

**FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES**

**LARGE AIRCRAFT
BIWEEKLY 2013-18**

8/26/2013 - 9/8/2013



Federal Aviation Administration
Engineering Procedures Office, AIR-110
P.O. Box 25082
Oklahoma City, OK 73125-0460

CHANGE OF ADDRESS NOTICE

Any change of address regarding the biweekly service must include the mailing label from a recent issue or your name and address printed exactly as they appear on the mailing label (including the computer number above the address).

Please allow one month for an address change.

MAIL YOUR ADDRESS CHANGE TO:

Superintendent of Documents
Government Printing Office
Mail List Branch SSOM
Washington, DC 20402

Telephone: (202) 512-1806
Facsimile: (202) 512-2250

LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S - Supersedes			
Biweekly 2013-01			
2012-25-09		Rolls-Royce plc	RB211-524G2-19; RB211-524G2-T-19; RB211-524G3-19; RB211-524G3-T-19; RB211-524H2-19; RB211-524H2-T-19; RB211-524H-36; RB211-524H-T-36; RB211-535E4-37; RB211-535E4-B-37; RB211-535E4-B-75; and RB211-535E4-C-37 turbofan engines
2012-26-01	S 2005-13-27	Saab AB, Saab Aerosystems	SAAB 2000
2012-26-02		Boeing	737-300, -400, and -500 series
2012-26-03		Airbus	A330-202, -203, -223, -243, -302, -323, -342, -343, and A340-313
2012-26-05		Airbus	A330-201, A330-202, A330-203, A330-223, A330-223F, A330-243, A330-243F, A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342, A330-343, A340-211, A340-212, A340-213, A340-311, A340-312, and A340-313
2012-26-08		Pratt & Whitney Canada Corp	PW118, PW118A, PW118B, PW119B, PW119C, PW120, PW120A, PW121, PW121A, PW123, PW123B, PW123C, PW123D, PW123E, PW123AF, PW124B, PW125B, PW126A, PW127, PW127E, PW127F, PW127G, and PW127M turboprop engines
2012-26-14		Rolls-Royce Deutschland Ltd & Co KG	BR700-715A1-30, BR700-715B1-30, and BR700-715C1-30 turbofan engines
2012-26-15		Honeywell International Inc	See AD
2012-26-51		Airbus	A318-111, -112, -121, -122; A319-111, -112, -113, -114, -115, -131, -132, -133; A320-111, -211, -212, -214, -231, -232, -233; A321-111, -112, -131, -211, -212, -213, -231, and -232
2012-27-01		Rolls-Royce Deutschland Ltd & Co KG	Tay 620-15 turbofan engines
Biweekly 2013-02			
2012-25-13		The Boeing Company	747-100, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400F, and 747SR series
2012-26-04	S 2008-05-10	The Boeing Company	757-200, -200PF, and -200CB series
2013-01-02	S 2009-22-08	The Boeing Company	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP; and Model 757-200, -200PF, and -300 series
2013-01-03		The Boeing Company	737-300, -400, and -500; and Model 757-200 series
2013-02-03		Rolls-Royce plc	RB211-Trent 970-84, 970B-84, 972-84, 972B-84, 977-84, 977B-84, and 980-84 turbofan engines
2013-02-51		The Boeing Company	787-8
Biweekly 2013-03			
2013-02-02		CFM International, S.A.	CFM56-3, CFM56-3B, and CFM56-3C turbofan engines
2013-02-04		Rolls-Royce plc	RB211-Trent 970-84, RB211-Trent 970B-84, RB211-Trent 972-84, RB211-Trent 972B-84, RB211-Trent 977-84, RB211-Trent 977B-84, and RB211-Trent 980-84 engines
2013-02-05		The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series
2013-02-06		Engine Alliance	GP7270 and GP7277 turbofan engines
2013-02-07		The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series
2013-02-08		Bombardier, Inc	CL-600-2B19 (Regional Jet Series 100 & 440)
2013-02-09		BAE SYSTEMS (OPERATIONS) LIMITED	BAe 146-100A, -200A, -300A; Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2013-02-10		Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, and -313
2013-02-11		Airbus	A310-203
2013-02-12		EADS CASA	CN-235, CN-235-100, CN-235-200, and CN-235-300

LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S - Supersedes			
Biweekly 2013-04			
2013-02-51		The Boeing Company	787-8
2013-03-05		Airbus	A300 B4-601, B4-603, B4-620, B4-622, A300 B4-605R, B4-622R, A300 F4-605R, F4-622R, A300 C4-605R Variant F, A310-203, -204, -221, -222, -304, -322, -324, and -325
2013-03-07		Hawker Beechcraft Corporation	400A
2013-03-08		Bombardier, Inc.	CL-600-1A11 (CL-600), CL-600-2A12 (CL-601), CL-600-2B16 (CL-601-3A, CL-601-3R Variants), and CL-600-2B16 (CL-604 Variants)
2013-03-11		Airbus	A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, C4-605R Variant F; A310-203, -204, -221, -222, -304, -322, -324, and -325
2013-03-12		Dassault Aviation	Mystere-Falcon 50
2013-03-13		Embraer S.A.	ERJ 170-100 LR, -100 STD, -100 SE., -100 SU, ERJ 170-200 LR, -200 SU, -200 STD, ERJ 190-100 STD, -100 LR, -100 ECJ, -100 IGW, ERJ 190-200 STD, -200 LR, and -200 IGW
2013-03-17		Rolls-Royce Deutschland Ltd & Co KG	RRD BR700-710A1-10, BR700-710A2-20, and BR700-710C4-11 engines
2013-03-19	S 2001-17-20	The Boeing Company	707-100 long body, -200, -100B long body, -100B short body series, 707-300, -300B, -300C, -400 series, 720 and 720B series
2013-03-20		The Boeing Company	757-200, -200PF, -200CB, and -300 series
2013-03-23		Gulfstream Aerospace LP	G150
2013-04-01	S 2011-13-01	Rolls-Royce plc	RB211-524D4-19, -524D4-B-19, -524D4-39, -524D4-B-39, -524D4X-19, -524D4X-B-19, -524H-36, -524H2-19, -524H-T-36, -524H2-T-19, -524G2-19, -524G3-19, -524G2-T-19, and -524G3-T-19 turbofan engines
2013-04-05		The Boeing Company	737-200, -200C, -300, -400, and -500 series
Biweekly 2013-05			
2012-25-03	Cor	The Boeing Company	757-200, -200PF, -200CB series, and 757-300
2013-03-06		Airbus	A330-223F, -243F, A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, -313, -541, and -642
2013-04-03		Cessna Aircraft Company	750
2013-04-07		Bombardier, Inc.	DHC-8-102, -103, -106, -201, -202, -301, -311, and -315
2013-04-10		Airbus	A310-203, -204, -222, -304, -322, and -324
2013-04-11		The Boeing Company	737-600, -700, -800, and -900ER series
2013-04-12		Airbus	A310-204, -222, -304, -322, and -324
2013-04-13		BAE SYSTEMS (OPERATIONS) LIMITED	BAe 146-100A, -200A, and -300A airplanes; and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2013-05-02		The Boeing Company	DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88
Biweekly 2013-06			
2013-03-06		Airbus	A330-223F, -243F, A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, -313, -541, and -642
2013-03-22		Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440)
2013-04-14		Airbus	A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, C4-605R Variant F, A310-203, -204, -221, -222, -304, -322, -324, and -325
2013-05-02		The Boeing Company	DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88
2013-05-03		The Boeing Company	777-200, -200LR, -300, and -300ER series
2013-05-05		The Boeing Company	777-200, -200LR, -300, and -300ER series
2013-05-06		Bombardier, Inc.	CL-600-2A12 (CL-601), CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants)
2013-05-07		The Boeing Company	767-200, -300, -300F, and -400ER series
2013-05-09		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -343, A330-223F, -243F, A340-211, -212, -213, -311, -312, and -313
2013-05-13		Rolls-Royce Deutschland Ltd & Co KG	BR700-710A1-10, BR700-710A2-20, and BR700-710C4-11 turbofan engines

LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S - Supersedes			
2013-05-18	S 2012-02-04	Rolls-Royce plc	RB211 Trent 553-61, RB211 Trent 553A2-61, RB211 Trent 556-61, RB211 Trent 556A2-61, RB211 Trent 556B-61, RB211 Trent 556B2-61, RB211 Trent 560-61, and RB211 Trent 560A2-61 turbofan engine
2013-05-19		Rolls-Royce Deutschland Ltd & Co KG	Tay 611-8 turbofan engines
2013-05-20		Rolls-Royce Deutschland Ltd & Co KG	Spey 511-8 turbojet engines
2013-06-01		Rolls-Royce Deutschland Ltd & Co KG	Tay 620-15 and Tay 650-15 turbofan engines
Biweekly 2013-07			
2013-05-10		The Boeing Company	777-200, -200LR, -300, -300ER, and 777F series
2013-05-12		Embraer S.A.	ERJ 170-100 LR, -100 STD, -100 SE., -100 SU, ERJ 170-200 LR, -200 SU, -200 STD, ERJ 190-100 STD, -100 LR, -100 IGW, ERJ 190-200 STD, -200 LR, -200 IGW, and ERJ 190-100 ECJ
2013-06-03		Airbus	A318-111, -112, -121, -122, A319-111, -112, -113, -114, -115, -131, -132, -133, A320-111, -211, -212, -214, -231, -232, -233, A321-111, -112, -131, -211, -212, -213, -231, and -232
2013-06-05		The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series
2013-06-06		General Electric Company	CF34-8C1, CF34-8C5, CF34-8C5A1, CF34-8C5A2, CF34-8C5A3, CF34-8C5B1, CF34-8E2, CF34-8E2A1, CF34-8E5, CF34-8E5A1, CF34-8E5A2, CF34-8E6, and CF34-8E6A1 turbofan engines
Biweekly 2013-08			
2013-04-04	S 2008-13-20	The Boeing Company	757-200, -200CB, -200PF, and -300 series
2013-05-04		Rolls-Royce plc	RB211-Trent 970-84, RB211-Trent 970B-84, RB211-Trent 972-84, RB211-Trent 972B-84, RB211-Trent 977-84, RB211-Trent 977B-84, and RB211-Trent 980-84 turbofan engines
2013-07-02		Airbus	A318-111, -112, -121, -122, A319-111, -112, -113, -114, -115, -131, -132, -133, A320-111, -211, -212, -214, -231, -232, and -233
2013-07-03		Airbus	A330-201, -202, -203, -223, -243, -223F, -243F, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, -313, A340-541 and A340-642
2013-07-04	S 2007-05-13	Airbus	A319-111, -112, -113, -114, -115, -131, -132, -133, A320-111, -211, -212, -214, -231, -232, -233, A321-111, -112, -131, -211, -212, -213, -231, and -232
2013-07-07		The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series
2013-07-08		The Boeing Company	757-200, 757-200PF, 757-200CB, 757-300 series
2013-07-09		The Boeing Company	737-700, -700C, -800, -900ER, 747-400F, 767-200 and -300 series
2013-07-10		International Aero Engines	V2525-D5 and V2528-D5 turbofan engines
2013-07-11	S 2009-24-08	The Boeing Company	777-200, -200LR, -300, and -300ER series
2013-07-13		Dassault Aviation	Falcon 7X
2013-08-02	S 2007-26-05	The Boeing Company	777-200, -200LR, -300, and -300ER series
2013-08-03		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, and -313
2013-08-08		The Boeing Company	737-600 series
2013-08-09		The Boeing Company	777-200, -200LR, -300, -300ER, and 777F series

LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S - Supersedes			
Biweekly 2013-09			
2013-08-10		Kelowna Flightcraft R & D Ltd.	340 and 440
2013-08-11		The Boeing Company	737-900 and -900ER series
2013-08-12		The Boeing Company	787-8
2013-08-13		The Boeing Company	767-300 series
2013-08-15		The Boeing Company	737-800 series
2013-08-16		The Boeing Company	737-700 and -700C series
2013-08-18		The Boeing Company	737-600, -700, -700C, -800, -900 and -900ER series
2013-08-20	S 2000-04-14	General Electric Company	CF6-80C2 A1/A2/A3/A5/A8/A5F/B1/B2/B4/B5F/B6/B1F/B2F/B4F/B6F/B7F/D1F turbofan engines
2013-08-23		The Boeing Company	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
Biweekly 2013-10			
2012-18-13 R1		The Boeing Company	737-100, -200, -200C, -300, -400, and -500 series
2013-05-08		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -, A340-211, -212, -213, -311, -312, and -313
2013-08-01		The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series
2013-09-01	S 2003-08-15	The Boeing Company	737-200, -200C, -300, -400, and -500 series
2013-09-02	S 2000-25-07 S 2002-05-07	The Boeing Company	737-100, -200, -200C, -300, -400, and -500 series
2013-09-07		Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440)
2013-09-08		The Boeing Company	737-300, -400, and -500 series
2013-10-02	S 2003-18-05	The Boeing Company	757-200 and -200PF series
2013-10-52	E	General Electric Company	GE90-110B1 and GE90-115B turbofan engines
Biweekly 2013-11			
2013-09-08	COR	The Boeing Company	737-300, -400, and -500 series
2013-09-10	S 2000-07-06	The Boeing Company	737-100, -200, -200C, -300, -400, and -500 series
2013-09-11		Cessna Aircraft Company	500, 501, 550, 551, S550, 560, 560XL, and 650
2013-10-03	S 2010-02-10	Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, -313, A340-541 and -642
2013-10-06		Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, -313, -541, and -642
2013-10-07		Airbus	A300 B4-601, B4-603, B4-620, B4-605R, and B4-622R
2013-11-03		Bombardier, Inc.	CL-215-1A10 and CL-215-6B11 (CL-215T Variant)
Biweekly 2013-12			
2013-11-04		The Boeing Company	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, 747SP, 767-200, -300, -300F, -400ER, 777-200, -200LR, -300, and -300ER series
2013-11-06		Dassault Aviation	Mystere-Falcon 900 and Falcon 900EX
2013-11-07		Embraer S.A.	ERJ 190-100 STD, -100 LR, -100 ECJ, -100 IGW, ERJ 190-200 STD, -200 LR, and -200 IGW
2013-11-12		Bombardier, Inc.	BD-100-1A10 (Challenger 300)
2013-11-13		Rolls-Royce plc	Viper Mk. 601-22 turbojet engines
2013-11-14		The Boeing Company	777-200 and -300 series
2013-12-02		Engine Alliance	GP7270 and GP7277 turbofan engines
2013-12-03		Rolls-Royce Deutschland Ltd & Co KG	BR700-725A1-12 turbofan engines

LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S - Supersedes			
Biweekly 2013-13			
2013-01-01	S 2011-23-08	Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440)
2013-05-11	S 2010-23-07	Airbus	A318-111, -112, -121, -122, A319-111, -112, -113, -114, -115, -131, -132, -133, A320-111, -211, -212, -214, -231, -232, -233, A321-111, -112, -131, -211, -212, -213, -231, and -232
2013-09-04		Bombardier, Inc	DHC-8-400, -401, and -402
2013-10-52		General Electric Company	GE90-110B1 and GE90-115B turbofan engines
2013-11-16		Hawker Beechcraft Corporation	BAe.125 Series 800A (including C-29A and U-125), 800B, Hawker 800 (including variant U-125A) and 800XP
2013-12-01		Rolls-Royce plc	RB211 Trent 768-60, 772-60, and 772B-60 turbofan engines
2013-13-05		The Boeing Company	747SP, 747-100B SUD, and 747-300
Biweekly 2013-14			
2010-17-11R1		Dowty Propellers	R408/6-123-F/17 model propellers
2013-09-03		Dassault Aviation	Falcon 2000, Falcon 2000EX, Mystere-Falcon 50, Mystere-Falcon 900 and Falcon 900EX
2013-11-17	S 2010-14-14	Embraer S.A.	ERJ 170-100 LR, -100 STD, -100 SE., -100 SU, ERJ 170-200 LR, -200 SU, -200 STD, ERJ 190-100 STD, -100 LR, -100 ECJ, -100 IGW, ERJ 190-200 STD, -200 LR, and -200 IGW
2013-13-03		Airbus	A319-112, -113, -132, A320-211, -212, -214, -231, -232, A321-111 and -131
2013-13-04		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
2013-13-09		Learjet Inc.	60
2013-13-11		The Boeing Company	747-400, -400D, and -400F series
2013-14-51		General Electric Company	GE90-110B1 and GE90-115B turbofan engines
Biweekly 2013-15			
2013-13-08	S 2009-18-02	The Boeing Company	767-200, -300, -300F, and -400ER series
2013-13-15	S 87-02-07	The Boeing Company	737-100, -200, -200C, and -300 series
2013-13-17	S 2011-13-08	Bombardier, Inc.	DHC-8-400, -401, and -402
2013-14-02		The Boeing Company	727, 727C, 727-100, 727-100C, 727-200, and 727-200F series
2013-14-03		The Boeing Company	727, 727C, 727-100, 727-100C, 727-200, and 727-200F series
2013-14-05		The Boeing Company	747-400 and 747-400F series
2013-14-07		Learjet	45
2013-14-11		Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440), CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705), and CL-600-2D24 (Regional Jet Series 900)
2013-15-04		Hartzell Propeller, Inc.	HC-(1,D)2(X,V,MV)20-7, HC-(1,D)2(X,V,MV)20-8, and HC-(1,D)3(X,V,MV)20-8 propellers
2013-15-07		The Boeing Company	787-8
Biweekly 2013-16			
2013-13-12	S 2000-06-13 R1	The Boeing Company	737-200, -200C, -300, -400, and -500 series
2013-13-16	S 2005-07-04	Airbus	330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, and -313
2013-14-06		CFM International S.A.	CFM56-5 and CFM56-5B series turbofan engines
2013-14-09	S 2012-14-04	Bombardier, Inc.	DHC-8-101, -102, -103, -106, -201, -202, -301, -311, and -315
2013-14-10	S 2010-11-02	Gulfstream Aerospace LP	100, Astra SPX and 1125 Westwind Astra
2013-15-05		Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440)
2013-15-20	S 2013-14-51	General Electric Company	GE90-76B, GE90-77B, GE90-85B, GE90-90B, GE90-94B, GE90-110B1, GE90-113B and GE90-115B turbofan engines
2013-16-02		Dassault Aviation	FALCON 7X

LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S - Supersedes			
2013-16-09		Airbus	A318-111, -112, -121, -122, A319-111, -112, -113, -114, -115, -131, -132, -133, A320-111, -211, -212, -214, -231, -232, -233, A321-111, -112, -131, -211, -212, -213, -231, and -232
Biweekly 2013-17			
2013-15-08		Pratt & Whitney Canada Corp.	W118A, PW118B, PW119B, PW119C, PW123, PW123B, PW123C, PW123D, PW123E, PW123AF, PW124B, PW125B, PW126A, PW127, PW127E, PW127F, PW127G, and PW127M turboprop engines
2013-15-09		Pratt & Whitney Division	PW4074, PW4074D, PW4077, PW4077D, PW4084D, PW4090, and PW4090-3 turbofan engines
2013-15-11		The Boeing Company	727, 727C, 727-100, 727-100C, 727-200, and 727-200F series
2013-15-12	S 2004-15-07	Airbus	A310-203, -204, -221, -222, -304, -322, -324, and -325
2013-15-14	S 2008-06-29	The Boeing Company	737-300, -400, and -500 series
2013-15-15		The Boeing Company	27, 727C, 727-100, 727-100C, 727-200, and 727-200F series
2013-15-16		The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series
2013-15-21	S 2004-13-06	Airbus	A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; and Model A320-111, -211, -212, -214, -231, -232, and -233
2013-16-08		Bombardier, Inc.	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900)
2013-16-10		Hamilton Standard Division and Hamilton Sundstrand Corporation	See AD
2013-16-11		Airbus	A330-301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, and -313
2013-16-12		Bombardier, Inc.	DHC-8-102, -103, and DHC-8-106
2013-16-15		General Electric Company	GENx-2B67B turbofan engines
2013-16-17		The Boeing Company	727, 727C, 727-100, 727-100C, 727-200, and 727-200F series
2013-16-18		Airbus	A320-214, -232, -233, A321-211, -213, and -231
2013-16-22		Embraer S.A.	ERJ 170-100 LR, -100 STD, -100 SE., -100 SU, ERJ 170-200 LR, -200 SU, -200 STD, ERJ 190-100 STD, -100 LR, -100 ECJ, -100 IGW, ERJ 190-200 STD, -200 LR, and -200 IGW
Biweekly 2013-18			
2013-05-08		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes; A340-211, -212, -213, -311, -312, and -313 airplanes
2013-15-10	S 2012-10-12	Rolls-Royce plc	RB211-Trent 553-61, 553A2-61, 556-61, 556A2-61, 556B-61, 556B2-61, 560-61, 560A2-61, 768-60, 772-60, 772B-60, 875-17, 877-17, 884-17, 884B-17, 892-17, 892B-17, 895-17, 970-84, 970B-84, 972-84, 972B-84, 977-84, 977B-84, and 980-84 turbofan engines
2013-15-13		The Boeing Company	757-200, -200PF, -200CB, and -300 series airplanes
2013-15-17		The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series airplanes
2013-15-18	S 2005-15-01	Lockheed Martin	L-1011-385-1, L-1011-385-1-14, L-1011-385-1-15, and L-1011-385-3 airplanes
2013-16-23		Rolls-Royce plc	RB211-524G2-19; -524G3-19; -524H2-19; and -524H-36 turbofan engines; RB211-524B-02; -524B2-19; -524B3-02; -524B4-02; -524C2-19; -524D4-19; -524D4-B-19; and -524D4-39 turbofan engines; RB211-535C-37; -535E4-37; -535E4-B-37, and -535E4-B-75 turbofan engines
2013-16-24	S 90-23-14	The Boeing Company	747-100, 747-100B, 747-200B, 747-200C, 747-200F, 747-300, 747SR, and 747SP series airplanes
2013-16-25		Bombardier, Inc.	DHC-8-400, -401, and -402 airplanes
2013-16-26		Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes; A340-211, -212, -213, -311, -312, and -313 airplanes

LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S - Supersedes			
2013-17-03		Airbus	A330-201, -202, -203, -223, -243, -223F, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes; A340-211, -212, -213, -311, -312, and -313 airplanes; and Model A340-541 and Model A340-642 airplanes
2013-17-05		Bombardier, Inc.	CL-600-2C10, CL-600-2D15, CL-600-2E25 airplanes
2013-17-09		Airbus	A318-111, -112, -121, and -122 airplanes; Airbus Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; A320-111, -211, -212, -214, -231, -232, and -233 airplanes; A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes



CORRECTION: Federal Register Volume 78, Number 168 (Thursday, August 29, 2013); Page 53237.

2013-05-08 Airbus: Amendment 39-17380. Docket No. FAA-2012-0808; Directorate Identifier 2010-NM-170-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective June 13, 2013.

(b) Affected ADs

None.

(c) Applicability

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

(1) Model A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes, all manufacturer serial numbers (MSN).

(2) Model A340-211, -212, -213, -311, -312, and -313 airplanes, all MSN.

(d) Subject

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

(e) Reason

This AD was prompted by reports of an elevator blocked in the down position due to two independent failures; first, the inability of a servo control to switch to active mode because it was not detected by a flight control computer; and second, an internal hydraulic leak due to the deterioration of an O-ring seal on a solenoid. We are issuing this detect and correct O-rings with incorrect part numbers whose deterioration could lead to improper sealing of solenoid valves; and to correct flight control primary computer (FCPC) and flight control secondary computer (FCSC) software to allow better control of elevator positioning; both conditions, if not corrected, could lead to the loss of elevator control on takeoff, and potentially reduce the controllability of the airplane.

(f) Compliance

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

(g) Replacement of O-ring Seals for Elevator Servo Controls Installed in Damping Position on Model A330-200 Series Airplanes Only

For all Airbus Model A330-200 series airplanes, except those on which Airbus modifications 53969 or 54833 have been embodied in production: At the later of the times specified in paragraphs (g)(1) and (g)(2) of this AD, replace the O-ring seals installed on the two solenoid valves of each servo control using new O-ring seals, in accordance with Airbus All Operators Telex (AOT) A330-27A3129, Revision 01, dated July 16, 2004.

- (1) Before the accumulation of 3,000 flight cycles by the servo control since first installation on an airplane, or 3,000 flight cycles since the installation of the solenoid valve on the servo control.
- (2) Within 700 flight hours after the effective date of this AD.

(h) Replacement of O-ring Seals on Spare Elevator Servo Controls Whose O-ring Seals Were Not Replaced as Required by Paragraph (g) of This AD

For all Airbus Model A330-200 series airplanes, except those on which Airbus modifications 53969 or 54833 have been embodied in production: As of the effective date of this AD, before the installation of an elevator servo control on an Airbus Model A330-200 airplane, replace the O-ring seals installed on the two spare servo control solenoid valves using new O-ring seals, in accordance with Airbus AOT A330-27A3129, Revision 01, dated July 16, 2004.

(i) Replacement of O-ring Seals with Part Number (P/N) MS28775-XXX or a Part Number that Cannot Be Identified

For Model A330-200 series airplanes which have been modified as specified in Airbus AOT A330-27A3129, dated June 24, 2004, but which have not been modified as specified in Airbus AOT A330-27A3129, Revision 01, dated July 16, 2004; except those airplanes on which Airbus modifications 53969 or 54833 have been embodied in production: Within 15 days after the effective date of this AD, check the part number (P/N) of the seals installed on the solenoid valve of the servo control of the elevator in the damping position. If the seals installed have P/N MS28775-XXX or a part number that cannot be identified, before further flight, replace the seals with new seals using a part number listed in paragraph (i)(1), (i)(2), or (i)(3) of this AD, in accordance with Airbus AOT A330-27A3129, Revision 01, dated July 16, 2004.

- (1) Illustrated Parts Catalog (IPC) 27-34-51-1 item 130: NAS1611-011 or NAS1611-011A.
- (2) IPC 27-34-51-1 item 140: NAS1611-012 or NAS1611-012A.
- (3) IPC 27-34-51-1 item 150: NAS1611-013 or NAS1611-013A.

(j) Replacement of O-ring Seals on Model A330-200, A330-300, A340-200, and A340-300 Series Airplanes

For Model A330-200, A330-300, A340-200, and A340-300 series airplanes equipped with elevator servo controls P/N SC4800-2/-4/-7/-8 or SC4800-7/-8 modified into P/N SC4800-7A/-9, as specified in Airbus Service Bulletin A340-27-4083 or Airbus Service Bulletin A330-27-3076: Within 1,400 flight hours after the effective date of this AD, replace the O-ring seals installed on the two solenoid valves of each elevator servo control in damping position (except for Model A330-200 series airplanes which have to comply with paragraph (g) of this AD), and in active position, using a new O-ring seal P/N NAS1611-XXX or P/N NAS1611-XXXA, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-27A3131, Revision 01, dated March 3, 2005 (for Model A330 airplanes); or Airbus Mandatory Service Bulletin A340-27A4130, Revision 01, dated March 3, 2005 (for Model A340 airplanes).

(k) Replacement of O-ring Seals on Spare Elevator Servo Controls on Model A330-200, A330-300, A340-200, and A340-300 Series Airplanes

For the spare elevator servo controls P/N SC4800-2/-4/-7/-8 or SC4800-7/-8 modified into P/N SC4800-7A/-9, as specified in Airbus Service Bulletin A340-27-4083 or Airbus Service Bulletin A330-27-3076: Before the installation of a spare elevator servo control on an airplane, replace the O-ring seals installed on the two spare servo control solenoid valves using a new O-ring seal P/N NAS1611-XXX or P/N NAS1611-XXXA, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-27A3131, Revision 01, dated March 3, 2005 (for Model A330 airplanes); or Airbus Mandatory Service Bulletin A340-27A4130, Revision 01, dated March 3, 2005 (for Model A340 airplanes).

(l) Modification of FCPCs

For all Airbus Model A330-200 and A330-300 series airplanes, except those on which both Airbus modifications 53468 and 55697 have been embodied in production; and for all Airbus Model A340-200 and A340-300 series airplanes, except those on which both modifications 55879 and 55697 have been embodied in production: Within 24 months after the effective date of this AD, modify the three FCPCs, in accordance with the Accomplishment Instructions of the applicable service bulletin identified in paragraph (l)(1) or (l)(2) of this AD.

(1) Airbus Service Bulletin A330-27-3144, Revision 01, dated July 16, 2009; or Airbus Mandatory Service Bulletin A330-27-3148, Revision 01, dated October 9, 2008 (for Model A330 airplanes).

(2) Airbus Mandatory Service Bulletin A340-27-4144, dated October 19, 2009; or Airbus Mandatory Service Bulletin A340-27-4148, dated June 13, 2008 (for Model A340 airplanes).

(m) Modification of FCSCs

For all Airbus Model A330-200 and A330-300 series airplanes, except those on which both Airbus modifications 53468 and 55697 have been embodied in production; and for all Airbus Model A340-200 and A340-300 series airplanes, except those on which both modifications 55879 and 55697 have been embodied in production: Within 24 months after the effective date of this AD, modify both FCSCs, in accordance with the Accomplishment Instructions of the applicable service bulletin identified in paragraph (m)(1) or (m)(2) of this AD.

(1) Airbus Mandatory Service Bulletin A330-27-3146, Revision 01, dated September 3, 2008; or Airbus Service Bulletin A330-27-3145, dated December 16, 2008 (for Model A330 airplanes).

(2) Airbus Mandatory Service Bulletin A340-27-4146, June 1, 2007; or Airbus Service Bulletin A340-27-4145, dated December 16, 2008 (for Model A340 airplanes).

(n) Revise the Airplane Flight Manual

Before further flight, after doing the applicable actions required by both paragraphs (l) and (m) of this AD, remove the procedure specified in Figure 1 to paragraph (n) of this AD from the airplane flight manual, if inserted, in accordance with the instructions contained in Airbus Temporary Revision TR4, Issue 1.0, "TR 4.02.00/25 Issue 2—Undetected Elevator Control Loss in Case of Dual Failure," dated November 26, 2009, to the Airbus A330/A340 Airplane Flight Manual; and Airbus Temporary Revision TR22, Issue 1.0, "TR 4.02.00/40 Issue 2—Undetected Elevator Control Loss in Case of Dual Failure," dated November 26, 2009, to the Airbus A330/A340 Airplane Flight Manual.

Figure 1 to Paragraph (n) – Procedure to be Removed

Undetected Elevator Control Loss in Case of Dual Failure

On ground, before takeoff until takeoff power thrust setting, apply the following procedure.

- In the case of a F/CTL PRIM 1 FAULT, or F/CTL PRIM 1 PITCH FAULT:
Turn off PRIM 1, then back on to perform a FCPC PRIM 1 reset.
 - If successful:
Perform the normal pre-flight Flight Control check.
 - If unsuccessful:
Return to the gate and require appropriate maintenance actions.
- In the case of a F/CTL ELEV SERVO FAULT: Return to the gate and require appropriate maintenance actions.

(o) Optional Actions Acceptable for Compliance With the Modification Required by Paragraph (l) of This AD

Accomplishing the actions specified in paragraphs (o)(1) through (o)(4) of this AD, as applicable, is acceptable for compliance with the modification required by paragraph (l) of this AD.

(1) For airplanes identified in Airbus Mandatory Service Bulletin A330-27-3176, Revision 02, dated April 24, 2012: Modification or replacement of the three FCPCs with software standard P11A/M20A on FCPC 2K2 hardware, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-27-3176, Revision 02, dated April 24, 2012 (for Model A330 airplanes).

(2) For airplanes identified Airbus Mandatory Service Bulletin A330-27-3177, dated December 21, 2011: Modification or replacement of the three FCPCs with software standard P12A/M21A on FCPC 2K1 hardware, and with software standard M21A on FCPC 2K0 hardware, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-27-3177, dated December 21, 2011 (for Model A330 airplanes).

(3) For airplanes identified in Airbus Mandatory Service Bulletin A340-27-4174, dated November 21, 2011: Modification or replacement of the three FCPCs with software standard L22A on FCPC 2K1 hardware, and with software standard L22A on FCPC 2K0 hardware, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A340-27-4174, dated November 21, 2011 (for Model A340 airplanes).

(4) For airplanes identified in Airbus Mandatory Service Bulletin A340-27-4162, Revision 01, dated September 17, 2012: Modification or replacement of the three FCPCs with software standard

L21A on FCPC 2K2 hardware in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A340-27-4162, Revision 01, dated September 17, 2012 (for Model A340 airplanes).

(p) Credit for Previous Actions

This paragraph provides credit for certain actions described in the following paragraphs. The documents specified in paragraphs (p)(1) through (p)(5) of this AD are not incorporated by reference in this AD.

(1) This paragraph provides credit for replacements of the O-ring seals, as required by paragraphs (j) and (k) of this AD, if those actions were performed before the effective date of this AD using Airbus Service Bulletin A330-27A3131, dated September 22, 2004 (for Model A330 airplanes); or Airbus Service Bulletin 340-27A4130, dated September 22, 2004 (for Model A340 airplanes).

(2) This paragraph provides credit for modifications of the FCPC, as required by paragraph (l) of this AD, if those actions were performed before the effective date of this AD using Airbus Service Bulletin A330-27-3144, dated April 2, 2009 (for Model A330 airplanes); or Airbus Mandatory Service Bulletin A330-27-3148, dated July 17, 2008 (for Model A330 airplanes).

(3) This paragraph provides credit for modifications of the FCSCs, as required by paragraph (m) of this AD, if those actions were performed before the effective date of this AD using Airbus Mandatory Service Bulletin A330-27-3146, dated June 1, 2007 (for Model A330 airplanes).

(4) This paragraph provides credit for modification or replacement of the FCPCs specified in paragraph (o)(1) of this AD, if those actions were performed before the effective date of this AD using Airbus Mandatory Service Bulletin A330-27-3176, dated July 26, 2011; or Airbus Mandatory Service Bulletin A330-27-3176, Revision 01, dated March 27, 2012 (for Model A330 airplanes).

(5) This paragraph provides credit for modification or replacement of the FCPCs specified in paragraph (o)(4) of this AD, if those actions were performed before the effective date of this AD using Airbus Mandatory Service Bulletin A340-27-4162, dated January 10, 2012 (for Model A340 airplanes).

(q) Terminating Action

Installation of modified servo-controls at all positions on Model A330-200 series airplanes in accordance with the Accomplishment Instructions of Airbus Service Bulletin A330-27-3134, Revision 01, dated May 12, 2006; and Airbus Mandatory Service Bulletin A330-27-3136, Revision 01, dated July 19, 2006; terminates the actions required by paragraphs (g), (h), and (i) and of this AD.

(r) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1138; fax (425) 227-1149. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are

considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(s) Related Information

(1) Refer to MCAI European Aviation Safety Agency Airworthiness Directive 2010-0081, dated April 27, 2010, and the service information specified in paragraphs (s)(1)(i) through (s)(1)(xix) of this AD, for related information.

- (i) Airbus All Operators Telex (AOT) A330-27A3129, Revision 01, dated July 16, 2004.
- (ii) Airbus Mandatory Service Bulletin A330-27-3136, Revision 01, dated July 19, 2006.
- (iii) Airbus Mandatory Service Bulletin A330-27-3146, Revision 01, dated September 3, 2008.
- (iv) Airbus Mandatory Service Bulletin A330-27-3148, Revision 01, dated October 9, 2008.
- (v) Airbus Mandatory Service Bulletin A330-27-3176, Revision 02, dated April 24, 2012.
- (vi) Airbus Mandatory Service Bulletin A330-27-3177, dated December 21, 2011.
- (vii) Airbus Mandatory Service Bulletin A330-27A3131, Revision 01, dated March 3, 2005.
- (viii) Airbus Mandatory Service Bulletin A340-27-4144, dated October 19, 2009.
- (ix) Airbus Mandatory Service Bulletin A340-27-4146, dated June 1, 2007.
- (x) Airbus Mandatory Service Bulletin A340-27-4148, dated June 13, 2008.
- (xi) Airbus Mandatory Service Bulletin A340-27-4162, Revision 01, dated September 17, 2012.
- (xii) Airbus Mandatory Service Bulletin A340-27-4174, dated November 21, 2011.
- (xiii) Airbus Mandatory Service Bulletin A340-27A4130, Revision 01, dated March 3, 2005.
- (xiv) Airbus Service Bulletin A330-27-3134, Revision 01, dated May 12, 2006.
- (xv) Airbus Service Bulletin A330-27-3144, Revision 01, dated July 16, 2009.
- (xvi) Airbus Service Bulletin A330-27-3145, dated December 16, 2008.
- (xvii) Airbus Service Bulletin A340-27-4145, dated December 16, 2008.
- (xviii) Airbus Temporary Revision TR4, Issue 1.0, "TR 4.02.00/25 Issue 2–Undetected Elevator Control Loss in Case of Dual Failure," dated November 26, 2009, to the Airbus A330/A340 Airplane Flight Manual.
- (xix) Airbus Temporary Revision TR22, Issue 1.0, "TR 4.02.00/40 Issue 2–Undetected Elevator Control Loss in Case of Dual Failure," dated November 26, 2009, to the Airbus A330/A340 Airplane Flight Manual.

(2) For service information identified in this AD, contact Airbus SAS–Airworthiness Office–EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; email airworthiness.A330-A340@airbus.com; Internet <http://www.airbus.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

(t) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

- (i) Airbus All Operators Telex (AOT) A330-27A3129, Revision 01, dated July 16, 2004.
- (ii) Airbus Mandatory Service Bulletin A330-27-3136, Revision 01, dated July 19, 2006.
- (iii) Airbus Mandatory Service Bulletin A330-27-3146, Revision 01, dated September 3, 2008.
- (iv) Airbus Mandatory Service Bulletin A330-27-3148, Revision 01, dated October 9, 2008.
- (v) Airbus Mandatory Service Bulletin A330-27-3176, Revision 02, dated April 24, 2012.
- (vi) Airbus Mandatory Service Bulletin A330-27-3177, dated December 21, 2011.
- (vii) Airbus Mandatory Service Bulletin A330-27A3131, Revision 01, dated March 3, 2005.
- (viii) Airbus Mandatory Service Bulletin A340-27-4144, dated October 19, 2009.

- (ix) Airbus Mandatory Service Bulletin A340-27-4146, dated June 1, 2007.
 - (x) Airbus Mandatory Service Bulletin A340-27-4148, dated June 13, 2008.
 - (xi) Airbus Mandatory Service Bulletin A340-27-4162, Revision 01, dated September 17, 2012.
 - (xii) Airbus Mandatory Service Bulletin A340-27-4174, dated November 21, 2011.
 - (xiii) Airbus Mandatory Service Bulletin A340-27A4130, Revision 01, dated March 3, 2005.
 - (xiv) Airbus Service Bulletin A330-27-3134, Revision 01, dated May 12, 2006.
 - (xv) Airbus Service Bulletin A330-27-3144, Revision 01, dated July 16, 2009.
 - (xvi) Airbus Service Bulletin A330-27-3145, dated December 16, 2008.
 - (xvii) Airbus Service Bulletin A340-27-4145, dated December 16, 2008.
 - (xviii) Airbus Temporary Revision TR4, Issue 1.0, "TR 4.02.00/25 Issue 2–Undetected Elevator Control Loss in Case of Dual Failure," dated November 26, 2009, to the Airbus A330/A340 Airplane Flight Manual.
 - (xix) Airbus Temporary Revision TR22, Issue 1.0, "TR 4.02.00/40 Issue 2–Undetected Elevator Control Loss in Case of Dual Failure," dated November 26, 2009, to the Airbus A330/A340 Airplane Flight Manual.
- (3) For service information identified in this AD, contact Airbus SAS–Airworthiness Office–EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; email airworthiness.A330-A340@airbus.com; Internet <http://www.airbus.com>.
- (4) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.
- (5) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on February 28, 2013.
 Ali Bahrami,
 Manager, Transport Airplane Directorate,
 Aircraft Certification Service.



2013-15-10 Rolls-Royce plc: Amendment 39-17526; Docket No. FAA-2007-28059; Directorate Identifier 2007-NE-13-AD.

(a) Effective Date

This AD is effective October 8, 2013.

(b) Affected ADs

This AD supersedes AD 2012-10-12, Amendment 39-17061 (77 FR 31176, May 25, 2012).

(c) Applicability

This AD applies to Rolls-Royce plc (RR) RB211-Trent 553-61, 553A2-61, 556-61, 556A2-61, 556B-61, 556B2-61, 560-61, 560A2-61, 768-60, 772-60, 772B-60, 875-17, 877-17, 884-17, 884B-17, 892-17, 892B-17, 895-17, 970-84, 970B-84, 972-84, 972B-84, 977-84, 977B-84, and 980-84 turbofan engines.

(d) Unsafe Condition

This AD was prompted by detection of a crack in a Trent 500 intermediate-pressure (IP) compressor rotor shaft rear balance land with follow-on RR engineering evaluation concluding that cracking may also exist in Trent 900 engines. We are issuing this AD to detect cracking on the IP compressor rotor shaft rear balance land, which could lead to uncontained engine failure and damage to the airplane.

(e) Compliance

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

(f) RB211-Trent 700 Series Engines–Rear Balance Land Inspections

(1) Within 625 cycles-in-service (CIS) after June 29, 2012, or before the next flight after the effective date of this AD, whichever occurs later, borescope inspect the IP compressor rotor shaft rear balance land. Use RB211 Trent 700 Series Propulsion System Non-Modification Alert Service Bulletin (NMASB) No. RB.211-72-AG270, Revision 4, dated March 21, 2011, sections 3.A.(2)(a) through 3.A.(2)(c) and 3.A.(3)(a) through 3.A.(3)(c) for in-shop procedures, or 3.B.(2)(a) through 3.B.(2)(c) and 3.B.(4)(a) through 3.B.(4)(c) for on-wing procedures, to do the inspection.

(2) Thereafter, repeat the inspection within every 625 cycles-since-last inspection (CSLI). You may count CSLI from the last borescope inspection or the last eddy current inspection (ECI), whichever occurred last.

(3) At each shop visit after the effective date of this AD, perform an ECI and visually inspect the IP compressor rotor shaft rear balance land, and visually inspect the balance weights. Use RB211 Trent 700 and Trent 800 Series Propulsion Systems NMASB No. RB.211-72-AG085, Revision 2, dated July 7, 2011, sections 3.A. through 3.C., to do the inspections.

(g) RB211-Trent 800 Series Engines–Rear Balance Land Inspections

(1) Within 475 CIS after June 29, 2012, or before the next flight after the effective date of this AD, whichever occurs later, borescope inspect the IP compressor rotor shaft rear balance land. Use RB211 Trent 800 Series Propulsion System NMASB No. RB.211-72-AG264, Revision 5, dated March 21, 2011, sections 3.A.(2)(b) through 3.A.(2)(c) and 3.A.(3)(a) through 3.A.(3)(c) for in-shop procedures, or 3.B.(2)(a) through 3.B.(2)(c) and 3.B.(4)(a) through 3.B.(4)(c) for on-wing procedures, to do the inspection.

(2) Thereafter, repeat the inspection within every 475 CSLI. You may count CSLI from the last borescope inspection or the last ECI, whichever occurred last.

(3) At each shop visit, perform an ECI and visually inspect the IP compressor rotor shaft rear balance land, and visually inspect the balance weights. Use RB211 Trent 700 and Trent 800 Series Propulsion Systems NMASB No. RB.211-72-AG085, Revision 2, dated July 7, 2011, sections 3.A. through 3.C. and 3.D.(3) to do the inspections.

(h) RB211-Trent 500 Series Engines–Rear Balance Land Inspections

(1) Within 340 CIS after the effective date of this AD, borescope inspect the IP compressor rotor shaft rear balance land. Use RB211 Trent 500 Series Propulsion Systems NMASB No. RB.211-72-AH058, dated December 13, 2012, sections 3.A.(2)(a) through 3.A.(2)(c), 3.A.(3)(a) through 3.A.(3)(d), and 3.A.(5)(a) through 3.A.(5)(c) for on-wing procedures, to do the inspection.

(2) Thereafter, repeat the inspection within every 340 CSLI. You may count CSLI from the last borescope inspection or the last ECI, whichever occurred last.

(3) At each shop visit, perform an ECI and visually inspect the IP compressor rotor shaft rear balance land, and visually inspect the balance weights. Use RB211 Trent 500 and Trent 900 Series Propulsion Systems Non-Modification Service Bulletin (NMSB) No. RB.211-72-G448, Revision 3, dated July 7, 2011, sections 3.D.(4) through 3.D.(5), 3.D.(6)(f) through 3.D.(7)(w), 3.D.(8)(f) through 3.D.(8)(w), 3.D.(11), 3.D.(12), and 3.D.(e) to do the inspections.

(i) RB211-Trent 900 Series Engines–Rear Balance Land Inspections

(1) Within 280 flight cycles after the effective date of this AD, borescope inspect the IP compressor rotor shaft rear balance land. Use RB211 Trent 900 Series Propulsion Systems NMASB No. RB.211-72-AH059, dated December 11, 2012, sections 3.A.(2)(a) through 3.A.(2)(c), 3.A.(3)(a) through 3.A.(3)(d), 3.A.(5)(a) through 3.A.(5)(c), and 3.D.(e) to do the inspection.

(2) Thereafter, repeat the inspection within every 280 CSLI. You may count from the last borescope inspection or the last ECI, whichever occurred last.

(3) At each shop visit after the effective date of this AD, perform an ECI and visually inspect the IP compressor rotor shaft rear balance land, and visually inspect the balance weights. Use RB211 Trent 500 and Trent 900 Series Propulsion Systems NMSB No. RB.211-72-G448, Revision 3, dated July 7, 2011, sections 3.D.(4) through 3.D.(5), 3.D.(6)(f) through 3.D.(7)(w), 3.D.(8)(f) through 3.D.(8)(w), 3.D.(11), and 3.D.(12), to do the inspection.

(j) Mandatory Termination Action for RB211-Trent 700 and RB211-Trent 800 Engines

(1) For RB211-Trent 700 engines. At the next shop visit in which any level of inspection or strip is scheduled to be carried out on the IP compressor, remove the existing IP compressor balance weights.

(2) For RB211-Trent 800 engines. At the next shop visit in which any level of inspection or strip is scheduled to be carried out on the IP compressor, remove the existing IP compressor balance weights.

(3) Once you have removed the balance weights, do not re-install them on any IP compressor shaft rear balance land.

(k) Credit for Previous Actions

(1) For RB211-Trent 700 series engines:

(i) If you borescope inspected your RB211-Trent 700 series engine using RB211 Trent 700 Series Propulsion System NMASB No. RB.211-72-AG270, Revision 1, dated December 14, 2009, or Revision 2, dated December 21, 2010, or Revision 3, dated February 25, 2011, before the effective date of this AD, you have satisfied the requirements of paragraph (f)(1) of this AD.

(ii) If you performed the ECI and visual inspection of your RB211-Trent 700 series engine using RB211 Trent 700 and Trent 800 Series Propulsion Systems NMASB No. RB.211-72-AG085, Revision 1, dated September 27, 2010, before the effective date of this AD, you have satisfied the ECI and visual inspections required by paragraph (f)(3) of this AD. You are still required to perform the repetitive inspections required by paragraphs (f)(2) and (f)(3) of this AD.

(2) For RB211-Trent 800 series engines:

(i) If you borescope inspected your RB211-Trent 800 series engine using RB211 Trent 800 Series Propulsion System NMASB No. RB.211-72-AG264, Revision 3, dated December 21, 2010, or Revision 4, dated February 25, 2011, before the effective date of this AD, you have satisfied the requirements of paragraph (g)(1) of this AD.

(ii) If you performed the ECI and in-shop visual inspection of your RB211-Trent 800 series engine using RB211 Trent 700 and Trent 800 Series Propulsion Systems NMASB No. RB.211-72-AG085, Revision 1, dated September 27, 2010, before the effective date of this AD, you have satisfied the ECI and visual inspections required by paragraph (g)(3) of this AD. You are still required to perform the repetitive inspections required by paragraphs (g)(2) and (g)(3) of this AD.

(3) For RB211-Trent 500 and 900 series engines:

(i) If you borescope inspected your RB211-Trent 500 series engine using RB211 Trent 500, 700 and 800 Series Propulsion Systems NMASB No. RB.211-72-AF260, Revision 4, dated July 28, 2009, or using RB211 Trent 500 and Trent 900 Series Propulsion Systems NMSB No. RB.211-72-G448, Revision 2, dated December 23, 2010 before the effective date of this AD, you have satisfied the ECIs required by paragraph (h)(3) of this AD.

(ii) If you performed the ECI and in-shop visual inspection of your RB211-Trent 500 series engine using RB211 Trent 500 and Trent 900 Series Propulsion Systems NMSB No. RB.211-72-G448, Revision 2, dated December 23, 2010, before the effective date of this AD, you have satisfied the ECI and visual inspections required by paragraph (h)(3) of this AD. You are still required to perform the repetitive inspections required by paragraphs (h)(2) and (h)(3) of this AD.

(4) For RB211-Trent 900 series engines:

(i) If you borescope inspected your RB211-Trent 900 series engine using RB211 Trent 500 and Trent 900 Series Propulsion Systems NMSB No. RB.211-72-G448, Revision 2, dated December 23, 2010, before the effective date of this AD, you have satisfied the requirements of paragraph (i)(1) of this AD.

(ii) If you performed the ECI and in-shop visual inspection of your RB211-Trent 900 series engine using RB211 Trent 500 and Trent 900 Series Propulsion Systems NMSB No. RB.211-72-G448, Revision 2, dated December 23, 2010, before the effective date of this AD, you have satisfied the ECI and visual inspections required by paragraph (i)(3) of this AD. You are still required to perform the repetitive inspections required by paragraphs (i)(2) and (i)(3) of this AD.

(l) Definitions

For the purpose of this AD, a shop visit is defined as introduction of an engine into the shop and disassembly sufficient to expose the IP compressor module rear face.

(m) Alternative Methods of Compliance (AMOCs)

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

(n) Related Information

(1) For more information about this AD, contact Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7779; fax: 781-238-7199; email: frederick.zink@faa.gov.

(2) Refer to European Aviation Safety Agency, AD 2013-0002, dated January 4, 2013, for more information. You may examine this AD on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2007-28059-0022>.

(o) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(3) The following service information was approved for IBR on October 8, 2013.

(i) Rolls-Royce plc Non-Modification Alert Service Bulletin No. RB211 Trent 900 Series Propulsion Systems NMASB No. RB.211-72-AH059, dated December 11, 2012.

(ii) Rolls-Royce plc Non-Modification Alert Service Bulletin No. RB211 Trent 500 Series Propulsion Systems RB.211-72-AH058, dated December 13, 2012.

(4) The following service information was approved for IBR on June 29, 2012, (77 FR 31176, May 25, 2012).

(i) Rolls-Royce plc RB211 Trent 700 Series Propulsion System Non-Modification Alert Service Bulletin No. RB.211-72-AG270, Revision 4, dated March 21, 2011.

(ii) Rolls-Royce plc RB211 Trent 700 and 800 Series Propulsion Systems Non-Modification Alert Service Bulletin No. RB.211-72-AG085, Revision 2, dated July 7, 2011.

(iii) Rolls-Royce plc RB211 Trent 800 Series Propulsion System Non-Modification Alert Service Bulletin No. RB.211-72-AG264, Revision 5, dated March 21, 2011.

(iv) Rolls-Royce plc RB211 Trent 500 Series Propulsion System Non-Modification Alert Service Bulletin No. RB.211-72-AF260, Revision 5, dated July 7, 2011.

(v) Rolls-Royce plc RB211 Trent 500 and 900 Series Propulsion Systems Non-Modification Service Bulletin No. RB.211-72-G448, Revision 3, dated July 7, 2011.

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

(6) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803. For information on the availability of this material at the FAA, call 781-238-7125.

(7) You may also view this service information that is IBR 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 July 22, 2013.

Colleen M. D'Alessandro,
Assistant Manager, Engine & Propeller Directorate,
Aircraft Certification Service.



2013-15-13 The Boeing Company: Amendment 39-17529; Docket No. FAA-2008-0615; Directorate Identifier 2007-NM-352-AD.

(a) Effective Date

This AD is effective October 1, 2013.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all The Boeing Company Model 757-200, -200PF, -200CB, and -300 series airplanes, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 2800, Aircraft Fuel System.

(e) Unsafe Condition

This AD was prompted by reports of two in-service occurrences on Model 737-400 airplanes of total loss of boost pump pressure of the fuel feed system, followed by loss of fuel system suction feed capability on one engine, and in-flight shutdown of the engine. We are issuing this AD to detect and correct loss of the engine fuel suction feed capability of the fuel system, which in the event of total loss of the fuel boost pumps could result in dual engine flameout, inability to restart the engines, and consequent forced landing of the airplane.

(f) Compliance

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

(g) Operational Test and Corrective Actions

Within 7,500 flight hours or 36 months after the effective date of this AD, whichever occurs first: Perform an operational test of the engine fuel suction feed of the fuel system, and do all applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 757-28A0131, dated May 4, 2012. Do all applicable corrective actions before further flight. Repeat the operational test thereafter at intervals not to exceed 7,500 flight hours or 36 months, whichever occurs first. Thereafter, except as provided in paragraph (h) of this AD, no alternative procedures or repeat test intervals will be allowed.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

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

(i) Related Information

For more information about this AD, contact Sue Lucier, Aerospace Engineer, Propulsion Branch, ANM-140S, Seattle Aircraft Certification Office, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6438; fax: 425-917-6590; email: suzanne.lucier@faa.gov.

(j) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Alert Service Bulletin 757-28A0131, dated May 4, 2012.

(ii) Reserved.

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

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

(5) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on July 21, 2013.
Stephen P. Boyd,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.



2013-15-17 The Boeing Company: Amendment 39-17533; Docket No. FAA-2008-0617; Directorate Identifier 2007-NM-354-AD.

(a) Effective Date

This AD is effective October 1, 2013.

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, certificated in any category, with a date of issuance of the original airworthiness certificate or the date of issuance of the original export certificate of airworthiness before March 22, 2011.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 2800, Aircraft Fuel System.

(e) Unsafe Condition

This AD was prompted by a report of an in-service occurrence of total loss of boost pump pressure of the fuel feed system, followed by loss of fuel system suction feed capability on one engine, and in-flight shutdown of the engine. We are issuing this AD to detect and correct loss of the engine fuel suction feed capability of the fuel system, which in the event of total loss of the fuel boost pumps could result in dual engine flameout, inability to restart the engines, and consequent forced landing of the airplane.

(f) Compliance

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

(g) Repetitive Operational Tests or Maintenance Program Revision

Do the requirements of paragraph (g)(1) or (g)(2) of this AD.

(1) Within 7,500 flight hours or 36 months after the effective date of this AD, whichever occurs first: Do the initial operational test identified in Airworthiness Limitation (AWL) No. 28-AWL-101, Engine Fuel Suction Feed Operational Test, of Section E., AWL–Fuel Systems of Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D626A001-CMR, Revision August 2011 or August 2012, of the Boeing 737-600/700/700C/800/900/900ER Maintenance Planning Data (MPD) Document. Repeat the test

thereafter at intervals not to exceed 7,500 flight hours or 36 months, whichever is earlier. Thereafter, except as provided in paragraph (i) of this AD, no alternative procedure or repetitive test intervals will be allowed. If any test is not considered successful, as specified in AWL No. 28-AWL-101, before further flight, do either paragraph (g)(1)(i) or (g)(1)(ii) of this AD.

(i) Perform all related testing and corrective actions, using a method approved in accordance with the procedures specified in paragraph (i) of this AD.

(ii) Perform all related testing and corrective actions; and repeat the operational test specified in paragraph (g)(1) of this AD.

(2) Within 90 days after the effective date of this AD: Revise the maintenance program to incorporate the limitations specified in AWL No. 28-AWL-101, Engine Fuel Suction Feed Operational Test, of Section E., AWL–Fuel Systems of Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D626A001-CMR, Revision August 2012, of the Boeing 737-600/700/700C/800/900/900ER MPD Document. The initial compliance time for the task is within 7,500 flight hours or 36 months after the effective date of this AD, whichever occurs first.

(h) No Alternative Actions or Intervals

After accomplishing the revision provided by paragraph (g)(2) of this AD, no alternative actions or repetitive test intervals may be used unless the actions or intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (i) of this AD.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

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

(j) Related Information

For more information about this AD, contact Sue Lucier, Aerospace Engineer, Propulsion Branch, ANM-140S, Seattle Aircraft Certification Office, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6438; fax: 425-917-6590; email: suzanne.lucier@faa.gov.

(k) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D626A001-CMR, Revision August 2011, of the Boeing 737-600/700/700C/800/900/900ER Maintenance Planning Data (MPD) Document.

(ii) Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance

Requirements (CMRs), D626A001-CMR, Revision August 2012, of the Boeing 737-600/700/700C/800/900/900ER MPD Document.

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

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

(5) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on July 21, 2013.

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



2013-15-18 Lockheed Martin Corporation/Lockheed Martin Aeronautics Company:
Amendment 39-17534; Docket No. FAA-2012-1078; Directorate Identifier 2011-NM-012-AD.

(a) Effective Date

This AD is effective October 1, 2013.

(b) Affected ADs

This AD supersedes AD 2005-15-01, Amendment 39-14190 (70 FR 42262, July 22, 2005).

(c) Applicability

This AD applies to all Lockheed Martin Corporation/Lockheed Martin Aeronautics Company Model L-1011-385-1, L-1011-385-1-14, L-1011-385-1-15, and L-1011-385-3 airplanes, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 51, Standard practices/structures; 52, Doors; 53, Fuselage; 57, Wings.

(e) Unsafe Condition

This AD was prompted by reports of small cracks in additional areas outside those addressed in AD 2005-15-01, Amendment 39-14190 (70 FR 42262, July 22, 2005), prior to the inspection threshold required by AD 2005-15-01. We are issuing this AD to prevent corrosion or fatigue cracking of certain structural elements, which could result in reduced structural integrity of the airplane.

(f) Compliance

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

(g) Retained Inspections With Revised Service Information and Reduced Compliance Times

This paragraph restates the inspections required by paragraph (a) of AD 2005-15-01, Amendment 39-14190 (70 FR 42262, July 22, 2005), with revised service information and reduced compliance times for paragraph (g)(16) of this AD. At the time specified in the "Initial Compliance Time" column of table 1 to paragraph (g) of this AD, perform structural inspections to detect corrosion or fatigue cracking of certain structural elements of the airplane, in accordance with the applicable service bulletins listed under "Service Bulletin Number, Revision, and Date" in tables I and II of Lockheed Tristar L-1011 Service Bulletin 093-51-041, Revision 1, dated March 3, 2000; or Revision 2, dated March 30, 2010 (The applicable service bulletins are also identified in Table 1 to paragraph (g) of this AD.) As of the effective date of this AD, only Lockheed Tristar L-1011 Service

Bulletin 093-51-041, Revision 2, dated March 30, 2010, may be used for the actions required by this paragraph. Thereafter, repeat the inspections at intervals specified in the “Repetitive Intervals” column of table 1 to paragraph (g) of this AD.

Table 1 to Paragraph (g) of This AD

Lockheed TriStar L-1011 Service Bulletin	Initial compliance time (whichever occurs later between the times in “Inspection Threshold” and “Grace Period”)		Repetitive intervals	Terminating action
	Inspection threshold	Grace period		
(1) 093-53-269, Revision 1, dated October 28, 1997	Before the accumulation of 8,000 total flight cycles or 15,000 total flight hours, whichever occurs first	Within 6,450 flight cycles or 5 years after August 26, 2005 (the effective date of AD 2005-15-01, Amendment 39-14190 (70 FR 42262 , July 22, 2005)), whichever occurs first	At intervals not to exceed 6,450 flight cycles or 5 years, whichever occurs first	(None).
(2) 093-53-274, dated May 28, 1997	Within 14 months after August 26, 2005 (the effective date of AD 2005-15-01, Amendment 39-14190 (70 FR 42262 , July 22, 2005))	(None)	At intervals not to exceed 14 months	(None).
(3) 093-53-275, dated December 10, 1996	Within 6,450 flight cycles or 5 years after August 26, 2005 (the effective date of AD 2005-15-01, Amendment 39-14190 (70 FR 42262 , July 22, 2005)), whichever occurs first	(None)	(None)	(None).

(4) 093-53-276, dated June 17, 1996	At the next Corrosion Prevention and Control Program (CPCP) inspection after August 26, 2005 (the effective date of AD 2005-15-01, Amendment 39-14190 (70 FR 42262 , July 22, 2005))	(None)	At intervals not to exceed the next CPCP inspection	(None).
(5) 093-57-085, Revision 1, dated December 1, 1997	Before the accumulation of 26,000 total flight cycles or 48,000 total flight hours, whichever occurs first	Within 1,800 flight cycles or 3,300 flight hours after August 26, 2005 (the effective date of AD 2005-15-01, Amendment 39-14190 (70 FR 42262 , July 22, 2005)), whichever occurs first	At intervals not to exceed 1,800 flight cycles or 3,300 flight hours, whichever occurs first	Modification in accordance with Lockheed TriStar L-1011 Service Bulletin 093-57-085, Basic Issue, dated May 7, 1993; or Revision 1, dated December 1, 1997.
(6) 093-57-208, Revision 1, dated October 28, 1997	Before the accumulation of 18,000 total flight cycles	Within 6,450 flight cycles or 5 years after August 26, 2005 (the effective date of AD 2005-15-01, Amendment 39-14190 (70 FR 42262 , July 22, 2005)), whichever occurs first	At intervals not to exceed 6,450 flight cycles or 5 years, whichever occurs first	(None).

(7) 093-52-210, dated July 19, 1991, including Lockheed LCC-7622-248, Corrosion Removal and Refurbishment of C1-A Cargo Door Cam Latches, Latch Bellcranks and Matched Latch Support Assemblies, dated February 27, 1990	Within 5,000 flight hours or 18 months after August 26, 2005 (the effective date of AD 2005-15-01, Amendment 39-14190 (70 FR 42262 , July 22, 2005)), whichever occurs first	(None)	(None)	(None).
(8) 093-53-054, Revision 1, dated August 12, 1975	Within 6,450 flight cycles or 5 years after August 26, 2005 (the effective date of AD 2005-15-01, Amendment 39-14190 (70 FR 42262 , July 22, 2005)), whichever occurs first	(None)	(None)	(None).
(9) 093-53-070, Revision 3, dated September 19, 1989	Before the accumulation of 6,000 total flight hours	Within 1,500 flight hours after August 26, 2005 (the effective date of AD 2005-15-01, Amendment 39-14190 (70 FR 42262 , July 22, 2005))	At intervals not to exceed 3,000 flight hours	Modification in accordance with Lockheed TriStar L-1011 Service Bulletin 093-53-070, Basic Issue, dated September 26, 1974; Revision 1, dated January 23, 1975; Revision 2, dated July 7, 1975; or Revision 3, dated September 19, 1989.
(10) 093-53-085, Revision 3, dated December 15, 1989	(i) Part I: Before the accumulation of 20,000 flight cycles or 37,000 total flight hours, whichever occurs first	Part I: Within 1,600 flight cycles or 3,000 flight hours after August 26, 2005 (the effective date of AD 2005-15-01, Amendment 39-14190 (70 FR 42262 , July 22, 2005)), whichever occurs first	Part I: At intervals not to exceed 1,600 flight cycles or 3,000 flight hours, whichever occurs first	Modification in accordance with Lockheed TriStar L-1011 Service Bulletin 093-53-085, Basic Issue, dated September 29, 1975; Revision 1, dated September 3, 1976; or Revision 2, dated February 8, 1988.

	(ii) Part II: Before the accumulation of 30,000 flight cycles or 55,000 total flight hours, whichever occurs first	Part II: Within 5,000 flight cycles or 9,200 flight hours after August 26, 2005 (the effective date of AD 2005-15-01, Amendment 39-14190 (70 FR 42262 , July 22, 2005)), whichever occurs first	Part II: At intervals not to exceed 5,000 flight cycles or 9,200 flight hours, whichever occurs first	Modification in accordance with Lockheed TriStar L-1011 Service Bulletin 093-53-085, Basic Issue, dated September 29, 1975; Revision 1, dated September 3, 1976; or Revision 2, dated February 8, 1988.
(11) 093-53-086, Revision 5, dated April 12, 1990	Before the accumulation of 9,000 flight cycles or 10,000 flight hours, whichever occurs first	Within 1,600 flight cycles or 3,000 flight hours after August 26, 2005 (the effective date of AD 2005-15-01, Amendment 39-14190 (70 FR 42262 , July 22, 2005)), whichever occurs first	At intervals not to exceed 1,600 flight cycles or 3,000 flight hours, whichever occurs first	Modification in accordance with Lockheed TriStar L-1011 Service Bulletin 093-53-086, Basic Issue, dated September 26, 1975; Revision 1, dated November 12, 1975; Revision 2, dated December 12, 1976; Revision 3, dated July 19, 1977; Revision 4, dated July 8, 1985; or Revision 5, dated April 12, 1990.
(12) 093-53-110, Revision 1, dated May 7, 1993	Before the accumulation of 22,000 total flight cycles or 40,000 total flight hours, whichever occurs first	Within 2,200 flight cycles or 4,000 flight hours after August 26, 2005 (the effective date of AD 2005-15-01, Amendment 39-14190 (70 FR 42262 , July 22, 2005)), whichever occurs first	At intervals not to exceed 2,200 flight cycles or 4,000 flight hours, whichever occurs first	Modification in accordance with Lockheed TriStar L-1011 Service Bulletin 093-53-110, Basic Issue, dated August 19, 1991; or Revision 1, dated May 7, 1993.

(13) Change Notification 093-53-260, CN4, dated May 8, 1998	Before the accumulation of 8,000 total flight cycles or 20,000 total flight hours, whichever occurs first	Within 800 flight cycles or 1,500 flight hours after August 26, 2005 (the effective date of AD 2005-15-01, Amendment 39-14190 (70 FR 42262 , July 22, 2005)), whichever occurs first	At intervals not to exceed 800 flight cycles or 1,500 flight hours, whichever occurs first	Inspection and modification in accordance with Part 2.A. of Lockheed TriStar L-1011 Service Bulletin 093-53-260, Basic Issue, dated May 15, 1991.
(14) Change Notification 093-53-266, CN1, dated July 10, 1992	Within 12 months after August 26, 2005 (the effective date of AD 2005-15-01, Amendment 39-14190 (70 FR 42262 , July 22, 2005))	(None)	At intervals not to exceed 90 days	Modification in accordance with Lockheed TriStar L-1011 Service Bulletin 093-53-266, Basic Issue, dated March 2, 1992.
(15) Change Notification 093-57-058, R5-CN1, dated May 3, 1993	Before the accumulation of 20,000 total flight cycles or 37,000 total flight hours, whichever occurs first	Within 1,600 flight cycles or 3,000 flight hours after August 26, 2005 (the effective date of AD 2005-15-01, Amendment 39-14190 (70 FR 42262 , July 22, 2005)), whichever occurs first	At intervals not to exceed 1,600 flight cycles or 3,000 flight hours, whichever occurs first	Modification in accordance with Lockheed TriStar L-1011 Service Bulletin 093-57-058, Basic Issue, dated September 16, 1975; Revision 1, dated December 1, 1976; Revision 2, dated June 30, 1978; Revision 3, dated October 19, 1978; Revision 4, dated July 6, 1981; or Revision 5, dated June 9, 1983.
(16) Change Notification 093-57-195, R3-CN1, dated August 22, 1995; or Lockheed TriStar L-1011 Service Bulletin 093-57-195, Revision 4, dated March 17, 2010	At the applicable time specified in paragraph (j) of this AD	At the applicable time specified in paragraph (j) of this AD	At the applicable time specified in paragraph (k) of this AD	Modification in accordance with Lockheed TriStar L-1011 Service Bulletin 093-57-195, Revision 2, dated July 27, 1990; Revision 3, dated June 30, 1992; or Revision 4, dated March 17, 2010.

<p>(17) Change Notification 093-57-213, CN1, dated February 20, 1996</p>	<p>(i) For Model L-1011-385-1, L-1011-385-1-14, L-1011-385-1-15: Before the accumulation of 15,000 total flight cycles</p>	<p>Within 6,450 flight cycles or 5 years after August 26, 2005 (the effective date of AD 2005-15-01, Amendment 39-14190 (70 FR 42262, July 22, 2005)), whichever occurs first</p>	<p>At intervals not to exceed 6,450 flight cycles or 5 years, whichever occurs first</p>	<p>Repair or modification in accordance with Lockheed TriStar L-1011 Service Bulletin 093-57-213, Basic Issue, dated December 9, 1994.</p>
	<p>(ii) For Model L-1011-385-3: Before the accumulation of 10,000 total flight cycles</p>	<p>Within 6,450 flight cycles or 5 years after August 26, 2005 (the effective date of AD 2005-15-01, Amendment 39-14190 (70 FR 42262, July 22, 2005)), whichever occurs first</p>	<p>At intervals not to exceed 6,450 flight cycles or 5 years, whichever occurs first</p>	<p>Repair or modification in accordance with Lockheed TriStar L-1011 Service Bulletin 093-57-213, Basic Issue, dated December 9, 1994.</p>

(h) Retained Corrective Action With a Certain Compliance Method Removed and Revised Service Information

This paragraph restates the corrective action required by paragraph (b) of AD 2005-15-01, Amendment 39-14190 (70 FR 42262, July 22, 2005), with a certain compliance method removed and revised service information. If any cracking or corrosion is detected during any inspection required by paragraph (g) of this AD, prior to further flight, accomplish the actions specified in paragraph (h)(1), (h)(2), or (h)(3) of this AD.

(1) Repair in accordance with the applicable service bulletin referenced in table I or II of Lockheed Tristar L-1011 Service Bulletin 093-51-041, Revision 1, dated March 3, 2000; or Revision 2, dated March 30, 2010.

(2) Accomplish the terminating modification in accordance with the applicable service bulletin referenced in table I or II of Lockheed Tristar L-1011 Service Bulletin 093-51-041, Revision 1, dated March 3, 2000; or Revision 2, dated March 30, 2010.

(3) Repair in accordance with a method approved by the Manager, Atlanta Aircraft Certification Office (ACO), FAA. Information on additional methods of compliance can be obtained from the Manager, Atlanta ACO.

(i) Retained Terminating Action

This paragraph restates the terminating action required by paragraph (c) of AD 2005-15-01, Amendment 39-14190 (70 FR 42262, July 22, 2005). Within 5 years or 5,000 flight cycles after August 26, 2005 (the effective date of AD 2005-15-01), whichever occurs first, install the terminating modification referenced in the applicable service bulletin listed in table 1 to paragraph (g) of this AD, in accordance with the applicable service bulletin listed in table 1 to paragraph (g) of this AD. Such

installation constitutes terminating action for the applicable structural inspection required by paragraph (g) of this AD.

(j) Newly Revised Initial Inspection Compliance Time for Certain Airplanes

For airplanes identified in Lockheed TriStar L-1011 Service Bulletin 093-57-195, Revision 4, dated March 17, 2010: Do the initial inspection required by paragraph (g)(16) of this AD at the applicable time specified in paragraph (j)(1) or (j)(2) of this AD.

(1) For airplanes having serial numbers (S/Ns) 1002 through 1109 inclusive: At the earlier of the times specified in paragraphs (j)(1)(i) and (j)(1)(ii) of this AD.

(i) Before the accumulation of 20,000 total flight cycles, or within 2,200 flight cycles after August 26, 2005 (the effective date of AD 2005-15-01, Amendment 39-14190 (70 FR 42262, July 22, 2005)), whichever occurs later.

(ii) Before the accumulation of 15,000 total flight cycles, or within 2,200 flight cycles after the effective date of this AD, whichever occurs later.

(2) For airplanes having S/Ns 1110 through 1250 inclusive: At the earlier of the times specified in paragraphs (j)(2)(i) and (j)(2)(ii) of this AD.

(i) Before the accumulation of 30,000 total flight cycles, or within 2,200 flight cycles after August 26, 2005 (the effective date of AD 2005-15-01, Amendment 39-14190 (70 FR 42262, July 22, 2005)), whichever occurs later.

(ii) Before the accumulation of 15,000 total flight cycles, or within 2,200 flight cycles after the effective date of this AD, whichever occurs later.

(k) Newly Revised Repetitive Intervals for Certain Airplanes

For airplanes identified in paragraph (j) of this AD, repeat the inspection required by paragraph (j) of this AD thereafter at the applicable times specified in paragraph (k)(1) or (k)(2) of this AD.

(1) For airplanes having S/Ns 1002 through 1156 inclusive: Repeat the inspection at intervals not to exceed 2,200 flight cycles.

(2) For airplanes having S/Ns 1157 through 1250 inclusive: Repeat the inspection one time within 2,200 flight cycles after the most recent inspection, and thereafter at intervals not to exceed 1,750 flight cycles.

(l) Alternative Methods of Compliance (AMOCs)

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

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

(m) Related Information

For more information about this AD, contact Carl Gray, Aerospace Engineer, Airframe Branch, ACE-117A, FAA, Atlanta Aircraft Certification Office (ACO), 1701 Columbia Avenue, College Park, Georgia 30337; phone: 404-474-5554; fax: 404-474-5605; email: carl.w.gray@faa.gov.

(n) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(3) The following service information was approved for IBR on October 1, 2013.

(i) Lockheed TriStar L-1011 Service Bulletin 093-57-195, Revision 4, dated March 17, 2010.

(ii) Lockheed TriStar L-1011 Service Bulletin 093-51-041, Revision 2, dated March 30, 2010.

(iii) Lockheed TriStar L-1011 Service Bulletin 093-53-269, Revision 1, dated October 28, 1997.

(iv) Lockheed TriStar L-1011 Service Bulletin 093-53-274, dated May 28, 1997.

(v) Lockheed TriStar L-1011 Service Bulletin 093-53-275, dated December 10, 1996.

(vi) Lockheed TriStar L-1011 Service Bulletin 093-53-276, dated June 17, 1996.

(vii) Lockheed TriStar L-1011 Service Bulletin 093-57-208, Revision 1, dated October 28, 1997.

(viii) Lockheed TriStar L-1011 Service Bulletin 093-52-210, dated July 19, 1991, including Lockheed LCC-7622-248, Corrosion Removal and Refurbishment of C1-A Cargo Door Cam Latches, Latch Bellcranks and Matched Latch Support Assemblies, dated February 27, 1990. Pages 1 and 3-8 of this document are dated February 27, 1990. Page 2 is dated February 19, 1990. Page 9 is dated January 4, 1990. Pages 10 and 11 are dated January 5, 1990.

(ix) Lockheed TriStar L-1011 Service Bulletin 093-53-054, Revision 1, dated August 12, 1975.

(x) Lockheed TriStar L-1011 Service Bulletin 093-53-085, Revision 3, dated December 15, 1989. Pages 3, 4, 7-14, and 16-23 are dated February 8, 1988. Pages 1, 2, 5, 6, and 15 are dated December 15, 1989.

(xi) Lockheed TriStar L-1011 Service Bulletin Change Notification 093-53-260, CN4, dated May 8, 1998.

(xii) Lockheed TriStar L-1011 Service Bulletin Change Notification 093-53-266, CN1, dated July 10, 1992.

(xiii) Lockheed TriStar L-1011 Service Bulletin Change Notification 093-57-058, R5-CN1, dated May 3, 1993.

(xiv) Lockheed TriStar L-1011 Service Bulletin Change Notification 093-57-195, R3-CN1, dated August 22, 1995.

(xv) Lockheed TriStar L-1011 Service Bulletin Change Notification 093-57-213, CN1, dated February 20, 1996.

(xvi) Lockheed TriStar L-1011 Service Bulletin 093-57-195, Revision 2, dated July 27, 1990.

(xvii) Lockheed TriStar L-1011 Service Bulletin 093-57-195, Revision 3, dated June 30, 1992. Pages 1-6, 23-28, 33, 34, 41, 42, and 45-52 of this document are identified as Revision 3, dated June 30, 1992; Pages 7-22, 29-32, 35-40, 43, and 44 are identified as Revision 2, dated July 27, 1990.

(xviii) Lockheed TriStar L-1011 Service Bulletin 093-57-213, dated December 9, 1994.

(4) The following service information was approved for IBR on August 26, 2005 (70 FR 42262, July 22, 2005).

(i) Lockheed TriStar L-1011 Service Bulletin 093-51-041, Revision 1, dated March 3, 2000.

(ii) Lockheed TriStar L-1011 Service Bulletin 093-53-070, Basic Issue, dated September 26, 1974.

(iii) Lockheed TriStar L-1011 Service Bulletin 093-53-070, Revision 1, dated January 23, 1975. Pages 1, 4-7, and 13-17 of this document are identified as Revision 1, dated January 23, 1975. Pages 2, 3, and 8-12 of this document are identified as Basic Issue, dated September 26, 1974.

(iv) Lockheed TriStar L-1011 Service Bulletin 093-53-070, Revision 2, dated July 7, 1975. Pages 1, 2, 7, and 9-14 of this document are identified as Revision 2, dated July 7, 1975. Pages 3 and 8 of this document are identified as Basic Issue, dated September 26, 1974. Pages 4-6 and 15-17 of this document are identified as Revision 1, dated January 23, 1975.

(v) Lockheed TriStar L-1011 Service Bulletin 093-53-070, Revision 3, dated September 19, 1989. Pages 1-6 and 8-10 of this document are identified as Revision 3, dated September 19, 1989. Page 7 of this document is identified as Basic Issue, dated September 26, 1974.

(vi) Lockheed TriStar L-1011 Service Bulletin 093-53-085, Basic Issue, dated September 29, 1975.

(vii) Lockheed TriStar L-1011 Service Bulletin 093-53-085, Revision 1, dated September 3, 1976. Pages 1-3, 6, 9-11, and 15 of this document are identified as Revision 1, dated September 3, 1976. Pages 4, 5, 7, 8, 12-14, and 16 of this document are identified as Basic Issue, dated September 29, 1975.

(viii) Lockheed TriStar L-1011 Service Bulletin 093-53-085, Revision 2, dated February 8, 1988.

(ix) Lockheed TriStar L-1011 Service Bulletin 093-53-086, Basic Issue, dated September 26, 1975.

(x) Lockheed TriStar L-1011 Service Bulletin 093-53-086, Revision 1, dated November 12, 1975. Pages 1, 2, 11, and 15 of this document are identified as Revision 1, dated November 12, 1975. Pages 3-10, 12-14, and 16 of this document are identified as Basic Issue, dated September 26, 1975.

(xi) Lockheed TriStar L-1011 Service Bulletin 093-53-086, Revision 2, dated December 12, 1976. Pages 1, 2, 7, 15, and 16 of this document are identified as Revision 2, dated December 12, 1976. Pages 3-6, 8-10, and 12-14 of this document are identified as Basic Issue, dated September 26, 1975. Page 11 of this document is identified as Revision 1, dated November 12, 1975.

(xii) Lockheed TriStar L-1011 Service Bulletin 093-53-086, Revision 3, dated July 19, 1977. Pages 1, 2, 4, 7, 10, 11, and 15 of this document are identified as Revision 3, dated July 19, 1977. Pages 3, 5, 6, 8, 9, and 12-14 of this document are identified as Basic Issue, dated September 26, 1975. Page 16 of this document is identified as Revision 2, dated December 12, 1976.

(xiii) Lockheed TriStar L-1011 Service Bulletin 093-53-086, Revision 4, dated July 8, 1985. Pages 1-4, 15, and 16 of this document are identified as Revision 4, dated July 8, 1985. Pages 5, 6, 8, 9, and 12-14 of this document are identified as Basic Issue, dated September 26, 1975. Pages 7, 10, and 11 of this document are identified as Revision 3, dated July 19, 1977.

(xiv) Lockheed TriStar L-1011 Service Bulletin 093-53-086, Revision 5, dated April 12, 1990. Pages 1-9 and 13 of this document are identified as Revision 5, dated April 12, 1990. Pages 10-12 of this document are identified as Basic Issue, dated September 26, 1975. Page 14 of this document is identified as Revision 4, dated July 8, 1985.

(xv) Lockheed TriStar L-1011 Service Bulletin 093-53-110, Basic Issue, dated August 19, 1991.

(xvi) Lockheed TriStar L-1011 Service Bulletin 093-53-110, Revision 1, dated May 7, 1993. Pages 1-7 and 9-12 of this document are identified as Revision 1, dated May 7, 1993. Page 8 of this document is identified as Basic Issue, dated August 19, 1991.

(xvii) Lockheed TriStar L-1011 Service Bulletin 093-53-260, Basic Issue, dated May 15, 1991.

(xviii) Lockheed TriStar L-1011 Service Bulletin 093-53-266, Basic Issue, dated March 2, 1992.

(xix) Lockheed TriStar L-1011 Service Bulletin 093-57-058, Basic Issue, dated September 16, 1975.

(xx) Lockheed TriStar L-1011 Service Bulletin 093-57-058, Revision 1, dated December 1, 1976. Pages 1, 2, 4, 7, 8, 11, and 15-19 of this document are identified as Revision 1, dated December 1, 1976. Pages 3, 5, 6, 9, 10, and 12-14 of this document are identified as Basic Issue, dated September 16, 1975.

(xxi) Lockheed TriStar L-1011 Service Bulletin 093-57-058, Revision 2, dated June 30, 1978. Pages 1-4, 7, 8, 11, and 15-19 of this document are identified as Revision 2, dated June 30, 1978. Pages 5, 6, 9, 10, and 12-14 of this document are identified as Basic issue, dated September 16, 1975.

(xxii) Lockheed TriStar L-1011 Service Bulletin 093-57-058, Revision 3, dated October 19, 1978. Pages 1-3, 7, 8, 11, and 15-19 of this document are identified as Revision 3, dated October 19, 1978. Page 4 of this document is identified as Revision 2, dated June 30, 1978. Pages 5, 6, 9, 10, and 12-14 of this document are identified as Basic Issue, dated September 16, 1975.

(xxiii) Lockheed TriStar L-1011 Service Bulletin 093-57-058, Revision 4, dated July 6, 1981. Pages 1-3 and 19 of this document are identified as Revision 4, dated July 6, 1981. Pages 4 and 15 of

this document are identified as Revision 2, dated June 30, 1978. Pages 5, 6, 9, 10, and 12-14 of this document are identified as Basic Issue, dated September 16, 1975. Pages 7, 8, 11, and 16-18 of this document are identified as Revision 3, dated October 19, 1978.

(xxiv) Lockheed TriStar L-1011 Service Bulletin 093-57-058, Revision 5, dated June 9, 1983. Pages 1, 3, 4, and 7 of this document are identified as Revision 5, dated June 9, 1983. Page 2 of this document is identified as Revision 4, dated July 6, 1981. Pages 5, 6, 9, 10, and 12-14 of this document are identified as Basic Issue, dated September 16, 1975. Pages 8, 11, and 16-19 of this document are identified as Revision 3, dated October 19, 1978. Page 15 of this document is identified as Revision 2, dated June 30, 1978.

(xxv) Lockheed TriStar L-1011 Service Bulletin 093-57-085, Basic Issue, dated May 7, 1993. This document was incorrectly identified as "Revision 1" in the "Service bulletin" column of Table 2—Material Incorporated by Reference in AD 2005-15-01, Amendment 39-14190 (70 FR 42262, July 22, 2005).

(xxvi) Lockheed TriStar L-1011 Service Bulletin 093-57-085, Revision 1, dated December 1, 1997. Pages 1-7, 9, and 10 of this document are identified as Revision 1, dated December 1, 1997. Pages 8 and 11-17 are identified as Basic issue, dated May 7, 1993.

(5) For Lockheed service information identified in this AD, contact Lockheed Martin Corporation/Lockheed Martin Aeronautics Company, L1011 Technical Support Center, Dept. 6A4M, Zone 0579, 86 South Cobb Drive, Marietta, GA 30063-0579; telephone 770-494-5444; fax 770-494-5445; email L1011.support@lmco.com; Internet <http://www.lockheedmartin.com/ams/tools/TechPubs.html>.

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

(7) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on July 21, 2013.

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



2013-16-23 Rolls-Royce plc: Amendment 39-17561; Docket No. FAA-2013-0143; Directorate Identifier 2013-NE-06-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective October 8, 2013.

(b) Affected ADs

None.

(c) Applicability

This AD applies to:

- (1) All Rolls-Royce plc (RR) RB211-524G2-19; -524G3-19; -524H2-19; and -524H-36 turbofan engines;
- (2) RR RB211-524B-02; -524B2-19; -524B3-02; -524B4-02; -524C2-19; -524D4-19; -524D4-B-19; and -524D4-39 turbofan engines that have incorporated RR Service Bulletin (SB) No. RB.211-72-7221, dated December 7, 1984;
- (3) All RR RB211-535C-37; -535E4-37; -535E4-B-37, and -535E4-B-75 turbofan engines, except those engines that have incorporated RR SB No. RB.211-72-C230, Revision 1, dated November 22, 2012, or Initial Issue, dated November 16, 1999.
- (4) This AD does not apply to engines listed in paragraphs (c)(1) through (c)(3) of this AD that have installed a front combustion liner (FCL) metering panel delivered from RR after April 23, 2007.

(d) Reason

This AD was prompted by the discovery of a cracked and distorted FCL metering panel, made from N75 material. We are issuing this AD to prevent hot gases from burning through the engine casing, which could result in an under-cowl fire and damage to the airplane.

(e) Actions and Compliance

Unless already done, do the following actions.

- (1) At the next engine shop visit or within 625 flight cycles, whichever occurs first after the effective date of this AD, perform a one-time inspection of the FCL metering panel to determine if it is made from N75 material, and if made from N75 material, replace it with one made from C263 material.
 - (2) To inspect RR RB211-524 series turbofan engines:
 - (i) Use paragraph 3. of the Accomplishment Instructions of RR Alert Non-Modification Service Bulletin (NMSB) No. RB.211-72-AG183, Revision 3, dated December 6, 2012; or
 - (ii) You may use paragraph 3.B. of the Accomplishment Instructions in RR Alert NMSB No. RB.211-72-AF572, Revision 2, dated April 2, 2009, or Revision 1, dated October 10, 2008, or paragraph 3. of RR Alert NMSB No. RB.211-72-AG183, Revision 3, dated December 6, 2012, for engine shop visit inspections.

(iii) You may use paragraph 3.B.(5)(p)(i) of RR Alert NMSB No. RB.211-72-AG183, Revision 3, dated December 6, 2012, and a spectroscopic analysis, instead of paragraphs 3.B.(3) through 3.B.(5)(p), and paragraphs 3.C.(5)(q) and (r).

(iv) You may use a local facility in the context of an FAA-accepted maintenance or quality plan to perform the spectroscopic analysis.

(3) To inspect RR RB211-535 series turbofan engines:

(i) Use paragraph 3. of the Accomplishment Instructions of RR Alert NMSB No. RB.211-72-AG046, Revision 3, dated December 6, 2012; or

(ii) You may use paragraph 3.B. of the Accomplishment Instructions in RR Alert NMSB No. RB.211-72-AF572, Revision 2, dated April 2, 2009, or Revision 1, dated October 10, 2008, or paragraph 3. of RR Alert NMSB No. RB.211-72-AG046, Revision 3, dated December 6, 2012, for engine shop visit inspections.

(iii) You may use paragraph 3.C.(5)(p)(i) of RR Alert NMSB No. RB.211-72-AG046, Revision 3, dated December 6, 2012, and a spectroscopic analysis, instead of paragraphs 3.C.(3) through 3.C.(5)(p), and paragraph 3.C.(5)(q).

(iv) You may use a local facility to perform the spectroscopic analysis in the context of an FAA-accepted maintenance or quality plan.

(v) The accomplishment instructions in paragraphs 3.B.(6)(g)(iii) and 3.B.(6)(j)(i) of RR Alert NMSB No. RB.211-72-AG046, Revision 3, dated December 6, 2012, specify use of RR tooling for the post-inspection fuel manifold pressure test. However, you may use locally sourced tooling in the context of an FAA-accepted maintenance or quality plan.

(f) Credit for Previous Actions

(1) You have satisfied the inspection requirement of paragraph (e) of this AD if, before the effective date of this AD, you performed the actions prescribed in this AD using:

(i) RR Alert NMSB No. RB.211-72-AG183, Revision 3, dated December 6, 2012, or Revision 2, dated June 8, 2012, or Revision 1, dated November 16, 2010, or Initial Issue, dated December 17, 2009; or

(ii) RR Alert NMSB No. RB.211-72-AG046, Revision 3, dated December 6, 2012, or Revision 2, dated June 7, 2012, or Revision 1, dated January 17, 2011, or Initial Issue, dated December 17, 2009; or

(iii) RR Alert NMSB No. RB.211-72-AF572, Revision 2, dated April 2, 2009, or Revision 1, dated October 10, 2008, or Initial Issue, dated October 15, 2007; or

(iv) RR Repeater Technical Variance No. 75295, Issue 1, dated April 20, 2007.

(g) Definition

For the purpose of this AD, a shop visit is the induction of an engine into the shop for maintenance or overhaul. The separation of engine flanges solely for the purposes of transporting the engine without subsequent engine maintenance does not constitute an engine shop visit.

(h) Alternative Methods of Compliance (AMOCs)

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

(i) Related Information

For more information about this AD, contact Robert Green, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7754; fax: 781-238 7199; email: robert.green@faa.gov.

Refer to European Aviation Safety Agency AD 2012-0215R1, dated January 4, 2013, for more information. You may examine the AD on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2013-0143-0009>.

(j) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Rolls-Royce plc (RR) Alert Non-Modification Service Bulletin (NMSB) No. RB.211-72-AF572, Revision 2, dated April 2, 2009.

(ii) RR Alert NMSB No. RB.211-72-AF572, Revision 1, dated October 10, 2008.

(iii) RR Alert NMSB No. RB.211-72-AG183, Revision 3, dated December 6, 2012.

(iv) RR Alert NMSB No. RB.211-72-AG046, Revision 3, dated December 6, 2012.

(3) For Rolls-Royce plc service information identified in this AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE248BJ; phone: 011-44-1332-242424; fax: 011-44-1332-249936; email: http://www.rolls-royce.com/contact/civil_team.jsp; Internet: <https://www.aeromanager.com>.

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

(5) You may view this service information 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 August 7, 2013.

Colleen M. D'Alessandro,
Assistant Manager, Engine & Propeller Directorate,
Aircraft Certification Service.



2013-16-24 The Boeing Company: Amendment 39-17562; Docket No. FAA-2013-0364; Directorate Identifier 2011-NM-114-AD.

(a) Effective Date

This AD is effective October 9, 2013.

(b) Affected ADs

This AD supersedes AD 90-23-14, Amendment 39-6801 (55 FR 46652, November 6, 1990).

(c) Applicability

This AD applies to The Boeing Company Model 747-100, 747-100B, 747-200B, 747-200C, 747-200F, 747-300, 747SR, and 747SP series airplanes, certificated in any category, as identified in Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010.

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by a report of cracks up to 18.5 inches that were found at stringer (S)-6L and S-6R on several airplanes, and subsequent analysis results that indicated that the protruding head fastener modification and related post-modification inspections required by AD 90-23-14, Amendment 39-6801 (Docket No. 90-NM-110-AD; 55 FR 46652, November 6, 1990) are not adequate to prevent cracking at the upper row of fasteners in the S-6 lap joint before the cracks reach a critical length. We are issuing this AD to detect and correct cracking at the upper row of fasteners in the S-6 lap joint, which could result in a sudden loss of cabin pressurization and the inability of the fuselage to withstand failsafe loads.

(f) Compliance

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

(g) Retained Inspection for Unmodified Airplanes With Revised Service Information

This paragraph restates the requirements of paragraph (A) of AD 90-23-14, Amendment 39-6801 (Docket No. 90-NM-110-AD; 55 FR 46652, November 6, 1990), with revised service information. For airplanes identified in Boeing Service Bulletin 747-53-2253, including Addendum, Revision 2, dated March 29, 1990, and that have not been modified as specified in Boeing Service Bulletin 747-53-2253, including Addendum, Revision 2, dated March 29, 1990; in accordance with the schedule indicated in paragraphs (g)(1)(i) and (g)(1)(ii) of this AD, perform a high frequency eddy current

(HFEC) inspection of the fuselage lap joint for cracks between body station (BS) 340 and BS 400, or aft as far as the crew door, at stringer S-6L and S-6R, in accordance with Boeing Service Bulletin 747-53-2253, including Addendum, Revision 2, dated March 29, 1990; or Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010. As of the effective date of this AD, only Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010, may be used to accomplish the actions required by this paragraph.

(1) The inspection schedule is specified in paragraphs (g)(1)(i) and (g)(1)(ii) of this AD.

(i) Unless previously accomplished within the last 2,750 landings, perform the initial inspection within the next 250 landings after December 11, 1990 (the effective date of AD 90-23-14, Amendment 39-6801 (Docket No. 90-NM-110-AD; 55 FR 46652, November 6, 1990)), or prior to the accumulation of 10,000 landings after the modification, whichever occurs later.

(ii) Repeat the inspection thereafter at intervals not to exceed 3,000 landings.

(2) If cracks are found, repair prior to further flight, in accordance with Boeing Service Bulletin 747-53-2253, including Addendum, Revision 2, dated March 29, 1990; or Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010. As of the effective date of this AD, only Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010, may be used to accomplish the actions required by this paragraph.

(h) Retained Inspection for Modified Airplanes With Revised Service Information

This paragraph restates the requirements of paragraph (B) of AD 90-23-14, Amendment 39-6801 (Docket No. 90-NM-110-AD; 55 FR 46652, November 6, 1990), with revised service information. For airplanes identified in Boeing Service Bulletin 747-53-2253, including Addendum, Revision 2, dated March 29, 1990, and that have been modified as specified in Boeing Service Bulletin 747-53-2253, including Addendum, Revision 2, dated March 29, 1990: In accordance with the schedule specified in paragraphs (h)(1)(i) and (h)(1)(ii) of this AD, perform an HFEC inspection of the fuselage lap joint for cracks between BS 340 and BS 400, or aft as far as the crew door, at S-6L and S-6R, in accordance with Boeing Service Bulletin 747-53-2253, including Addendum, Revision 2, dated March 29, 1990, or Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010. As of the effective date of this AD, use only Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010, to accomplish the action required by this paragraph. Accomplishment of the actions required by paragraph (k) of this AD terminates the requirements of this paragraph.

(1) The inspection schedule is specified in paragraphs (h)(1)(i) and (h)(1)(ii) of this AD.

(i) Unless previously accomplished within the last 2,750 landings, perform the initial inspection within the next 250 landings after December 11, 1990 (the effective date of AD 90-23-14, Amendment 39-6801 (Docket No. 90-NM-110-AD; 55 FR 46652, November 6, 1990)), or prior to the accumulation of 10,000 landings after the modification, whichever occurs later.

(ii) Repeat the inspection thereafter at intervals not to exceed 3,000 landings.

(2) If cracks are found, repair prior to further flight, in accordance with Boeing Service Bulletin 747-53-2253, including Addendum, Revision 2, dated March 29, 1990; or Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010. As of the effective date of this AD, only Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010, may be used to accomplish the actions required by this paragraph.

(i) Retained Landing Determination

This paragraph restates the provisions of paragraph (C) of AD 90-23-14, Amendment 39-6801 (Docket No. 90-NM-110-AD; 55 FR 46652, November 6, 1990), with a compliance time limitation. On or before the effective date of this AD: For purposes of complying with paragraphs (g) and (h) of this AD, the number of landings may be determined to be equal to the number of pressurization cycles where the cabin pressure differential was greater than 1.5 pounds per square inch (psi). After

the effective date of this AD, every landing must be used for compliance with paragraphs (g) and (h) of this AD, regardless of cabin pressure differential cycles.

(j) Retained Inspection Adjustment Factor

This paragraph restates the requirements of paragraph (D) of AD 90-23-14, Amendment 39-6801 (Docket No. 90-NM-110-AD; 55 FR 46652, November 6, 1990), with a compliance time limitation. For Model 747SR airplanes only: On or before the effective date of this AD, based on a continued mixed operation of lower cabin differentials, the initial inspection thresholds and the repetitive inspection intervals specified in paragraphs (g) and (h) of this AD may be multiplied by a 1.2 adjustment factor. After the effective date of this AD, the 1.2 adjustment factor is not allowed.

(k) New Inspections: Groups 1 Through 5 Airplanes

For airplanes in Groups 1 through 5, as identified in Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010: At the time specified in Table 1 of paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010—except that where Table 1 of paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010, refers to a compliance time of 250 flight cycles after December 11, 1990 (the effective date of AD 90-23-14, Amendment 39-6801 (Docket No. 90-NM-110-AD; 55 FR 46652, November 6, 1990)), the compliance time is 250 flight cycles after the effective date of this AD—do external detailed and HFEC inspections for cracks in the stringer 6 skin lap splice, and do all applicable corrective actions, as applicable, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010, except as required by paragraph (o) of this AD. Do all applicable corrective actions at the applicable time specified in paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010. Accomplishment of the actions required by this paragraph terminates the requirements of paragraphs (g) and (h) of this AD.

(l) New Repetitive Pre-Modification Inspections: Groups 1 Through 5 Airplanes

For airplanes in Groups 1 through 5, as identified in Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010: Repeat the inspections required by paragraph (k) of this AD at the applicable time specified in paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010, until accomplishment of the modification required by paragraph (m) of this AD.

(m) New Modification: Groups 1 Through 5 Airplanes

(1) For airplanes in Groups 1 through 5, as identified in Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010, on which the structural repair manual (SRM) repair specified in Part 1 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010, has not been done: Before the accumulation of 20,000 total flight cycles, or within 1,000 flight cycles after the effective date of this AD, whichever occurs later, install the doubler modification, and do all applicable related investigative and corrective actions, in accordance with Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010. All applicable related investigative and corrective actions must be done before further flight. Compliance with the requirements of this paragraph terminates the requirements of paragraphs (k) and (l) of this AD.

(2) For airplanes in Groups 1 through 5, as identified in Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010, on which the SRM repair specified in Part 1 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010, has been done: Within 3,000 flight cycles after accomplishing the SRM repair or within 1,000 flight cycles after the effective date of this AD, whichever occurs later, install the doubler modification, and do all applicable related investigative and corrective actions, in accordance with Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010. All applicable related investigative and corrective actions must be done before further flight. Compliance with the requirements of this paragraph terminates the requirements of paragraphs (k) and (l) of this AD.

(n) New Repetitive Post-Modification Inspections: Modified Airplanes

For airplanes modified as specified in Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010, at the applicable time specified in Table 3 or 4 of paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010: Do detailed and eddy current inspections to detect cracking of the skin, frames, and tear straps, as applicable, in accordance with Part 4 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010. If any crack is found, repair before further flight using a method approved in accordance with the procedures specified in paragraph (q) of this AD. Repeat the applicable inspections thereafter at the applicable times specified in paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010.

(o) Exceptions to Service Information Specifications

(1) If any cracking is found during any inspection required by this AD, and Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010, specifies to contact Boeing for appropriate action: Before further flight, repair the crack using a method approved in accordance with the procedures specified in paragraph (q) of this AD.

(2) Although Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010, specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(3) As of the effective date of this AD, if any cracking is found during any inspection required by this AD, and Boeing Service Bulletin 747-53-2253, including Addendum, Revision 2, dated March 29, 1990, specifies to contact Boeing for appropriate action: Before further flight, repair the crack using a method approved in accordance with the procedures specified in paragraph (q) of this AD.

(p) Credit for Previous Actions

This paragraph provides credit for the repairs and doubler modifications required by paragraphs (k) and (m) of this AD, if those actions were performed before the effective date of this AD using the service information specified in paragraphs (p)(1) through (p)(4) of this AD. Post-modification inspections must continue, as required by paragraph (n) of this AD.

(1) Boeing Service Bulletin 747-53-2253, dated December 14, 1984, which is not incorporated by reference in this AD.

(2) Boeing Service Bulletin 747-53-2253, Revision 1, dated January 25, 1990, which is not incorporated by reference in this AD.

(3) Boeing Service Bulletin 747-53-2253, including Addendum, Revision 2, dated March 29, 1990.

(4) Boeing Service Bulletin 747-53-2253, Revision 3, dated March 24, 1994, which is not incorporated by reference in this AD.

(q) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

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

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

(4) AMOCs approved previously in accordance with AD 90-23-14, Amendment 39-6801 (Docket No. 90-NM-110-AD; 55 FR 46652, November 6, 1990), are approved as AMOCs for the corresponding provisions of this AD.

(5) AMOCs approved previously for the ADs specified in paragraphs (q)(5)(i) through (q)(5)(vi) of this AD, for repair and doubler modification installations in the area affected by Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010, are approved as AMOCs for the actions specified in paragraphs (g), (h), (k), (l), and (m) of this AD. The post-modification inspections required by paragraph (n) of this AD must be accomplished.

(i) AD 2010-10-05, Amendment 39-16284 (75 FR 27424, May 17, 2010).

(ii) AD 2010-09-03, Amendment 39-16268 (75 FR 22514, April 29, 2010).

(iii) AD 2009-04-16, Amendment 39-15822 (74 FR 8737, February 26, 2009).

(iv) AD 91-11-01, Amendment 39-6997 (56 FR 22306, May 15, 1991).

(v) AD 90-06-06, Amendment 39-6490 (55 FR 8374, March 7, 1990).

(vi) AD 2006-24-02, Amendment 39-14831 (71 FR 67445, November 22, 2006).

(r) Related Information

(1) For more information about this AD, contact Bill Ashforth, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle ACO, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6432; fax: 425-917-6590; email: bill.ashforth@faa.gov.

(2) Service information that is referenced in this AD that is not incorporated by reference may be obtained at the addresses specified in paragraphs (s)(4) and (s)(5) of this AD.

(s) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(3) The following service information was approved for IBR on October 9, 2013.

(i) Boeing Service Bulletin 747-53-2253, including Addendum, Revision 2, dated March 29, 1990.

(ii) Boeing Special Attention Service Bulletin 747-53-2253, Revision 4, dated September 9, 2010.

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

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

(6) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on August 2, 2013.

Ross Landes,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.



2013-16-25 Bombardier, Inc.: Amendment 39-17563; Docket No. FAA-2012-1003; Directorate Identifier 2012-NM-064-AD.

(a) Effective Date

This AD becomes effective October 4, 2013.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes, certificated in any category, serial numbers (S/Ns) 4001 through 4399 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 26, Fire protection.

(e) Reason

This AD was prompted by reports of advance pneumatic detectors (APDs) for engine fire/overheat detector assemblies failing to reset after activation due to permanent deformation of the detector switch diaphragm after being exposed to high temperatures. We are issuing this AD to prevent a continued engine fire indication in the cockpit after the actual fire has been extinguished, which is misleading and might influence the pilot to conduct a potentially hazardous "off-airport" landing.

(f) Compliance

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

(g) Installation

Within 6,000 flight hours or 30 months after the effective date of this AD, whichever occurs first, replace the APDs as specified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD, as applicable.

(1) For airplanes having S/Ns 4001 through 4373 inclusive: For the nacelle of the engine primary zone, remove any APD having part number (P/N) 10-1098 and install a new APD having P/N 10-1098-01, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-26-08, Revision B, dated September 24, 2012.

(2) For airplanes having S/Ns 4001 through 4373 inclusive: For the nacelle of the landing gear primary zone, remove any APD having P/N 10-1097 or 10-1097-01 and install a new APD having

P/N 10-1097-02, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-26-09, Revision A, dated May 12, 2011.

(3) For all airplanes: For the propeller engine controller, remove any APD having P/N 10-1096, 10-1096-01, or 10-1096-02 (serial number is all numeric characters), and install a new APD having P/N 10-1096-02 (serial number is three alpha and four numeric characters), in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-26-12, Revision B, dated October 12, 2012.

(h) Credit for Previous Actions

(1) This paragraph provides credit for actions required by paragraph (g)(1) of this AD, if those actions were performed before the effective date of this AD using the service information specified in paragraph (h)(1)(i) or (h)(1)(ii) of this AD, which are not incorporated by reference in this AD.

(i) Bombardier Service Bulletin 84-26-08, dated March 11, 2011.

(ii) Bombardier Service Bulletin 84-26-08, Revision A, dated May 12, 2011.

(2) This paragraph provides credit for actions required by paragraph (g)(2) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 84-26-09, dated March 11, 2011, which is not incorporated by reference in this AD.

(3) This paragraph provides credit for actions required by paragraph (g)(3) of this AD, if those actions were performed before the effective date of this AD using the service information specified in paragraph (h)(3)(i) or (h)(3)(ii) of this AD, which are not incorporated by reference in this AD.

(i) Bombardier Service Bulletin 84-26-12, dated October 12, 2011.

(ii) Bombardier Service Bulletin 84-26-12, Revision A, dated December 13, 2011.

(i) Other FAA AD Provisions

The following provisions also apply to this AD:

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

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

(j) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information Canadian Airworthiness Directive CF-2012-07R1, effective December 21, 2012, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov>.

(2) Service information identified in this AD that is not incorporated by reference may be obtained at the address specified in paragraphs (k)(3) and (k)(4) of this AD.

(k) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Bombardier Service Bulletin 84-26-08, Revision B, dated September 24, 2012.

(ii) Bombardier Service Bulletin 84-26-09, Revision A, dated May 12, 2011.

(iii) Bombardier Service Bulletin 84-26-12, Revision B, dated October 12, 2012.

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

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

(5) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on August 1, 2013.

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



2013-16-26 Airbus: Amendment 39-17564. Docket No. FAA-2013-0424; Directorate Identifier 2013-NM-014-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective October 4, 2013.

(b) Affected ADs

None.

(c) Applicability

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

(d) Subject

Air Transport Association (ATA) of America Code 52, Doors.

(e) Reason

This AD was prompted by reports of cracked adjacent frame forks of a forward cargo door. We are issuing this AD to detect and correct cracked or ruptured cargo door frames, which could result in reduced structural integrity of the forward or aft cargo door.

(f) Compliance

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

(g) Inspections for Certain Airplanes

For Model A330-200, -200 Freighter, and -300 airplanes up to MSN 0162 inclusive, except those on which Airbus Service Bulletin A330-52-3044 has been embodied in service; and for Model A340-200 and -300 airplanes up to MSN 0164 inclusive, except those on which Airbus Service Bulletin A340-52-4054 has been embodied in service: Before the accumulation of 15,800 total flight cycles since the airplane's first flight or within 100 flight cycles after the effective date of this AD, whichever occurs later, do a detailed inspection of the outer skin rivets at the frame fork end of frame (FR)60 and FR60A of the aft cargo door for sheared, loose, or missing rivets; and do a detailed inspection of the whole FR60 and FR60A forks for cracking and for sheared, loose, or missing rivets at the frame web and flanges; in accordance with Airbus Alert Operator Transmission (AOT) A330-A52L001-12, dated December 3, 2012; or Airbus AOT A340-A52L002-12, dated December 3, 2012; as applicable. Repeat the inspections thereafter at intervals not to exceed 400 flight cycles.

(h) Inspections for All Airplanes

Within the applicable compliance time specified in paragraph (h)(1) or (h)(2) of this AD, do a detailed inspection of outer skin rivets at the frame fork end of FR21 and FR20B of the forward cargo door for sheared, loose, or missing rivets; and do a detailed inspection of the whole FR21 and FR20B forks for cracks and for sheared, loose, or missing rivets at the frame web and flanges; in accordance with Airbus AOT A330-A52L003-12, dated December 3, 2012; or Airbus AOT A340-A52L004-12, dated December 3, 2012; as applicable. Repeat this inspection thereafter at intervals not to exceed 800 flight cycles.

(1) For airplanes having less than 18,400 total flight cycles since the airplane's first flight as of the effective date of this AD: Before the accumulation of 10,600 total flight cycles since the airplane's first flight, or within 100 flight cycles after the effective date of this AD, whichever occurs later.

(2) For airplanes having 18,400 total flight cycles or more since the airplane's first flight as of the effective date of this AD: Within 50 flight cycles after the effective date of this AD.

(i) Repair

If any cracking, or sheared, loose, or missing rivet is found during any inspection required by this AD, before further flight, repair using a method approved by either the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA) (or its delegated agent).

(j) Non-Terminating Action

Doing the repair required by paragraph (i) of this AD is not terminating action for the repetitive inspections required by paragraphs (g) and (h) of this AD for that cargo door, unless the repair instruction specifically states it is terminating action.

(k) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1138; fax (425) 227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

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

(l) Related Information

Refer to Mandatory Continuing Airworthiness Information EASA Airworthiness Directive 2012-0274, dated December 21, 2012, for related information, which can be found in the AD docket on the Internet at <http://www.regulations.gov>.

(m) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Airbus Alert Operator Transmission A330-A52L001-12, dated December 3, 2012. The first page of this document contains the document number and date; no other pages contain this information.

(ii) Airbus Alert Operator Transmission A330-A52L003-12, dated December 3, 2012. The first page of this document contains the document number and date; no other pages contain this information.

(iii) Airbus Alert Operator Transmission A340-A52L002-12, dated December 3, 2012. The first page of this document contains the document number and date; no other pages contain this information.

(iv) Airbus Alert Operator Transmission A340-A52L004-12, dated December 3, 2012. The first page of this document contains the document number and date; no other pages contain this information.

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

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

(5) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on August 9, 2013.

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



2013-17-03 Airbus: Amendment 39-17567; Docket No. FAA-2013-0422; Directorate Identifier 2012-NM-097-AD.

(a) Effective Date

This AD is effective October 4, 2013.

(b) Affected ADs

None.

(c) Applicability

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

(d) Subject

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

(e) Reason

This AD was prompted by reports of wing tip brakes (WTBs) losing their braking function in service due to heavy wear on the brake discs. We are issuing this AD to detect and correct failure of the WTB and consequent loss of control of the airplane.

(f) Compliance

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

(g) Part Number Determination

Within 30 days after the effective date of this AD: Inspect to determine the part number (P/N) of the four WTBs of the flap and slat systems, in accordance with the Instructions of Airbus Alert Operators Transmission (AOT) A27L001-12, Revision 01, dated April 27, 2012. A review of the Airbus airplane inspection report (AIR) or airplane maintenance records is acceptable to identify the part number of the WTB installed, provided that part number can be conclusively determined from that review.

(h) Repetitive Operational Tests

For any WTB having P/N 1007A0000-03, P/N 1007A0000-04, or P/N 1007A0000-05, as determined by paragraph (g) of this AD: At the later of the times specified in paragraphs (h)(1) and (h)(2) of this AD, and thereafter at intervals not to exceed 1,000 flight hours, perform an operational test of the WTB on the affected flap and/or slat systems in accordance with the Instructions of Airbus AOT A27L001-12, Revision 01, dated April 27, 2012.

(1) Within 1,000 flight hours since the last accomplishment of A330/A340 Maintenance Review Board Report (MRBR) tasks 27.50.00/14 and 27.80.00/10, or since first flight of the airplane, whichever occurs later.

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

(i) Replacement of WTBs That Fail the Operational Test

If any WTB operational test fails, before further flight, replace the affected WTB with a serviceable WTB, in accordance with the Instructions of Airbus AOT A27L001-12, Revision 01, dated April 27, 2012. Installation of a WTB having P/N 1007A0000-03, P/N 1007A0000-04, or P/N 1007A0000-05, does not constitute terminating action for the repetitive tests required by paragraph (h) of this AD.

(j) Replacement of WTBs

Within 26 months after the effective date of this AD, replace each WTB having P/N 1007A0000-03, P/N 1007A0000-04, or P/N 1007A0000-05 with a WTB having P/N 1007A0000-06, in accordance with the Instructions of Airbus AOT A27L001-12, Revision 01, dated April 27, 2012. Accomplishing the replacement required by this paragraph constitutes terminating action for the repetitive operational tests required by paragraph (h) of this AD.

(k) Optional Installation

As an alternative to accomplishing the replacement required by paragraph (j) of this AD, installation of a WTB having P/N 1007B0000-01, in accordance with the Instructions of Airbus AOT A27L001-12, Revision 01, dated April 27, 2012, is acceptable for compliance with the requirements of paragraph (j) of this AD and constitutes terminating action for the repetitive operational tests required by paragraph (h) of this AD.

(l) Parts Installation Prohibition and Limitation

(1) For airplanes on which Airbus Modification 43512 has been embodied in production: As of the effective date of this AD, installing a WTB having P/N 1007A0000-03, P/N 1007A0000-04, or P/N 1007A0000-05 is not allowed.

(2) For airplanes on which Airbus Modification 43512 has not been embodied in production: Installing a WTB having P/N 1007A0000-03, P/N 1007A0000-04, or P/N 1007A0000-05 is allowed; provided that after its installation the operational test is performed before further flight, and passed successfully, in accordance with the Instructions of Airbus AOT A27L001-12, Revision 01, dated April 27, 2012.

(m) Credit for Previous Actions

This paragraph provides credit for actions required by paragraphs (g), (h), (i), (j), and (k) of this AD, if those actions were performed before the effective date of this AD using Airbus AOT A27L001-12, dated April 26, 2012, which is not incorporated by reference in this AD.

(n) Reporting to Airbus

Submit a report of the initial identification of the part numbers of the WTBs required by paragraph (g) of this AD, and a report of the findings of each operational test required by paragraph (h) of this AD (both positive and negative), to Airbus, Customer Services, Engineering and Technical Support, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex France, Attn: Daniel Lopez-Fernandez, SEEL6; fax: (+33) 5 61 93 04 52; email: daniel.lopez-fernandez@airbus.com; at the applicable time specified in paragraph (n)(1) or (n)(2) of this AD.

(1) If the action was done on or after the effective date of this AD: Submit the report within 90 days after accomplishing the action.

(2) If the action was done before the effective date of this AD: Submit the report within 90 days after the effective date of this AD.

(o) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1138; fax (425) 227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

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

(3) Reporting Requirements: A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing Instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW., Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(p) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information, European Aviation Safety Agency Airworthiness Directive 2012-0082, dated May 15, 2012, for related information, which can be found in the AD docket on the Internet at <http://www.regulations.gov>.

(2) Service information identified in this AD that is not incorporated by reference may be obtained at the addresses specified in paragraphs (q)(3) and (q)(4) of this AD.

(q) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Airbus Alert Operators Transmission A27L001-12, Revision 01, dated April 27, 2012.

(ii) Reserved.

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

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

(5) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on August 9, 2013.

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



2013-17-05 Bombardier, Inc.: Amendment 39-17569; Docket No. FAA-2013-0459; Directorate Identifier 2013-NM-044-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective October 4, 2013.

(b) Affected ADs

None.

(c) Applicability

This AD applies to the airplanes specified in paragraphs (c)(1), (c)(2), and (c)(3) of this AD, certificated in any category.

(1) Bombardier, Inc. Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, serial numbers 10002 through 10999 inclusive.

(2) Bombardier, Inc. Model CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900) airplanes, serial numbers 15001 through 15990 inclusive.

(3) Bombardier, Inc. Model CL-600-2E25 (Regional Jet Series 1000) airplanes, serial numbers 19001 through 19990 inclusive.

(d) Subject

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

(e) Reason

This AD was prompted by reports of erratic pitch movements and oscillatory behaviors of the elevator control system. We are issuing this AD to prevent erratic pitch movement and transient accelerations, which could result in a significant pitch upset, and injuries to passengers and flightcrew.

(f) Compliance

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

(g) Repetitive Replacement of the Bellcrank Supports

For any airplane with bellcrank supports having part numbers AV670-23350-001 (left side) and AV670-23350-002 (right side), on the inner rear spar of the horizontal stabilizer: At the applicable time specified in paragraph (g)(1), (g)(2), (g)(3), or (g)(4) of this AD, replace the affected bellcrank supports with new bellcrank supports, in accordance with the Accomplishment Instructions of

Bombardier Service Bulletin 670BA-27-064, dated December 11, 2012. Repeat the replacement thereafter at intervals not to exceed 20,000 flight hours.

(1) For airplanes that have, as of the effective date of this AD, accumulated 18,000 total flight hours or less: Replace before the accumulation of 24,600 total flight hours.

(2) For airplanes that have, as of the effective date of this AD, accumulated more than 18,000 total flight hours, but 23,400 total flight hours or less: Replace within 6,600 flight hours after the effective date of this AD.

(3) For airplanes that have, as of the effective date of this AD, accumulated more than 23,400 total flight hours, but 28,500 total flight hours or less: Replace before the accumulation of 30,000 total flight hours.

(4) For airplanes that have, as of the effective date of this AD, accumulated more than 28,500 total flight hours: Within 1,500 flight hours after the effective date of this AD.

(h) Other FAA AD Provisions

The following provisions also apply to this AD:

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

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

(i) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2013-03, dated February 5, 2013, for related information, which can be found in the AD docket on the Internet at <http://www.regulations.gov>.

(j) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Bombardier Service Bulletin 670BA-27-064, dated December 11, 2012.

(ii) Reserved.

(3) 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; email thd.crj@aero.bombardier.com; Internet <http://www.bombardier.com>.

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

(5) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on August 9, 2013.
Jeffrey E. Duven,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.



2013-17-09 Airbus: Amendment 39-17573. Docket No. FAA-2013-0094; Directorate Identifier 2012-NM-160-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective October 9, 2013.

(b) Affected ADs

None.

(c) Applicability

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

(d) Subject

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

(e) Reason

This AD was prompted by reports that certain trimmable horizontal stabilizer actuators (THSA) were found with corrosion that affected the ballscrew lower splines between the tie-bar and screw-jack. We are issuing this AD to detect and correct corrosion in the ballscrew lower splines, which, if the ballscrew ruptured, could lead to transmission of THSA torque loads from the ballscrew to the tie-bar, prompting THSA blowback, and possible loss of control of the airplane.

(f) Compliance

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

(g) Definition of THSA First Flight

For the purposes of this AD, the definition of THSA first flight is the THSA "entry into service date," which is the date of the first flight of the airplane on which the THSA was originally fitted in production. All entry into service dates are included in the table that appears after the Accomplishment Instructions in Goodrich Service Bulletin 47145-27-16, Revision 2, dated January 7, 2013. If the entry into service date is not included in this table, use the manufacturing date engraved on the THSA's identification plate as the "entry into service date."

(h) Repetitive Inspections

At the later of the times specified in paragraphs (h)(1) and (h)(2) of this AD: Do a detailed inspection of the gaps between the ballscrew shaft and tie-rod splines on any THSA having P/N 47145-XXX (where XXX stands for any numerical value) to determine if the corrosion category is Type I, Type II, or Type III, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-27-1214, including Appendix 01, dated February 23, 2012; and the Accomplishment Instructions and the flowchart following the Accomplishment Instructions of Goodrich Service Bulletin 47145-27-16, Revision 2, dated January 7, 2013. Repeat the inspection thereafter at intervals not to exceed 24 months.

(1) Within 22 years accumulated by the THSA since the THSA's first flight, but no earlier than 20 years accumulated by the THSA since its first flight.

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

(i) Ballscrew Integrity Test and Corrective Actions

If, during any inspection required by paragraph (h) of this AD, it is determined that a THSA has Type II or Type III corrosion: Before further flight, do a ballscrew integrity test, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-27-1214, including Appendix 01, dated February 23, 2012; and the Accomplishment Instructions and the flowchart following the Accomplishment Instructions of Goodrich Service Bulletin 47145-27-16, Revision 2, dated January 7, 2013. If Type I corrosion is found, no action is required by this paragraph.

(1) For THSAs having Type II or Type III corrosion and for which the results of the ballscrew integrity test are not correct, as specified in Airbus Service Bulletin A320-27-1214, including Appendix 01, dated February 23, 2012: Before further flight, replace the affected THSA with a THSA that meets the criteria specified in paragraph (l) of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-27-1214, including Appendix 01, dated February 23, 2012.

(2) For THSAs having Type III corrosion and on which the results of the ballscrew integrity test are correct, as specified in Airbus Service Bulletin A320 27-1214, including Appendix 01, dated February 23, 2012: Within 10 days after the most recent inspection, replace the THSA with a THSA that meets the criteria specified in paragraph (l) of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-27-1214, including Appendix 01, dated February 23, 2012.

(3) For THSAs having Type II corrosion and on which the results of the ballscrew integrity test are correct, as specified in Airbus Service Bulletin A320 27-1214, including Appendix 01, dated February 23, 2012: Within 24 months or 5,000 flight cycles after the most recent inspection, whichever occurs first, replace the THSA with a THSA that meets the criteria specified in paragraph (l) of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-27-1214, including Appendix 01, dated February 23, 2012.

(j) Replacement of a THSA is not Terminating Action

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

(k) Reporting Requirement

If any corrosion type is found during any inspection required by paragraph (h) of this AD, at the applicable time specified in paragraph (k)(1) or (k)(2) of this AD, report the findings to Airbus, Customer Services Engineering–SEEL5, Flight Control Systems A320 Family, 1 Rond Point Maurice

Bellonte, 31707 Blagnac Cedex, France; fax +33 5 61 93 44 25. The report must include the information specified in Appendix 01 of Airbus Service Bulletin A320-27-1214.

(1) If the inspection was done on or after the effective date of this AD: Within 90 days after that inspection.

(2) If the inspection was done before the effective date of this AD: Within 90 days after the effective date of this AD.

(l) Parts Installation Limitations

As of the effective date of this AD, no person may install a THSA having P/N 47145-XXX (where XXX stands for any numerical value) on any airplane, unless that THSA meets the applicable criteria specified in paragraph (l)(1) or (l)(2) of this AD.

(1) The THSA must not have accumulated 20 years or more since the THSA's first flight, and after installation must be inspected as required by paragraph (h) of this AD, at the later of the times specified in paragraphs (h)(1) and (h)(2) of this AD, and be inspected thereafter at intervals not to exceed 24 months as required by paragraph (h) of this AD; and any applicable actions specified in paragraph (i) of this AD must be accomplished.

(2) If the THSA has accumulated 20 years or more since the THSA's first flight, it must have been inspected before installation as required by paragraph (h) of this AD and determined to have Type I corrosion (if the screw shaft lower splines thread condition does not meet the Type II or Type III condition), and be inspected thereafter at intervals not to exceed 24 months as required by paragraph (h) of this AD; and any applicable actions specified in paragraph (i) of this AD must be accomplished.

(m) Credit for Previous Actions

This paragraph provides credit for actions required by paragraphs (h) and (i) of this AD, if those actions were performed before the effective date of this AD using Goodrich Service Bulletin 47145-27-16, dated November 7, 2011; or Revision 1, dated August 1, 2012.

(n) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone (425) 227-1405; fax (425) 227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

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

(3) Reporting Requirements: A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number

for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing, and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW., Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(o) Special Flight Permits

Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the airplane can be modified (if the operator elects to do so), provided that, if any THSA corrosion is found during any action required by paragraph (h) of this AD, that corrosion is classified as Type I or Type II, as defined in Goodrich Service Bulletin 47145-27-16, dated November 7, 2011; Revision 1, dated August 1, 2012; or Revision 2, dated January 27, 2013.

(p) Related Information

Refer to Mandatory Continuing Airworthiness Information European Aviation Safety Agency Airworthiness Directive 2012-0175, dated September 7, 2012, for related information, which can be found in the AD docket on the Internet at <http://www.regulations.gov>.

(q) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Airbus Service Bulletin A320-27-1214, including Appendix 01, dated February 23, 2012.

(ii) Goodrich Service Bulletin 47145-27-16, dated November 7, 2011.

(iii) Goodrich Service Bulletin 47145-27-16, Revision 1, dated August 1, 2012. Pages 1 through 4 of this document are identified as Revision 1, dated August 1, 2012. Pages 5 through 117 of this document are dated November 7, 2011.

(iv) Goodrich Service Bulletin 47145-27-16, Revision 2, dated January 7, 2013. Pages 1, 2, and 4 of this document are identified as Revision 1, dated August 1, 2012. Page 3 of this document is identified as Revision 2, dated January 7, 2013. Pages 5 through 117 of this document are dated November 7, 2011.

(3) For Airbus service information identified in this AD, contact Airbus, Airworthiness Office–EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com; Internet <http://www.airbus.com>. For Goodrich service information identified in this AD, contact Goodrich Corporation, Actuation Systems, Stafford Road, Fordhouses, Wolverhampton WV10 7EH, England; telephone +44 (0) 1902 624938; fax +44 (0) 1902 788100; email techpubs.wolverhampton@goodrich.com; Internet <http://www.goodrich.com/TechPubs>.

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

(5) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on August 23, 2013.
Stephen P. Boyd,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.