMB-120 Brasilia MRBR, MRB-HI-200; and Section 6—"Part D—Critical Design Configuration Control Limitation," of the EMBRAER EMB-120 Brasilia MRBR, MRB-HI-200; for related information.

## Material Incorporated by Reference

(i) You must use EMBRAER Temporary Revision No. 22-1, dated November 18, 2005, of the EMBRAER EMB-120 Brasilia Maintenance Review Board Report, MRB-HI-200; and pages 6.III.1 and 6.III.2, dated March 22, 2005, of Section 6—"Part D—Critical Design Configuration Control Limitation," of the EMBRAER EMB-120 Brasilia Maintenance Review Board Report, MRB-HI-200; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register previously approved the incorporation by reference of this service information on April 3, 2008 (73 FR 10655, February 28, 2008).

(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](mailto: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 or 425-227-1152.

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

Issued in Renton, Washington, on October 22, 2009.

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



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**2008-04-19 R1 ATR–GIE Avions de Transport Régional (Formerly Aerospatiale):** Amendment 39-16069. Docket No. FAA-2009-0999; Directorate Identifier 2009-NM-155-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective November 18, 2009.

**Affected ADs**

- (b) This AD revises AD 2008-04-19, Amendment 39-15391.

**Applicability**

- (c) This AD applies to all ATR Model ATR 42-200, -300, -320, and -500 airplanes; and all ATR Model ATR 72-101, -201, -102, -202, -211, -212, and -212A airplanes; certificated in any category.

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 (g) of this AD. The request should include a description of changes to the required inspections that will ensure the continued operational safety of the airplane.

**Subject**

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

**Reason**

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

Subsequent to accidents involving Fuel Tank System explosions in flight \* \* \* and on ground, the FAA published Special Federal Aviation Regulation 88 (SFAR 88) in June 2001. SFAR 88 required a safety review of the aircraft Fuel Tank System to determine that the design meets the requirements of FAR (Federal Aviation Regulation) § 25.901 and § 25.981(a) and (b).

A similar regulation has been recommended by the JAA (Joint Aviation Authorities) to the European National Aviation Authorities in JAA letter 04/00/02/07/03-L024 of 3

February 2003. The review was requested to be mandated by NAA's (National Aviation Authorities) using JAR (Joint Aviation Regulation) § 25.901(c), § 25.1309.

In August 2005 EASA published a policy statement on the process for developing instructions for maintenance and inspection of Fuel Tank System ignition source prevention (EASA D 2005/CPRO, [http://www.easa.eu.int/home/cert\\_policy\\_statements\\_en.html](http://www.easa.eu.int/home/cert_policy_statements_en.html)) that also included the EASA expectations with regard to compliance times of the corrective actions on the unsafe and the not unsafe part of the harmonised design review results. On a global scale the TC (type certificate) holders committed themselves to the EASA published compliance dates (see EASA policy statement). The EASA policy statement has been revised in March 2006: The date of 31-12-2005 for the unsafe related actions has now been set at 01-07-2006.

Fuel Airworthiness Limitations are items arising from a systems safety analysis that have been shown to have failure mode(s) associated with an 'unsafe condition' as defined in FAA's memo 2003-112-15 'SFAR 88–Mandatory Action Decision Criteria'. These are identified in Failure Conditions for which an unacceptable probability of ignition risk could exist if specific tasks and/or practices are not performed in accordance with the manufacturers' requirements.

This EASA Airworthiness Directive mandates the Fuel System Airworthiness Limitations (comprising maintenance/inspection tasks and Critical Design Configuration Control Limitations (CDCCL)) for the type of aircraft, that resulted from the design reviews and the JAA recommendation and EASA policy statement mentioned above.

The corrective action is revising the Airworthiness Limitations Section (ALS) of the Instructions for Continued Airworthiness (ICA) to incorporate new limitations for fuel tank systems.

## **Restatement of AD 2008-04-19 With Changes to Compliance Method**

### **Actions and Compliance**

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

(1) Within 3 months after April 3, 2008 (the effective date of AD 2008-04-19), revise the ALS of the ICA to incorporate Task 28.10.00 "Fuel Tank–General," and Task 28.20.00 "Distribution," of the Certification Maintenance Requirements (CMR) Section of the Time Limits Section of Part 1 of the ATR 42-200/-300/-320 Maintenance Review Board Report (MRBR), Revision 7, dated March 31, 2006; the ATR 42-400/-500 MRBR, Revision 6, dated March 26, 2007; or the ATR 72 MRBR, Revision 8, dated March 26, 2007; as applicable. For all tasks identified in the applicable MRBR, the initial compliance times start from the later of the times specified in paragraphs (f)(1)(i) and (f)(1)(ii) of this AD, except as provided by paragraphs (f)(3) and (g) of this AD. The repetitive inspections must be accomplished thereafter at the interval specified in the applicable MRBR.

(i) April 3, 2008.

(ii) The date of issuance of the original French standard airworthiness certificate or the date of issuance of the original French export certificate of airworthiness.

(2) Within 3 months after April 3, 2008, revise the ALS of the ICA to incorporate the CDCCLs as defined in Section 4., "Critical Design Configuration Control List," of the Airworthiness

Limitations Section of the Time Limits Section of Part 1 of the ATR 42-200/-300/-320 MRBR, Revision 7, dated March 31, 2006; the ATR 42-400/-500 MRBR, Revision 6, dated March 26, 2007; or the ATR 72 MRBR, Revision 8, dated March 26, 2007; as applicable.

(3) For the task titled "Detailed visual inspection of the fuel tanks and associated equipment, wiring, piping and braids" (CMR task reference 28.10.00-1): The initial compliance time is the later of the times specified in paragraphs (f)(3)(i) and (f)(3)(ii) of this AD. Thereafter, the task titled "Detailed visual inspection of the fuel tanks and associated equipment, wiring, piping and braids" must be accomplished at the repetitive interval specified in Section 4., "Critical Design Configuration Control List," of the Airworthiness Limitations Section of the Time Limits Section of Part 1 of the ATR 42-200/-300/-320 MRBR, Revision 7, dated March 31, 2006; the ATR 42-400/-500 MRBR, Revision 6, dated March 26, 2007; or the ATR 72 MRBR, Revision 8, dated March 26, 2007; as applicable.

(i) Within 144 months since the date of issuance of the original French standard airworthiness certificate or the date of issuance of the original French export certificate of airworthiness.

(ii) Within 72 months or 20,000 flight hours after April 3, 2008, whichever occurs first.

(4) After accomplishing the actions specified in paragraphs (f)(1), (f)(2), and (f)(3) of this AD, no alternative inspection, inspection intervals, or CDCCLs may be used unless the inspections, intervals, or CDCCLs are approved as an alternative method of compliance (AMOC), in accordance with the procedures specified in paragraph (g) of this AD.

## **New Information**

### **Explanation of CDCCL Requirements**

Note 2: Notwithstanding any other maintenance or operational requirements, components that have been identified as airworthy or installed on the affected airplanes before the revision of the ALS, as required by paragraph (f) of this AD, do not need to be reworked in accordance with the CDCCLs. However, once the ALS has been revised, future maintenance actions on these components must be done in accordance with the CDCCLs.

### **FAA AD Differences**

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

### **Other FAA AD Provisions**

(g) 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. Send information 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. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office.

(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 ensure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

### Related Information

(h) Refer to MCAI European Aviation Safety Agency Airworthiness Directive 2006-0219R1, dated June 29, 2007, and the service information identified in Table 1 of this AD, for related information.

**Table 1 – Service Information**

<b>Document</b>	<b>Revision Level</b>	<b>Date</b>
Time Limits Section of Part 1 of the ATR 42-200/-300/-320 Maintenance Review Board Report	7	March 31, 2006
Time Limits Section of Part 1 of the ATR 42-400/-500 Maintenance Review Board Report	6	March 26, 2007
Time Limits Section of Part 1 of the ATR 72 Maintenance Review Board Report	8	March 26, 2007

### Material Incorporated by Reference

(i) You must use the applicable service information contained in Table 2 of this AD to do the actions required by this AD, unless the AD specifies otherwise.

**Table 2 – Material Incorporated by Reference**

<b>Document</b>	<b>Revision Level</b>	<b>Date</b>
Time Limits Section of Part 1 of the ATR 42-200/-300/-320 Maintenance Review Board Report	7	March 31, 2006
Time Limits Section of Part 1 of the ATR 42-400/-500 Maintenance Review Board Report	6	March 26, 2007
Time Limits Section of Part 1 of the ATR 72 Maintenance Review Board Report	8	March 26, 2007

(1) The Director of the Federal Register previously approved the incorporation by reference of this service information on April 3, 2008 (73 FR 10652, February 28, 2008).

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

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

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

Issued in Renton, Washington, on October 22, 2009.

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



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**2008-05-18 R1 Fokker Services B.V.:** Amendment 39-16083. Docket No. FAA-2009-1024; Directorate Identifier 2009-NM-182-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective November 23, 2009.

**Affected ADs**

- (b) This AD revises AD 2008-05-18, Amendment 39-15412.

**Applicability**

(c) This AD applies to Fokker Model F.27 Mark 050 airplanes, all serial numbers; and Fokker F.27 Mark 200, 300, 400, 500, 600, and 700 airplanes, serial numbers 10102 through 10692 inclusive; certificated in any category.

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 (g)(1) of this AD. The request should include a description of changes to the required inspections that will ensure the continued operational safety of the airplane.

**Subject**

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

**Reason**

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

Subsequent to accidents involving Fuel Tank System explosions in flight \* \* \* and on ground, the FAA published Special Federal Aviation Regulation 88 (SFAR 88) in June 2001. SFAR 88 required a safety review of the aircraft Fuel Tank System to determine that the design meets the requirements of FAR (Federal Aviation Regulation) § 25.901 and § 25.981(a) and (b).

A similar regulation has been recommended by the JAA (Joint Aviation Authorities) to the European National Aviation Authorities in JAA letter 04/00/02/07/03-L024 of 3

February 2003. The review was requested to be mandated by NAA's (National Aviation Authorities) using JAR (Joint Aviation Regulation) § 25.901(c), § 25.1309.

In August 2005 EASA published a policy statement on the process for developing instructions for maintenance and inspection of Fuel Tank System ignition source prevention (EASA D 2005/CPRO, [http://www.easa.eu.int/home/cert\\_policy\\_statements\\_en.html](http://www.easa.eu.int/home/cert_policy_statements_en.html)) that also included the EASA expectations with regard to compliance times of the corrective actions on the unsafe and the not unsafe part of the harmonised design review results. On a global scale the TC (type certificate) holders committed themselves to the EASA published compliance dates (see EASA policy statement). The EASA policy statement has been revised in March 2006: the date of 31-12-2005 for the unsafe related actions has now been set at 01-07-2006.

Fuel Airworthiness Limitations are items arising from a systems safety analysis that have been shown to have failure mode(s) associated with an 'unsafe condition' as defined in FAA's memo 2003-112-15 'SFAR 88—Mandatory Action Decision Criteria'. These are identified in Failure Conditions for which an unacceptable probability of ignition risk could exist if specific tasks and/or practices are not performed in accordance with the manufacturers' requirements.

This EASA Airworthiness Directive mandates the Fuel System Airworthiness Limitations, comprising maintenance/inspection tasks and Critical Design Configuration Control Limitations (CDCCL) for the type of aircraft, that resulted from the design reviews and the JAA recommendation and EASA policy statement mentioned above.

The corrective action includes revising the Airworthiness Limitations Section (ALS) of the Instructions for Continued Airworthiness to incorporate new limitations for fuel tank systems.

## **Restatement of Requirements of AD 2008-05-18, With Changes to Compliance Method**

### **Actions and Compliance**

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

(1) Within 3 months after April 16, 2008 (the effective date of AD 2008-05-18), revise the ALS of the Instructions for Continued Airworthiness to incorporate the limits (inspections, thresholds, and intervals) specified in Fokker 50/60 Fuel Airworthiness Limitation Items (ALI) and Critical Design Configuration Control Limitations (CDCCL) Report SE-671, Issue 2, dated December 1, 2006; or Fokker Service Bulletin SBF27-28-070, Revision 1, dated January 8, 2008; as applicable. For all tasks identified in Report SE-671 or Service Bulletin SBF27-28-070, the initial compliance times are as specified in Table 1 or Table 2 of this AD, as applicable. The repetitive inspections must be accomplished thereafter at the intervals specified in Report SE-671 or Service Bulletin SBF27-28-070, as applicable, except as provided by paragraphs (f)(3) and (g)(1) of this AD.

**Table 1 – Initial Compliance Times for ALS Revision for Model F.27 Mark 050 Airplanes**

<b>For –</b>	<b>The later of –</b>
Task 280000-01	102 months after April 16, 2008; or 102 months after the date of issuance of the original Dutch standard airworthiness certificate or the date of issuance of the original Dutch export certificate of airworthiness
Task 280000-02	30 months after April 16, 2008; or 30 months after the date of issuance of the original Dutch standard airworthiness certificate or the date of issuance of the original Dutch export certificate of airworthiness

**Table 2 – Initial Compliance Times for ALS Revision for Model F.27 Mark 200, 300, 400, 500, 600, and 700 Airplanes**

<b>For –</b>	<b>The later of –</b>
Task 280000-01	78 months after April 16, 2008; or 78 months after the date of issuance of the original Dutch standard airworthiness certificate or the date of issuance of the original Dutch export certificate of airworthiness
Task 280000-02	18 months after April 16, 2008; or 18 months after the date of issuance of the original Dutch standard airworthiness certificate or the date of issuance of the original Dutch export certificate of airworthiness

(2) Within 3 months after April 16, 2008, revise the ALS of the Instructions for Continued Airworthiness to incorporate the CDCCLs as defined in Fokker 50/60 Fuel Airworthiness Limitations Items (ALI) and Critical Design Configuration Control Limitations (CDCCL) Report SE-671, Issue 2, dated December 1, 2006; or Fokker Service Bulletin SBF27-28-070, Revision 1, dated January 8, 2008; as applicable.

(3) Where Fokker 50/60 Fuel Airworthiness Limitation Items (ALI) and Critical Design Configuration Control Limitations (CDCCL) Report SE-671, Issue 2, dated December 1, 2006; or Fokker Service Bulletin SBF27-28-070, Revision 1, dated January 8, 2008; as applicable; allow for exceptional short-term extensions, an exception is acceptable to the FAA if it is approved by the appropriate principal inspector in the FAA Flight Standards Certificate Holding District Office.

(4) After accomplishing the actions specified in paragraphs (f)(1) and (f)(2) of this AD, no alternative inspections, inspection intervals, or CDCCLs may be used, unless the inspections, inspection intervals, or CDCCLs are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (g)(1) of this AD.

(5) Actions done before April 16, 2008, in accordance with Fokker 50/60 Fuel Airworthiness Limitation Items (ALI) and Critical Design Configuration Control Limitations (CDCCL) Report SE-671, Issue 1, dated January 31, 2006; and Fokker Service Bulletin SBF27/28-070, dated June 30, 2006; are acceptable for compliance with the corresponding requirements of this AD.

## **New Information:**

### **Explanation of CDCCL Requirements**

Note 2: Notwithstanding any other maintenance or operational requirements, components that have been identified as airworthy or installed on the affected airplanes before the revision of the ALS of the Instructions for Continued Airworthiness, as required by paragraphs (f)(1) and (f)(2) of this AD, do not need to be reworked in accordance with the CDCCLs. However, once the ALS has been revised, future maintenance actions on these components must be done in accordance with the CDCCLs.

### **FAA AD Differences**

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

### **Other FAA AD Provisions**

(g) 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. Send information to ATTN: Tom Rodriguez, Aerospace Engineer, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1137; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

(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 ensure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

### **Related Information**

(h) Refer to MCAI European Aviation Safety Agency Airworthiness Directive 2006-0207, dated July 12, 2006; EASA Airworthiness Directive 2006-0209, dated July 12, 2006 (corrected September 1, 2006); Fokker 50/60 Fuel Airworthiness Limitation Items (ALI) and Critical Design Configuration Control Limitations (CDCCL) Report SE-671, Issue 2, dated December 1, 2006; and Fokker Service Bulletin SBF27-28-070, Revision 1, dated January 8, 2008; for related information.

## Material Incorporated by Reference

(i) You must use Fokker 50/60 Fuel Airworthiness Limitation Items (ALI) and Critical Design Configuration Control Limitations (CDCCL) Report SE-671, Issue 2, dated December 1, 2006; and Fokker Service Bulletin SBF27-28-070, Revision 1, dated January 8, 2008; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register previously approved the incorporation by reference of Fokker 50/60 Fuel Airworthiness Limitation Items (ALI) and Critical Design Configuration Control Limitations (CDCCL) Report SE-671, Issue 2, dated December 1, 2006; and Fokker Service Bulletin SBF27-28-070, Revision 1, dated January 8, 2008; on April 16, 2008 (73 FR 13071, March 12, 2008).

(2) For service information identified in this AD, contact Fokker Services B.V., Technical Services Dept., P.O. Box 231, 2150 AE Nieuw-Vennep, the Netherlands; telephone +31 (0)252-627-350; fax +31 (0)252-627-211; e-mail [technicalservices.fokkerservices@stork.com](mailto:technicalservices.fokkerservices@stork.com); Internet <http://www.myfokkerfleet.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 or 425-227-1152.

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

Issued in Renton, Washington, on October 26, 2009.

Stephen P. Boyd,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2008-09-06 R1 Saab AB, Saab Aerosystems:** Amendment 39-16046. Docket No. FAA-2009-0910; Directorate Identifier 2009-NM-175-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective November 23, 2009.

**Affected ADs**

- (b) This AD revises AD 2008-09-06.

**Applicability**

- (c) This AD applies to all Saab AB, Saab Aerosystems Model SAAB 340A (SAAB/SF340A) and SAAB 340B airplanes, certificated in any category, all serial numbers.

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 (g)(1) of this AD. The request should include a description of changes to the required inspections that will ensure the continued operational safety of the airplane.

**Subject**

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

**Reason**

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

"Subsequent to accidents involving Fuel Tank System explosions in flight \* \* \* and on ground, the FAA published Special Federal Aviation Regulation 88 (SFAR 88) in June 2001. SFAR 88 required a safety review of the aircraft Fuel Tank System to determine that the design meets the requirements of FAR (Federal Aviation Regulation) § 25.901 and § 25.981(a) and (b).

"A similar regulation has been recommended by the JAA (Joint Aviation Authorities) to the European National Aviation Authorities in JAA letter 04/00/02/07/03-L024 of 3

February 2003. The review was requested to be mandated by NAA's (National Aviation Authorities) using JAR (Joint Aviation Regulation) § 25.901(c), § 25.1309.

"In August 2005 EASA published a policy statement on the process for developing instructions for maintenance and inspection of Fuel Tank System ignition source prevention (EASA D 2005/CPRO, [http://www.easa.eu.int/home/cert\\_policy\\_statements\\_en.html](http://www.easa.eu.int/home/cert_policy_statements_en.html)) that also included the EASA expectations with regard to compliance times of the corrective actions on the unsafe and the not unsafe part of the harmonised design review results. On a global scale the TC (type certificate) holders committed themselves to the EASA published compliance dates (see EASA policy statement). The EASA policy statement has been revised in March 2006: the date of 31-12-2005 for the unsafe related actions has now been set at 01-07-2006.

"Fuel Airworthiness Limitations are items arising from a systems safety analysis that have been shown to have failure mode(s) associated with an 'unsafe condition' as defined in FAA's memo 2003-112-15 'SFAR 88—Mandatory Action Decision Criteria'. These are identified in Failure Conditions for which an unacceptable probability of ignition risk could exist if specific tasks and/or practices are not performed in accordance with the manufacturers' requirements.

"This EASA Airworthiness Directive mandates the Fuel System Airworthiness Limitations (comprising maintenance/inspection tasks and Critical Design Configuration Control Limitations (CDCCL)) for the type of aircraft, that resulted from the design reviews and the JAA recommendation and EASA policy statement mentioned above."

The corrective action is revising the Airworthiness Limitations Section (ALS) of the Instructions for Continued Airworthiness to incorporate new limitations for fuel tank systems.

## **Restatement of AD 2008-09-06, With Revised Compliance Method**

### **Actions and Compliance**

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

(1) Within 3 months after June 2, 2008 (the effective date of AD 2008-09-06), revise the ALS of the Instructions for Continued Airworthiness to incorporate the maintenance and inspection instructions in Part 1 of Saab 340 Fuel Airworthiness Limitations Document 340 LKS 009033, dated February 14, 2006. For all tasks identified in Part 1 of Saab 340 Fuel Airworthiness Limitations Document 340 LKS 009033, dated February 14, 2006, the initial compliance times start from June 2, 2008, and the repetitive inspections must be accomplished thereafter at the interval specified in Part 1 of Saab 340 Fuel Airworthiness Limitations Document 340 LKS 009033, dated February 14, 2006; except as provided by paragraphs (f)(3) and (g) of this AD.

(2) Before December 16, 2008, revise the ALS of the Instructions for Continued Airworthiness to incorporate the CDCCLs as defined in Part 2 of Saab 340 Fuel Airworthiness Limitations Document 340 LKS 009033, dated February 14, 2006.

(3) After accomplishing the actions specified in paragraphs (f)(1) and (f)(2) of this AD, no alternative inspection, inspection intervals, or CDCCLs may be used unless the inspections, intervals,

or CDCCLs are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (g)(1) of this AD.

(4) Where Saab 340 Fuel Airworthiness Limitations Document 340 LKS 009033, dated February 14, 2006, allows for exceptional short-term extensions, an exception is acceptable to the FAA if it is approved by the appropriate principal inspector in the FAA Flight Standards Certificate Holding District Office.

## **New Information**

### **Explanation of CDCCL Requirements**

Note 2: Notwithstanding any other maintenance or operational requirements, components that have been identified as airworthy or installed on the affected airplanes before the revision of the ALS, as required by paragraphs (f)(1) and (f)(2) of this AD, do not need to be reworked in accordance with the CDCCLs. However, once the ALS has been revised, future maintenance actions on these components must be done in accordance with the CDCCLs.

### **FAA AD Differences**

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

### **Other FAA AD Provisions**

(g) 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. Send information to ATTN: Shahram Daneshmandi, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1112; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

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

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

### **Related Information**

(h) Refer to MCAI EASA Airworthiness Directive 2006-0221, dated July 20, 2006; and Saab 340 Fuel Airworthiness Limitations Document 340 LKS 009033, dated February 14, 2006; for related information.

## **Material Incorporated by Reference**

(i) You must use Saab 340 Fuel Airworthiness Limitations Document 340 LKS 009033, dated February 14, 2006, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register previously approved the incorporation by reference of Saab 340 Fuel Airworthiness Limitations Document 340 LKS 009033, dated February 14, 2006, on June 2, 2008 (73 FR 22789, April 28, 2008).

(2) For service information identified in this AD, contact Saab Aircraft AB, SAAB Aerosystems, SE 581 88, Linköping, Sweden; telephone +46 13 18 5591; fax +46 13 18 4874; e-mail [saab2000.techsupport@saabgroup.com](mailto:saab2000.techsupport@saabgroup.com); Internet <http://www.saabgroup.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 or 425-227-1152.

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

Issued in Renton, Washington, on October 26, 2009.

Stephen P. Boyd,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2008-10-07 R1 Boeing:** Amendment 39-16070. Docket No. FAA-2009-1000; Directorate Identifier 2009-NM-164-AD.

**Effective Date**

(a) This airworthiness directive (AD) is effective November 16, 2009.

**Affected ADs**

(b) This AD revises AD 2008-10-07.

**Applicability**

(c) This AD applies to all Boeing Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747SR, and 747SP series airplanes, certificated in any category.

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 (AMOC) according to paragraph (k) of this AD. The request should include a description of changes to the required inspections that will ensure the continued operational safety of the airplane.

**Unsafe Condition**

(d) This AD results from a design review of the fuel tank systems. We are issuing this AD to prevent the potential for ignition sources inside fuel tanks caused by latent failures, alterations, repairs, or maintenance actions, which, in combination with flammable fuel vapors, could result in a fuel tank explosion and consequent loss of the airplane.

**Compliance**

(e) 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 AD 2008-10-07 With Changes to Compliance Method: Service Information Reference**

(f) The term "Revision March 2008 of Document D6-13747-CMR," as used in this AD, means Boeing 747-100/200/300/SP Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D6-13747-CMR, Revision March 2008. (For the purposes of Revision March

2008 of Document D6-13747-CMR, the Model 747SR series airplane is basically a Model 747-100 series airplane with certain modifications to improve fatigue life.)

### **Maintenance Program Revision**

(g) Before December 16, 2008, revise the FAA-approved maintenance program to incorporate the information in Section D, "AIRWORTHINESS LIMITATIONS–SYSTEMS," AWLs No. 28-AWL-01 through No. 28-AWL-19 inclusive, of Revision March 2008 of Document D6-13747-CMR; except that the initial inspections required by paragraph (h) of this AD must be done at the applicable compliance time specified in that paragraph. As an optional action, AWLs No. 28-AWL-20 through No. 28-AWL-23 inclusive, as identified in Section D of Revision March 2008 of Document D6-13747-CMR, also may be incorporated into the FAA-approved maintenance program.

### **Initial Inspections and Repair if Necessary**

(h) Do the inspections specified in Table 1 of this AD at the compliance time specified in Table 1 of this AD, and repair any discrepancy, in accordance with Section D of Revision March 2008 of Document D6-13747-CMR. The repair must be done before further flight. Accomplishing the inspections identified in Table 1 of this AD as part of an FAA-approved maintenance program before the applicable compliance time specified in Table 1 of this AD constitutes compliance with the requirements of this paragraph.

Note 2: 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."

Note 3: For the purposes of this AD, a special detailed inspection is: "An intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. The examination is likely to make extensive use of specialized inspection techniques and/or equipment. Intricate cleaning and substantial access or disassembly procedure may be required."

**Table 1 – Initial Inspections**

AWL No.	Description	Compliance Time (whichever occurs later)	
		Threshold	Grace Period
28-AWL-01	A detailed inspection of external wires over the center fuel tank for damaged clamps, wire chafing, and wire bundles in contact with the surface of the center fuel tank	Within 144 months since the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness	Within 72 months after June 12, 2008 (the effective date of AD 2008-10-07)
28-AWL-03	A special detailed inspection of the lightning shield to ground termination on the out-of-tank fuel quantity indicating system to verify functional integrity	Within 144 months since the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness	Within 24 months after June 12, 2008
28-AWL-13	A special detailed inspection of the fault current bond of the fueling shutoff valve actuator of the center wing tank to verify electrical bond	Within 144 months since the date of issuance of the original standard airworthiness certificate or the date of issuance of the original export certificate of airworthiness	Within 60 months after June 12, 2008

### **No Alternative Inspections, Inspection Intervals, or Critical Design Configuration Control Limitations (CDCCLs)**

(i) After accomplishing the actions specified in paragraphs (g) and (h) of this AD, no alternative inspections, inspection intervals, or CDCCLs may be used unless the inspections, intervals, or CDCCLs are approved as an AMOC in accordance with the procedures specified in paragraph (k) of this AD.

### **Credit for Actions Done According to Previous Revisions of the Service Information**

(j) Actions done before the June 12, 2008, in accordance with Boeing 747-100/200/300/SP Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D6-13747-CMR, Revision March 2006; Revision May 2006; Revision December 2006; Revision January 2007; Revision September 2007; or Revision January 2008; are acceptable for compliance with the corresponding requirements of paragraphs (g) and (h) of this AD.

### **New Information**

### **Explanation of CDCCL Requirements**

Note 4: Notwithstanding any other maintenance or operational requirements, components that have been identified as airworthy or installed on the affected airplanes before the revision of the FAA-approved maintenance program, as required by paragraph (g) of this AD, do not need to be

reworked in accordance with the CDCCLs. However, once the FAA-approved maintenance program has been revised, future maintenance actions on these components must be done, in accordance with the CDCCLs.

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

(k)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Douglas Bryant, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle ACO, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6505; fax (425) 917-6590. Or, e-mail information to 9-ANM-Seattle-ACO-AMOC-Requests-faa.gov.

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

### **Material Incorporated by Reference**

(1) You must use Boeing 747-100/200/300/SP Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D6-13747-CMR, Revision March 2008, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register previously approved the incorporation by reference of Boeing 747-100/200/300/SP Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D6-13747-CMR, Revision March 2008, on June 12, 2008 (73 FR 25977, May 8, 2008).

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

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

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

Issued in Renton, Washington, on October 22, 2009.

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



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**2009-01-06 R1 328 Support Services GmbH (Formerly, AvCraft Aerospace GmbH, formerly Fairchild Dornier GmbH, formerly Dornier Luftfahrt GmbH):** Amendment 39-16082. Docket No. FAA-2009-1023; Directorate Identifier 2009-NM-176-AD.

**Effective Date**

(a) This airworthiness directive (AD) is effective November 23, 2009.

**Affected ADs**

(b) This AD revises AD 2009-01-06, Amendment 39-15785.

**Applicability**

(c) This AD applies to all 328 Support Services GmbH Dornier Model 328-300 airplanes, certificated in any category, serial numbers 3105 through 3223 inclusive.

**Unsafe Condition**

(d) This AD results from fuel system reviews conducted by the manufacturer. We are issuing this AD to reduce the potential of ignition sources inside fuel tanks, which, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane.

**Compliance**

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

Note 1: This AD requires revisions to certain operator maintenance documents to include 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 operational safety of the airplane.

## Restatement of the Requirements of AD 2005-15-16

### Without Option 033F003 Installed: Modification and Installations

(f) For airplanes without option 033F003 installed: Within 12 months after September 6, 2005 (the effective date of AD 2005-15-16), do the actions in Table 1 of this AD in accordance with the Accomplishment Instructions of AvCraft Service Bulletin SB-328J-00-197, dated August 23, 2004.

**Table 1 – Requirements for Airplanes Without Option 033F003 Installed**

<b>Do the following actions –</b>	<b>By accomplishing all the actions specified in –</b>
(1) Modify the electrical wiring of the left-hand and right-hand fuel pumps	Paragraph 1.B(1) of the service bulletin.
(2) Install insulation at the left-hand and right-hand flow control and shut-off valves and other components of the environmental control system	Paragraph 1.B(2) of the service bulletin.
(3) Install markings at fuel wiring harnesses	Paragraph 1.B(3) of the service bulletin.

### With Option 033F003 Installed: Modification, Replacement, and Installation

(g) For airplanes with option 033F003 installed: Within 12 months after September 6, 2005, do the actions in Table 2 of this AD, in accordance with the Accomplishment Instructions of AvCraft Service Bulletin SB-328J-00-198, dated August 23, 2004.

**Table 2 – Requirements for Airplanes With Option 033F003 Installed**

<b>Do the following actions –</b>	<b>By accomplishing all the actions specified in –</b>
(1) Modify the electrical wiring of the left-hand and right-hand fuel pumps	Paragraph 2.B(1) of the service bulletin.
(2) Replace the wiring harness of the auxiliary fuel system with a new wiring harness	Paragraph 2.B(2) of the service bulletin.
(3) Install markings at fuel wiring harnesses	Paragraph 2.B(3) of the service bulletin.
(4) Install insulated couplings in the fuel system	Paragraph 2.B(5) of the service bulletin.

## **Revision to Airworthiness Limitations**

(h) Within 12 months after September 6, 2005, revise the Airworthiness Limitations section of the Instructions for Continued Airworthiness to incorporate the information in AvCraft Temporary Revision (TR) ALD-028, dated October 15, 2003, into the AvCraft 328JET Airworthiness Limitations Document (ALD). Thereafter, except as provided by paragraph (k) of this AD, no alternative inspection intervals may be approved for this fuel tank system.

Note 2: This may be done by inserting a copy of AvCraft TR ALD-028, dated October 15, 2003, in the AvCraft 328JET ALD. When this TR has been included in general revisions of the AvCraft 328JET ALD, the TR no longer needs to be inserted into the revised Airworthiness Limitations document.

## **Restatement of the Requirements of AD 2009-01-06, With No Changes**

### **Revised Initial Compliance Time**

(i) For Sub-tasks 28-00-00-02 and 28-00-00-03 ("Detailed Inspection of Outer and Inner Fuel Tank Harness Internal"), as identified in AvCraft TR ALD-028, dated October 15, 2003; or Section G, "Fuel Tank System Limitations," of the AvCraft Dornier 328JET ALD TM-ALD-010599-ALL, Revision 2, dated January 31, 2005; the initial compliance time is within 8 years after April 3, 2009. Thereafter, except as provided by paragraph (k) of this AD, these tasks must be accomplished at the repetitive interval specified in Section G, "Fuel Tank System Limitations," of the AvCraft Dornier 328JET ALD TM-ALD-010599-ALL, Revision 2, dated January 31, 2005.

### **No Alternative Inspections, Inspection Intervals, or Critical Design Configuration Control Limitations (CDCCLs)**

(j) After accomplishing the actions specified in paragraphs (f), (g), and (h), and the initial inspections in paragraph (i) of this AD, no alternative inspections, inspection intervals, or CDCCLs may be used unless the inspections, intervals, or CDCCLs are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (k) of this AD.

## **New Information**

### **Explanation of CDCCL Requirements**

Note 3: Notwithstanding any other maintenance or operational requirements, components that have been identified as airworthy or installed on the affected airplanes before the revision of the Airworthiness Limitations section, as required by paragraph (h) of this AD, do not need to be reworked in accordance with the CDCCLs. However, once the Airworthiness Limitations section has been revised, future maintenance actions on these components must be done in accordance with the CDCCLs.

## Alternative Methods of Compliance (AMOCs)

(k) 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. Send information to ATTN: Tom Groves, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1503; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

## Related Information

(l) European Aviation Safety Agency Airworthiness Directive 2006-0197 [Corrected], dated July 11, 2006, also addresses the subject of this AD.

## Material Incorporated by Reference

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

**Table 3 – All Material Incorporated by Reference**

<b>Service Information</b>	<b>Revision</b>	<b>Date</b>
AvCraft Service Bulletin SB-328J-00-197, including Price Information Sheet	Original	August 23, 2004
AvCraft Service Bulletin SB-328J-00-198, including Price Information Sheet	Original	August 23, 2004
AvCraft Temporary Revision ALD-028 to the AvCraft 328JET Airworthiness Limitations Document	Original	October 15, 2003
Section G of the AvCraft Dornier 328JET ALD TM-ALD-010599-ALL	2	January 31, 2005

(1) The Director of the Federal Register previously approved the incorporation by reference of Section G, "Fuel Tank System Limitations," of the AvCraft Dornier 328JET ALD TM-ALD-010599-ALL, Revision 2, dated January 31, 2005, on April 3, 2009 (74 FR 8853, February 27, 2009).

(2) The Director of the Federal Register previously approved the incorporation by reference of the service information identified in Table 4 of this AD on September 6, 2005 (70 FR 44046, August 1, 2005).

**Table 4 – Material Previously Incorporated by Reference on September 6, 2005**

<b>Service Information</b>	<b>Date</b>
AvCraft Service Bulletin SB-328J-00-197, including Price Information Sheet	August 23, 2004
AvCraft Service Bulletin SB-328J-00-198, including Price Information Sheet	August 23, 2004
AvCraft Temporary Revision ALD-028 to the AvCraft 328JET Airworthiness Limitations Document	October 15, 2003

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

(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 or 425-227-1152.

(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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on October 26, 2009.  
 Stephen P. Boyd,  
 Acting Manager, Transport Airplane Directorate,  
 Aircraft Certification Service.



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**2009-21-02 Airbus:** Amendment 39-16039. Docket No. FAA-2009-0324; Directorate Identifier 2008-NM-186-AD.

**Effective Date**

(a) This airworthiness directive (AD) is effective December 1, 2009.

**Affected ADs**

(b) This AD affects AD 2004-05-05, Amendment 39-13499.

**Applicability**

(c) This AD applies to Airbus Model A300 B4-601, B4-603, B4-605R, B4-620, B4-622, B4-622R, F4-605R, F4-622R, and C4-605R Variant F series airplanes, certificated in any category, equipped with Simmonds Precision Products, Inc., Fuel Quantity Indicating System sensors and in-tank harnesses installed in accordance with Supplemental Type Certificate (STC) ST00092BO.

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 (o) of this AD. The request should include a description of changes to the required inspections that will ensure the continued operational safety of the airplane.

**Subject**

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

**Unsafe Condition**

(e) This AD results from fuel system reviews conducted by the manufacturer. The Federal Aviation Administration is issuing this AD to reduce the potential of ignition sources inside fuel tanks, which in combination with flammable fuel vapors, could result in fuel tank fire or explosions and consequent loss of the airplane.

**Compliance**

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

## **Revision to the Airworthiness Limitations Section To Incorporate Inspections**

(g) Within 30 days after the effective date of this AD, revise the Airworthiness Limitations Section (ALS) of the Instructions for Continued Airworthiness to incorporate the inspections specified in Section 2.2.3 of the Goodrich A300-600 Instructions for Continued Airworthiness, Document T3012-0005-0101, Revision B, dated June 12, 2008.

## **Inspection for Correct Separation**

(h) Within 6 months after the effective date of this AD, do a general visual inspection for tank unit separation and compensator separation of the center, inner, and outer fuel tanks, and trim fuel tanks of the tank units, in accordance with Section 2.2.3 of the Goodrich A300-600 Instructions for Continued Airworthiness, Document T3012-0005-0101, Revision B, dated June 12, 2008. If incorrect separation is found, before further flight, correct the separation in accordance with the Airplane Maintenance Manual for the corresponding inspection specified in Section 2.2.3 of the Goodrich A300-600 Instructions for Continued Airworthiness, Document T3012-0005-0101, Revision B, dated June 12, 2008. A review of airplane maintenance records is acceptable in lieu of this inspection if the requirement of Table 6 in Section 10.1 of the Goodrich A300-600 Instructions for Continued Airworthiness, Document T3012-0005-0101, Revision B, dated June 12, 2008, can be conclusively determined to have been done from that review.

## **Revision to the ALS To Incorporate CDCCLs**

(i) Within 30 days after the effective date of this AD, revise the ALS of the Instructions for Continued Airworthiness to incorporate the CDCCLs, as defined in Section 10.1 of the Goodrich A300-600 Instructions for Continued Airworthiness, Document T3012-0005-0101, Revision B, dated June 12, 2008.

(j) Except as provided by paragraph (o) of this AD: After accomplishing the actions specified in paragraphs (g) and (i) of this AD, no alternative inspection, inspection intervals, or CDCCLs may be used.

Note 2: Notwithstanding any other maintenance or operational requirements, components that have been identified as airworthy or installed on the affected airplanes before the revision of the Airworthiness Limitations Section of the Instructions for Continuing Airworthiness, as required by paragraph (i) of this AD, do not need to be reworked in accordance with the CDCCLs. However, once the Airworthiness Limitations Section of the Instructions for Continuing Airworthiness has been revised, future maintenance actions on these components must be done in accordance with the CDCCLs.

## **Actions Done According to Previous Service Information**

(k) Inspections are acceptable for compliance with the requirements of paragraph (h) of this AD, if done before the effective date of this AD, in accordance with Goodrich Service Bulletin 300723-0101-28-01, dated April 15, 2004.

(l) Inspections are also acceptable for compliance with the requirements of paragraph (h) of this AD, if done before the effective date of this AD, in accordance with Goodrich Service Bulletin 300723-0101-28-01, Revision 1, dated July 1, 2004.

### **Acceptable Methods of Compliance for AD 2004-05-05**

(m) Doing the inspections in Section 2.2.3 of the Goodrich A300-600 Instructions for Continued Airworthiness, Document T3012-0005-0101, Revision B, dated June 12, 2008, is considered an acceptable method of compliance with paragraphs (b) and (c) of AD 2004-05-05.

(n) Doing the inspections in accordance with Goodrich Service Bulletin 300723-0101-28-01, Revision 1, dated July 1, 2004, is an acceptable method of compliance with paragraphs (b) and (c) of AD 2004-05-05.

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

(o)(1) The Manager, Boston Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Marc Ronell, Aerospace Engineer, ANE-150, FAA, Boston ACO, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone (781) 238-7776; fax (781) 238-7170.

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

### **Material Incorporated by Reference**

(p) You must use Goodrich A300-600 Instructions for Continued Airworthiness, Document T3012-0005-0101, Revision B, dated June 12, 2008, to do the actions required by this AD, unless the AD specifies otherwise. (The List of Effective Pages section of this document does not include pages iii, 6, 15, and 16 of this document. Those pages are also at Revision B, dated June 12, 2008.)

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

(2) For service information identified in this AD, contact Goodrich Corporation, Sensors and Integrated Systems (Formerly Fuel and Utility Systems), 100 Pantown Road, Vergennes, Vermont 05491-1008; telephone 802-877-4476; e-mail sis.techpubs-vt@goodrich.com; Internet <http://www.goodrich.com/TechPubs>.

(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 or 425-227-1152.

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

2009-21-02 4

Issued in Renton, Washington, on September 18, 2009.  
Ali Bahrami,  
Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2009-21-04 Rolls-Royce Deutschland Ltd & Co KG (formerly BMW Rolls-Royce GmbH and BMW Rolls-Royce Aero Engines):** Amendment 39-16041. Docket No. FAA-2009-0045; Directorate Identifier 2007-NE-53-AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective December 3, 2009.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Rolls-Royce Deutschland Ltd & Co KG model BR700-715A1-30, BR700-715B1-30, and BR700-715C1-30 turbofan engines. These engines are installed on, but not limited to, McDonnell Douglas 717-200 airplanes.

**Reason**

(d) Repair Scheme BRG3086 Issue 1 instructs the repair of the High-Pressure (HP) Compressor Front Drum Assembly Damping Grooves. This repair has an impact on the life of the HP Compressor Front Drum Assembly.

We are issuing this AD to prevent failure of front HP compressor rotors, which could result in an uncontained engine failure and damage to the airplane.

**Actions and Compliance**

(e) Remove the following HP Compressor drum assemblies from operation before reaching the life limit specified in Table 1 of this AD.

**Table 1 – Flight Cycle Life by Part Number, Serial Number, and Mission for Affected HP Compressor Rotor Front Disc Assemblies**

Disc Assembly Part No.	Serial No.	A1-30 Design	B1-30 and C1-30 Designs	A1-30 Hawaiian	C1-30 Tropical and Derated Tropical	C1-30 Derated Design
BRR21918	1,107	6,600	4,500	4,500	3,800	6,600
BRR21918	1,120	6,800	4,700	4,700	4,000	6,800
BRR21918	1,122	7,000	4,900	4,900	4,100	7,000
BRR21918	1,144	7,300	5,000	5,000	4,200	7,300
BRR21918	1,154	6,800	4,700	4,700	4,000	6,800
BRR21918	1,163	6,800	4,700	4,700	4,000	6,800
BRR21918	1,166	6,500	4,500	4,500	3,800	6,500
BRR21918	1,194	6,900	4,800	4,800	4,000	6,900
BRR21918	1,217	7,000	4,900	4,900	4,100	7,000
BRR21918	1,232	7,200	5,000	5,000	4,200	7,200
BRR21918	1,255	7,300	5,100	5,100	4,300	7,300
BRR21918	1,259	7,500	5,200	5,200	4,400	7,500
BRR21918	1,271	7,300	5,100	5,100	4,300	7,300
BRR21918	1,292	7,300	5,100	5,100	4,300	7,300

### Other FAA AD Provisions

(f) Alternative Methods of Compliance (AMOCs): 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

(g) Refer to MCAI Emergency Airworthiness Directive 2007-0050-E, dated February 26, 2007, and Rolls-Royce Deutschland Ltd & Co KG Alert Service Bulletin SB-BR700-72-A900437, Revision 2, dated September 17, 2009, for related information. Contact Rolls-Royce Deutschland Ltd & Co KG, Eschenweg 11, Dahlewitz, 15827 Blankenfelde-Mahlow, Germany; telephone 49 (0) 33-7086-1768; fax 49 (0) 33-7086-3356, or go to: <http://www.rolls-royce.com/deutschland/en/default.htm>, for a copy of this service information.

(h) Contact Jason Yang, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail [jason.yang@faa.gov](mailto:jason.yang@faa.gov); telephone (781) 238-7747; fax (781) 238-7199, for more information about this AD.

Issued in Burlington, Massachusetts, on October 1, 2009.  
Peter A. White,  
Assistant Manager, Engine and Propeller Directorate,  
Aircraft Certification Service.



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**2009-21-07 General Electric Company:** Amendment 39-16044. Docket No. FAA-2009-0018; Directorate Identifier 2009-NE-01-AD.

### **Effective Date**

(a) This airworthiness directive (AD) becomes effective December 1, 2009.

### **Affected ADs**

(b) None.

### **Applicability**

(c) This AD applies to General Electric Company (GE) CF6-80C2 series turbofan engines with thrust reverser ballscrew gearbox assembly adjustable-length end actuators having 3/8-inch rod-ends installed. These engines are installed on, but not limited to, Airbus A300-600/R/F and A310-200/300, and Boeing 747-200B/300/400/400D/400F, 767-200/300/300F/400ER, and MD-11 airplanes.

### **Unsafe Condition**

(d) This AD results from reports of four failures of rod-ends on certain thrust reverser ballscrew gearbox assembly adjustable-length end actuators, leading to partial or complete separation of the transcowl from the engine and airplane during thrust reversal. We are issuing this AD to prevent loss of asymmetric thrust and thrust control.

### **Compliance**

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

### **Visual Inspection and Fastening Hardware Replacements**

(f) Within 500 flight cycles after the effective date of this AD, do the following:

(1) Inspect all translating cowl clevis pin retaining clips and associated fastening hardware, including those on the center drive unit (CDU), to ensure they are properly assembled and securely fastened in place. If a retaining clip is not completely covering the clevis pin and firmly attached to the clevis, remove and replace the fastening hardware. Use paragraphs 3.B.(1) and 3.B.(2), excluding 3.B.(2)(a), of Middle River Aircraft Systems (MRAS) Alert Service Bulletin (ASB) No. CF6-80C2 S/B 78A1162, Revision 3, dated September 10, 2009, to do the inspections.

(2) Remove and inspect all clevis pins for physical damage or significant corrosion. Use paragraphs 3.C.(1) through 3.C.(3), excluding the recording requirement in paragraph 3.C.(3)(b) of

MRAS ASB No. CF6-80C2 S/B 78A1162, Revision 3, dated September 10, 2009, to do the removals, inspections, and part disposition as necessary.

(3) Inspect the clevis assemblies and four clevis fasteners at each of the clevis assemblies (upper, center, and lower) for structural integrity. Use paragraphs 3.F.(1), excluding 3.F.(1)(c) of MRAS ASB No. CF6-80C2 S/B 78A1162, Revision 3, dated September 10, 2009, to do the inspections.

(4) If loose or missing clevis fasteners are found, remove and replace the clevis fasteners, or defer the repair and deactivate the thrust reverser. Use paragraph 3.F.(2) of MRAS ASB No. CF6-80C2 S/B 78A1162, Revision 3, dated September 10, 2009, to do the replacements.

### **Initial Rod-End Replacements**

(g) For all 3/8-inch translating cowl adjustable-length actuator rod-ends having more than 600 flight cycles-since-new on the effective date of this AD, replace them with P/N M81935/1-6, or other approved part number, zero time rod-ends within 500 flight cycles after the effective date of this AD. Use paragraph 3.E., excluding both 3.E.(8) and the recording requirement in paragraph 3.E.(5) of MRAS ASB No. CF6-80C2 S/B 78A1162, Revision 3, dated September 10, 2009, to do the replacements.

### **Repetitive 3/8-Inch Rod-End Replacements**

(h) Repetitively replace the 3/8-inch translating cowl adjustable-length actuator rod-ends that were installed as specified in paragraph (g) of this AD, before they accumulate 11,000 flight cycles, with a zero time 3/8-inch adjustable-length rod-end, P/N M81935/1-6 or other approved part number. Since the rod-ends are not serialized, track their life by using the associated actuator assembly's life. Use paragraphs 3.E., excluding both paragraph 3.E.(8) and the recording requirement in paragraph 3.E.(5), of MRAS ASB No. CF6-80C2 S/B 78A1162, Revision 3, dated September 10, 2009, to do the replacements.

### **Optional Terminating Action**

(i) As an optional terminating action to the repetitive 3/8-inch rod-end replacements required by this AD, replace the 3/8-inch adjustable rod-ends with a 7/16-inch adjustable rod-end and nut or you may replace the adjustable end actuator with a fixed end actuator. Use paragraph 3.E.(1) of MRAS ASB No. CF6-80C2 S/B 78A1162, Revision 3, dated September 10, 2009, to do the replacements.

### **Installation Prohibition**

(j) After the effective date of this AD, do not install rod-ends P/Ns KBE6-59, MS2124S06, B15946-13 or 15946000-13, on any engine subject to this AD. Rod-ends removed to comply with this AD are not eligible for installation on any aircraft.

### **Previous Credit**

(k) Inspections and replacements and optional terminating action performed before the effective date of this AD using MRAS ASB No. CF6-80C2 S/B 78A1162, dated December 30, 2008; Revision 1, dated February 13, 2009; or Revision 2, dated June 22, 2009, satisfy the required initial actions and optional terminating action of this AD.

## **Alternative Methods of Compliance**

(l) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

## **Related Information**

(m) Contact Christopher J. Richards, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: christopher.j.richards@faa.gov; telephone (781) 238-7133; fax (781) 238-7199, for more information about this AD.

## **Material Incorporated by Reference**

(n) You must use Middle River Aircraft Systems Alert Service Bulletin No. CF6-80C2 S/B 78A1162, Revision 3, dated September 10, 2009, to perform the actions required by this AD. The Director of the Federal Register approved the incorporation by reference of this service bulletin in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Middle River Aircraft Systems, 103 Chesapeake Park Plaza, MF 46, Baltimore, MD 21220; telephone (410) 682-0080; fax (410) 682-0100; or e-mail: bulletins@mras-usa.com, for a copy of this service information. You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Burlington, Massachusetts, on October 2, 2009.

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



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**2009-21-12 Airbus:** Amendment 39-16051. Docket No. FAA-2008-0979; Directorate Identifier 2008-NM-079-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective December 1, 2009.

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to Airbus Model A300 B4-601, B4-603, B4-605R, B4-620, B4-622, B4-622R, F4-605R, F4-622R, C4-605R Variant F airplanes, all serial numbers, certificated in any category; on which Smith spoiler actuators having part number (P/N) P376A0002-05, -06, -07, or -09, or P/N P725A0001-00 are installed.

**Subject**

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

**Reason**

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

Further to initial qualification tests of the spoiler actuators currently installed in position No. 3 to 7 on A300-600 and A300-600ST aircraft fleet, a life limit [of 55,750 flight hours] has been defined by the actuator manufacturer. Initially, this life limit had no repercussions, as it was situated well beyond the initial Design Service Goal (DSG) of the aircraft. However, due to the Extended Service Goal (ESG) activities, the spoiler actuator life limit can be reached in service, and therefore the spoiler actuators must be replaced before exceeding this limit.

In order to mitigate the risk to have aircraft on which the three hydraulic circuits would be impacted by affected spoiler actuators, which could result in the loss of controllability of the aircraft, this Airworthiness Directive (AD) requires actions to ensure that at least the level of safety of one hydraulic circuit will be restored within an acceptable timeframe.

EASA AD 2007-0245, issued on 05 September 2007 as an interim action, is superseded by the present [EASA] AD.

Corrective actions include replacing the spoiler actuator with a serviceable unit.

### **Actions and Compliance**

(f) Unless already done: Within 700 flight hours after the effective date of this AD, do the following actions.

(1) Identify the total flight hours accumulated on each spoiler actuator at positions 3 through 7 on the left- and right-hand sides of the airplane (FIN 22CP/23CP, 24CP/25CP, 26CP/27CP, 60CP/61CP, and 62CP/63CP), in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A300-27A6062, dated July 6, 2007.

Note 1: Smiths Service Information Letters SIL 27-01, dated June 2007; and SIL 27-02, dated May 2007; may be used as additional sources of guidance to identify the total flight hours accumulated on each spoiler actuator.

(2) For airplanes on which the status of any spoiler actuator is unknown (unknown number of accumulated flight hours, unknown date of manufacture, and/or unknown serial number) the actuator must be considered as having exceeded 55,750 total flight hours.

(3) For airplanes on which all three hydraulic circuits have a spoiler actuator that has accumulated or exceeds 55,000 total flight hours: Before the accumulation of 55,750 total flight hours or within 700 flight hours after the effective date of this AD, whichever occurs later, on at least one hydraulic circuit, interchange the spoiler actuator with a serviceable unit from another hydraulic circuit, or replace the spoiler actuator with a serviceable unit, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A300-27-6060, dated February 18, 2008.

(4) For airplanes on which the actions required by paragraph (f)(1) of this AD, and, as applicable, paragraph (f)(3) of this AD have been accomplished, each airplane must continue to have at least one hydraulic circuit fitted with spoiler actuators that do not exceed 55,750 total flight hours.

Note 2: For the purposes of this AD, a serviceable unit is a unit that has accumulated less than 55,750 flight hours.

(5) The operator must not interchange or replace spoiler actuators on more than two hydraulic circuits at the same time. This will mitigate the risk of having a malfunction on the three hydraulic systems at the same time.

### **FAA AD Differences**

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

This AD does not include the reporting requirement specified in paragraph (1) of the MCAI. The MCAI carried this requirement forward from European Aviation Safety Agency (EASA) Airworthiness Directive 2007-0245, dated September 5, 2007. We previously determined that no action was required on our part regarding EASA AD 2007-0245.

## Other FAA AD Provisions

(g) 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. Send information to ATTN: Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-2125; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(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

(h) Refer to MCAI EASA Airworthiness Directive 2008-0058, dated March 20, 2008; and Airbus Mandatory Service Bulletin A300-27-6060, dated February 18, 2008; and Airbus Mandatory Service Bulletin A300-27A6062, dated July 6, 2007; for related information.

## Material Incorporated by Reference

(i) You must use Airbus Mandatory Service Bulletin A300-27-6060, excluding Appendix 1, dated February 18, 2008; and Airbus Mandatory Service Bulletin A300-27A6062, excluding Appendix 1, dated July 6, 2007; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

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

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

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

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

Issued in Renton, Washington, on October 7, 2009.

Jeffrey E. Duven,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



**2009-22-01 Rolls-Royce Deutschland Ltd & Co KG (RRD) (formerly Rolls-Royce plc, Derby, England):** Amendment 39-16052. Docket No. FAA-2007-0037; Directorate Identifier 2007-NE-41-AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective November 12, 2009.

**Affected ADs**

(b) This AD supersedes AD 2008-10-14, Amendment 39-15521.

**Applicability**

(c) This AD applies to RRD Tay 650-15 turbofan engines that have a serial number listed in Table 1 or Table 2 of this AD, and low-pressure (LP) turbine module M05300AA installed. These engines are installed on, but not limited to, Fokker F28 Mark 0100 airplanes.

**Table 1 – Affected Tay 650-15 Engines by Serial Number  
(Carried Forward From AD 2008-10-14)**

<b>Engine Serial Number</b>
17251
17255
17256
17273
17275
17280
17281
17282
17300
17301
17327
17332
17365

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17393
17437
17443
17470
17520
17521
17523
17539
17542
17556
17561
17562
17563
17580
17581
17612
17618
17635
17637
17645
17661
17686
17699
17701
17702
17736
17737
17738
17739
17741
17742
17808

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**Table 2 – Affected Tay 650-15 Engines by Serial Number (Added New in This AD)**

<b>Engine Serial Number</b>
17249
17303
17358
17370
17425
17426
17433
17438
17445
17446
17460
17474
17478
17490
17491
17517
17518
17522
17534
17535
17536
17538
17540
17541
17552
17553
17585
17613
17723

17724
17740
17759
17760
17807

## Reason

(d) Strip results from some of the engines listed in the applicability section of this directive revealed excessively corroded low-pressure turbine disks stage 2 and stage 3. The corrosion is considered to be caused by the environment in which these engines are operated. Following a life assessment based on the strip findings it is concluded that inspections for corrosion attack are required. The action specified by this AD is intended to avoid a failure of a low-pressure turbine disk stage 2 or stage 3 due to potential corrosion problems which could result in uncontained engine failure and damage to the airplane.

We are issuing this AD to detect corrosion that could cause the stage 2 or stage 3 disk of the LP turbine to fail and result in an uncontained failure of the engine.

## Actions and Compliance

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

(1) Prior to accumulating 11,700 flight cycles (FC) since new, and thereafter at intervals not exceeding 11,700 FC of the engine, inspect the LP turbine disks stage 2 and stage 3 for corrosion in accordance with RRD Alert Service Bulletin No. TAY-72-A1524, Revision 2, dated June 13, 2008.

(2) For engines that already exceed 11,700 FC on the effective date of this AD, perform the inspection within 90 days after the effective date of this AD.

(3) When, during any of the inspections as required by paragraph (e)(1) of this directive, corrosion is found, replace the affected parts. The RRD TAY 650 Engine Manual–E-TAY-3RR, Tasks 72-52-23-200-000 and 72-52-24-200-000 contains guidance on performing the inspection for corrosion and rejection criteria.

## Previous Credit

(f) Initial inspections done before the effective date of this AD on LP turbine disks stage 2 and stage 3 listed in Table 1 of this AD using RRD Alert Service Bulletin No. TAY-72-A1524, Revision 1, dated September 1, 2006, comply with the initial inspection requirements specified in this AD.

## Alternative Methods of Compliance (AMOCs)

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

**Related Information**

(h) Refer to European Aviation Safety Agency AD 2008-0122, dated July 1, 2008, for related information.

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

**Material Incorporated by Reference**

(j) You must use Rolls-Royce Deutschland Alert Service Bulletin No. TAY-72-A1524, Revision 2, dated June 13, 2008, to do the actions required by this AD.

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

(2) For service information identified in this AD, contact Rolls-Royce Deutschland Ltd & Co KG, Eschenweg 11, Dahlwitz, 15827 Blankenfelde-Mahlow, Germany; telephone 49 (0) 33-7086-1768; fax 49 (0) 33-7086-3356.

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

Issued in Burlington, Massachusetts, on October 8, 2009.

Diane S. Romanosky,  
Acting Manager, Engine and Propeller Directorate,  
Aircraft Certification Service.



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**2009-22-06 International Aero Engines AG:** Amendment 39-16057. Docket No. FAA-2009-0294; Directorate Identifier 2009-NE-08-AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective November 30, 2009.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to International Aero Engines AG (IAE) V2500-A1, V2527E-A5, V2530-A5, and V2528-D5 turbofan engines. These engines are installed on, but not limited to, Airbus A320 and A321 series, and McDonnell Douglas Corporation MD-90 airplanes.

**Unsafe Condition**

(d) This AD results from IAE updating the low-cycle-fatigue (LCF) life analysis for certain high-pressure compressor (HPC) stage 9-12 disc assemblies. We are issuing this AD to prevent an uncontained failure of the HPC stage 9-12 disc assembly, resulting in an in-flight engine shutdown and possible damage to the airplane.

**Compliance**

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

**V2500-A1 Turbofan Engines**

(f) For V2500-A1 turbofan engines with HPC stage 9-12 disc assemblies, P/N 2A3200, 2A3300, 2A3400, 2A3500, 6A4131, and 6A7545, installed, remove from service as follows:

(1) For HPC stage 9-12 disc assemblies that have accumulated fewer than 12,000 cycles-since-new (CSN) on the effective date of this AD, remove from service before the disc assembly accumulates 14,600 CSN.

(2) For HPC stage 9-12 disc assemblies that have accumulated 12,000 or more CSN but fewer than 14,600 CSN on the effective date of this AD:

(i) If the next engine shop visit will occur before accumulating 14,600 CSN, then remove from service before accumulating 14,600 CSN.

(ii) If the next engine shop visit will occur upon accumulating 14,600 or more CSN, then remove from service at the next engine shop visit but not to exceed 15,000 CSN.

(3) For HPC stage 9-12 disc assemblies that have accumulated 14,600 or more CSN on the effective date of this AD, remove from service at the next engine shop visit but not to exceed 15,000 CSN.

### **V2527E-A5 and V2530-A5 Turbofan Engines**

(g) For V2527E-A5 and V2530-A5 turbofan engines with HPC stage 9-12 disc assemblies, P/N 6A4156 and 6A7547 installed, remove from service as follows:

(1) For HPC stage 9-12 disc assemblies that have accumulated fewer than 9,000 CSN on the effective date of this AD, remove from service before the disc assembly accumulates 11,800 CSN.

(2) For HPC stage 9-12 disc assemblies that have accumulated 9,000 or more CSN but fewer than 11,800 CSN on the effective date of this AD:

(i) If the next engine shop visit will occur before accumulating 11,800 CSN, then remove from service before accumulating 11,800 CSN.

(ii) If the next engine shop visit will occur upon accumulating 11,800 or more CSN, then remove from service at the next engine shop visit but not to exceed 12,000 CSN.

(3) For HPC stage 9-12 disc assemblies that have accumulated 11,800 or more CSN on the effective date of this AD, remove from service at the next engine shop visit but not to exceed 12,000 CSN.

### **V2528-D5 Turbofan Engines**

(h) For V2528-D5 turbofan engines with HPC stage 9-12 disc assemblies, P/N 6A4156 and 6A7547 installed, remove from service as follows:

(1) For HPC stage 9-12 disc assemblies that have accumulated fewer than 9,000 CSN on the effective date of this AD, remove from service before the disc assembly accumulates 11,800 CSN.

(2) For HPC stage 9-12 disc assemblies that have accumulated 9,000 or more CSN but fewer than 11,800 CSN on the effective date of this AD:

(i) If the next engine shop visit will occur before accumulating 11,800 CSN, then remove from service before accumulating 11,800 CSN.

(ii) If the next engine shop visit will occur upon accumulating 11,800 or more CSN, then remove from service at the next engine shop visit but not to exceed 13,200 CSN.

(3) For HPC stage 9-12 disc assemblies that have accumulated 11,800 or more CSN on the effective date of this AD, remove from service at the next engine shop visit but not to exceed 13,200 CSN.

### **Definition**

(i) For the purpose of this AD, an "engine shop visit" is the induction of an engine into the shop for maintenance involving the separation of pairs of major mating engine flanges except that the separation of engine flanges solely for the purposes of transportation without subsequent engine maintenance does not constitute an engine shop visit.

**Alternative Methods of Compliance**

(j) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

**Related Information**

(k) IAE Alert Service Bulletin No. V2500-ENG-72-A0554, Revision 1, dated June 27, 2008, also pertains to the subject of this AD. Contact International Aero Engines AG, 400 Main Street, East Hartford, CT 06108; telephone: (860) 565-5515; fax: (860) 565-5510, for a copy of this service information.

(l) Contact Kevin Dickert, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: Kevin.dickert@faa.gov; telephone (781) 238-7117; fax (781) 238-7199, for more information about this AD.

**Material Incorporated by Reference**

(m) None.

Issued in Burlington, Massachusetts, on October 16, 2009.  
Robert J. Ganley,  
Acting Manager, Engine and Propeller Directorate,  
Aircraft Certification Service.



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**2009-22-07 Saab AB, Saab Aerosystems:** Amendment 39-16058. Docket No. FAA-2009-0654; Directorate Identifier 2008-NM-083-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective December 3, 2009.

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to Saab AB, Saab Aerosystems Model SAAB 2000 airplanes, certificated in any category, serial numbers 004 through 063 inclusive.

**Subject**

- (d) Air Transport Association (ATA) of America Code 79: Engine oil.

**Reason**

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

There have been reported incidents of brinelling to the self-sealing coupling Part Number (P/N) 9304000-303 (Nipple Assembly). The wear is visible in the groove of the nipple, caused by the socket locking balls. During tear down investigations of self-sealing coupling P/N 9304000-305 (Socket Assembly), internal socket wear has been observed. Wear that exceeds the allowable limits could lead to reduced oil flow, and further wear could contribute to separation of the Self-Seal Coupling, making the engine inoperable and subsequent shut down. As secondary damage, the generator may fail, releasing oil into the nacelle and increasing the possibility of fire.

For the reason described above, this Airworthiness Directive (AD) requires the inspection of the affected nipple- and socket assemblies and, if wear is found outside the specified limits, replacement of worn parts.

**Actions and Compliance**

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

(1) Within 12 months after the effective date of this AD: Inspect the affected nipple assembly part number (P/N) 9304000-303 and socket assembly P/N 9304000-305 for signs of damage, wear, and leaking of the nipple and socket, in accordance with the Accomplishment Instructions of Saab Service Bulletin 2000-79-006, Revision 01, dated October 15, 2007. Repeat the inspection thereafter at intervals not to exceed 4,000 flight hours.

(2) If any wear is found during any inspection required by paragraph (f)(1) of this AD that is beyond the limits specified in Saab Service Bulletin 2000-79-006, Revision 01, dated October 15, 2007, prior to further flight, replace the part with a new or serviceable unit having the same part number, in accordance with Saab Service Bulletin 2000-79-006, Revision 01, dated October 15, 2007.

(3) If any leak or damage is found during any inspection required by paragraph (f)(1) of this AD, prior to further flight, replace the part with a new or serviceable unit having the same part number in accordance with step 2.C.(1)(a)6 or step 2.C.(1)(a)10, as applicable, of Saab Service Bulletin 2000-79-006, Revision 01, dated October 15, 2007.

(4) Replacement of parts does not constitute terminating action for the inspection requirements of this AD.

### **FAA AD Differences**

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

### **Other FAA AD Provisions**

(g) 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. Send information to ATTN: Shahram Daneshmandi, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1112; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office.

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

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

### **Related Information**

(h) Refer to MCAI European Aviation Safety Agency Airworthiness Directive 2008-0030, dated February 15, 2008; and Saab Service Bulletin 2000-79-006, Revision 01, dated October 15, 2007; for related information.

## **Material Incorporated by Reference**

(i) You must use Saab Service Bulletin 2000-79-006, Revision 01, dated October 15, 2007, 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 Saab Aircraft AB, SAAB Aerosystems, SE-581 88, Linköping, Sweden; telephone +46 13 18 5591; fax +46 13 18 4874; e-mail [saab2000.techsupport@saabgroup.com](mailto:saab2000.techsupport@saabgroup.com); Internet <http://www.saabgroup.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 or 425-227-1152.

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

Issued in Renton, Washington, on October 19, 2009.

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



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**2009-22-08 Boeing:** Amendment 39-16059. Docket No. FAA-2008-1326; Directorate Identifier 2008-NM-141-AD.

**Effective Date**

(a) This airworthiness directive (AD) is effective December 3, 2009.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Boeing Model 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 airplanes, certificated in any category, as identified in Boeing Special Attention Service Bulletin 747-52-2286, dated September 28, 2007; and Boeing Model 757-200, -200PF, and -300 series airplanes, certificated in any category, as identified in Boeing Special Attention Service Bulletin 757-52-0090, dated September 21, 2007.

**Unsafe Condition**

(d) This AD results from reports of problems associated with the uncommanded operation of cargo doors. We are issuing this AD to prevent injuries to persons and damage to the airplane and equipment.

**Compliance**

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

**Replacement**

(f) Within 24 months after the effective date of this AD, replace the control switches as specified in paragraph (f)(1) or (f)(2) of this AD, as applicable. Repeat the replacements thereafter at intervals not to exceed 72 months.

(1) For Model 747 airplanes: Replace the control switches of the forward, aft, and nose cargo doors, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-52-2286, dated September 28, 2007.

(2) For Model 757 series airplanes: Replace the control switches of cargo doors 1 and 2, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-52-0090, dated September 21, 2007.

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

(g)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to Attn: ATTN: Patrick Gillespie, Aerospace Engineer, Cabin Safety and Environmental Systems Branch, ANM-150S, FAA, Seattle ACO, 1601 Lind Avenue, SW., Renton, Washington.

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

### **Material Incorporated by Reference**

(h) You must use Boeing Special Attention Service Bulletin 747-52-2286, dated September 28, 2007; or Boeing Special Attention Service Bulletin 757-52-0090, dated September 21, 2007; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

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

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

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

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

Issued in Renton, Washington, on October 19, 2009.  
Ali Bahrami,  
Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2009-22-09 Bombardier (Formerly Canadair):** Amendment 39-16060. Docket No. FAA-2009-0399; Directorate Identifier 2008-NM-226-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective December 3, 2009.

**Affected ADs**

- (b) None.

**Applicability**

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

(1) Bombardier Model CL-600-2C10 (Regional Jet Series 700, 701 & 702), serial numbers 10112 through 10199 inclusive, and 10201 through 10206 inclusive.

(2) Bombardier Model CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900), serial numbers 15007 through 15026 inclusive, 15030, and 15031.

**Subject**

- (d) Air Transport Association (ATA) of America Code 49: Airborne Auxiliary Power.

**Reason**

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

A change in dimensions of the fuse blocks in the Auxiliary Power Unit (APU) Start Contactor Assembly (ASCA) box assembly can cause an incorrect interface between the bus bars and fuses. This condition can result in an increase in temperature, which could damage the ASCA box and/or compromise the availability of battery bus supply.

The unsafe condition could result in the ignition of a fire in the ASCA box. The required actions include inspecting the ASCA boxes to determine the part number; and for certain ASCA boxes, doing a detailed inspection of the fuse block date code, and replacing the fuse block with new hardware if necessary.

**Actions and Compliance**

- (f) Unless already done, do the following actions:

(1) Within 1,500 flight hours after the effective date of this AD, inspect the ASCA box to determine the part number and, for ASCA boxes having part number (P/N) BA670-53328-1 or BA670-53328-951, perform a detailed inspection of the fuse block date code, in accordance with Bombardier Service Bulletin 670BA-49-012, Revision A, dated August 28, 2008. Before further flight, replace all fuse blocks that have a date code between K23 (0323) through M08 (0508) inclusive, in accordance with Bombardier Service Bulletin 670BA-49-012, Revision A, dated August 28, 2008. A review of airplane maintenance records is acceptable in lieu of the inspection to determine the part number of the ASCA boxes if the part number of the ASCA boxes can be conclusively determined from that review.

(2) Inspections and replacement actions are also acceptable for compliance with the requirements of paragraph (f)(1) of this AD, if done before the effective date of this AD in accordance with Bombardier Service Bulletin 670BA-49-012, dated June 28, 2007.

### **FAA AD Differences**

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

### **Other FAA AD Provisions**

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, Systems and Flight Test Branch, ANE-172, 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: Wing Chan, Aerospace Engineer, Avionics and Flight Test Branch, ANE-172, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7311; fax (516) 794-5531. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office.

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

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act, the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

### **Related Information**

(h) Refer to MCAI Transport Canada Civil Aviation Airworthiness Directive CF-2008-34, dated December 2, 2008; and Bombardier Service Bulletin 670BA-49-012, Revision A, dated August 28, 2008; for related information.

### **Material Incorporated by Reference**

(i) You must use Bombardier Service Bulletin 670BA-49-012, Revision A, dated August 28, 2008, 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., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; e-mail [thd.crj@aero.bombardier.com](mailto:thd.crj@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 or 425-227-1152.

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

Issued in Renton, Washington, on October 19, 2009.

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



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**2009-22-12 Bombardier, Inc. (Formerly Canadair):** Amendment 39-16065. Docket No. FAA-2009-0998; Directorate Identifier 2009-NM-198-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective November 13, 2009.

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to Bombardier Model CL-600-2C10 (Regional Jet Series 700, 701 & 702) airplanes, Model CL-600-2D15 (Regional Jet Series 705) airplanes, and Model CL-600-2D24 (Regional Jet Series 900) airplanes; certificated in any category, that are equipped with Thales angle of attack (AOA) transducers having part number C16258AA.

**Subject**

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

**Reason**

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

The heating capability of several [angle of attack] AOA transducer heating elements removed from in-service aircraft has been found to be below the minimum requirement. Also, it was discovered that a large number of AOA transducers repaired in an approved maintenance facility were not calibrated accurately.

Inaccurate calibration of the AOA transducer and/or degraded AOA transducer heating elements can result in early or late activation of the stall warning, stick shaker and stick pusher by the Stall Protection Computer (SPC).

This [Canadian] directive mandates a periodic inspection of the inrush current to verify the AOA heating capability and replacement of the inaccurately calibrated AOA transducers.

Inaccurate calibration of the AOA transducers and/or degraded AOA transducer heating elements could result in ineffective response to aerodynamic stall and reduced controllability of the airplane.

## Actions and Compliance

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

(1) Within the applicable compliance times specified in Table 1 of this AD: Measure the inrush current of both AOA transducers, in accordance with Part A of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-27-051, dated May 14, 2009.

**Table 1 - Initial Measurement**

<b>For any AOA Transducer that, as of the Effective Date of This AD, has Accumulated –</b>	<b>Do the Initial Inrush Current Measurement –</b>
Less than 6,500 total flight hours	Before the AOA transducer has accumulated 7,500 total flight hours.
More than or equal to 6,500 total flight hours but less than 7,500 total flight hours	Within 500 flight hours after the effective date of this AD but before the AOA transducer has accumulated 8,000 total flight hours.
More than or equal to 7,500 total flight hours	Within 250 flight hours after the effective date of this AD.

(2) If, during any measurement required by paragraph (f)(1) of this AD, an AOA transducer is found to have an inrush current less than 1.60 amps ("degraded" transducer), before further flight replace the transducer with a new or serviceable transducer, in accordance with Part C of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-27-051, dated May 14, 2009. Do the measurement specified in paragraph (f)(1) of this AD for that replacement transducer at the times specified in (f)(2)(i) or (f)(2)(ii) of this AD.

(i) At the applicable time specified in Table 2 of this AD if the degraded transducer was replaced with a serviceable transducer that is not new; or

(ii) Within 2,000 flight hours after replacement if the degraded transducer was replaced with a new one.

(3) If, during any measurement required by paragraph (f)(1) of this AD, an AOA transducer is found to have an inrush current more than or equal to 1.60 amps, repeat the measurement specified in paragraph (f)(1) of this AD thereafter at intervals not to exceed the applicable interval specified in Table 2 of this AD.

**Table 2- Repetitive Measurement Intervals**

<b>If the Last Inrush Current Measurement of the Serviceable AOA transducer is -</b>	<b>Then Repeat the Measurement -</b>
More than or equal to 1.90 amps	Within 2,000 flight hours after the last measurement.
More than or equal to 1.80 amps but less than 1.90 amps	Within 1,500 flight hours after the last measurement.
More than or equal to 1.70 amps but less than 1.80 amps	Within 1,000 flight hours after the last measurement.
More than or equal to 1.60 amps but less than 1.70 amps	Within 500 flight hours after the last measurement.

**FAA AD Differences**

Note: This AD differs from the MCAI and/or service information as follows: This AD does not require the one-time inspection for serial numbers and on-condition replacement in Paragraph 1. of the MCAI. The planned compliance times for this action would allow enough time to provide notice and opportunity for prior public comment on the merits of those actions. Therefore, we are considering further rulemaking to address this issue.

**Other FAA AD Provisions**

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to Attn: Wing Chan, Aerospace Engineer, Avionics and Flight Test Branch, ANE-172, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7311; fax (516) 794-5531. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

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

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

## **Related Information**

(h) Refer to MCAI Canadian Airworthiness Directive CF-2009-35, dated August 31, 2009; and Bombardier Service Bulletin 670BA-27-051, dated May 14, 2009; for related information.

## **Material Incorporated by Reference**

(i) You must use Bombardier Service Bulletin 670BA-27-051, dated May 14, 2009, to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For 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.crj@aero.bombardier.com](mailto:thd.crj@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 or 425-227-1152.

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

Issued in Renton, Washington, on October 16, 2009.

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



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**2009-22-13 Boeing:** Amendment 39-16066. Docket No. FAA-2009-0314; Directorate Identifier 2008-NM-196-AD.

**Effective Date**

(a) This airworthiness directive (AD) is effective December 3, 2009.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Boeing Model 767-200, -300, -300F, and -400ER series airplanes, certificated in any category; as identified in Boeing Alert Service Bulletin 767-28A0090, dated July 3, 2008.

**Unsafe Condition**

(d) This AD results from fuel system reviews conducted by the manufacturer. We are issuing this AD to prevent an ignition source inside the fuel tanks, which, in combination with flammable fuel vapors, could result in a fuel tank explosion and consequent loss of the airplane.

**Compliance**

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

**Subject**

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

**Inspection and Related Investigative/Corrective Actions**

(g) Within 60 months after the effective date of this AD, do the actions in paragraphs (g)(1) and (g)(2) of this AD.

(1) Inspect the motor operated valves (MOVs) in the main and center fuel tanks to determine if any MOV having part number (P/N) MA20A1001-1 is installed, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 767-28A0090, dated July 3, 2008. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number can be conclusively determined from that review.

(2) Do all applicable related investigative and corrective actions specified in and in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 767-28A0090, dated July 3, 2008, except as provided by paragraph (h) of this AD.

### **Alternative Part Numbers**

(h) Where Boeing Alert Service Bulletin 767-28A0090, dated July 3, 2008, specifies replacing any actuator having P/N MA20A1001-1 with a new actuator having P/N MA30A1001, a serviceable actuator having any of the following part numbers is also acceptable as a replacement part: MA30A1001; MA20A2027 (S343T003-56); MA11A1265-1 (S343T003-41); or AV-31-1 (S343T003-111).

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

(i)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Douglas Bryant, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6505; fax (425) 917-6590.

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

### **Material Incorporated by Reference**

(j) You must use Boeing Alert Service Bulletin 767-28A0090, dated July 3, 2008, 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 Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet <https://www.myboeingfleet.com>.

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

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

Issued in Renton, Washington, on October 19, 2009.  
Ali Bahrami,  
Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2009-22-14 Boeing:** Amendment 39-16067. Docket No. FAA-2008-1362; Directorate Identifier 2008-NM-150-AD.

**Effective Date**

(a) This airworthiness directive (AD) is effective December 8, 2009.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Boeing Model 747-200C and 747-200F series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 747-25A3431, dated March 6, 2008.

**Unsafe Condition**

(d) This AD results from reports of water contamination in the electrical/electronic units in the main equipment center. We are issuing this AD to prevent water contamination in the electrical/electronic units in the main equipment center, which could result in an electrical short and potential loss of several functions essential for safe flight.

**Compliance**

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

**Installation of Shrouds and Drain Lines**

(f) Within 72 months after the effective date of this AD, install larger moisture shrouds and additional drain lines, by doing all the applicable actions specified in the Accomplishment Instructions of Boeing Alert Service Bulletin 747-25A3431, dated March 6, 2008.

**Installation of Moisture Curtains**

(g) Prior to or concurrently with accomplishing the actions required by paragraph (f) of this AD: Install protective moisture curtains in the main equipment center in accordance with Boeing Service Bulletin 747-25A3430, Revision 1, dated October 9, 2008.

Note 1: The installation required by paragraph (g) of this AD is the same installation required by paragraph (f) of AD 2007-26-03, amendment 39-15305, for Boeing Model 747-200C and -200F series airplanes (AD 2007-26-03 specifies that the actions be done in accordance with Boeing Alert Service Bulletin 747-25A3430, dated February 15, 2007). Boeing Service Bulletin 747-25A3430, Revision 1, dated October 9, 2008, which affects Boeing Model 747-200F airplanes, variable numbers RR566 and RR551 through RR556 inclusive, is an alternative method of compliance for the

requirements of paragraph (g) of AD 2007-26-03. Airplanes identified as Group 1, Group 3, and Group 6 airplanes in Boeing Service Bulletin 747-25A3430, Revision 1, dated October 9, 2008, must comply with paragraph (g) of AD 2007-26-03.

### **Installations Accomplished According to Previous Issue of Service Bulletin**

(h) Installations accomplished before the effective date of this AD in accordance with Boeing Alert Service Bulletin 747-25A3430, dated February 15, 2007, are considered acceptable for compliance with the corresponding action, paragraph (g) of this AD.

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

(i)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Marcia Smith, Aerospace Engineer, Cabin Safety and Environmental Systems Branch, ANM-150S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6484; fax (425) 917-6590. Or, e-mail information to 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

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

### **Material Incorporated by Reference**

(j) You must use Boeing Alert Service Bulletin 747-25A3431, dated March 6, 2008; and Boeing Service Bulletin 747-25A3430, Revision 1, dated October 9, 2008; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

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

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

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

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

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