



**FEDERAL AVIATION ADMINISTRATION  
AIRWORTHINESS DIRECTIVES**

**LARGE AIRPLANES**

**BIWEEKLY 2012-14**

*July 2 – July 15, 2012*

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



## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
<b>Biweekly 2012-01</b>			
2011-18-21	S 2004-26-05	Rolls-Royce plc	Engine: RB211-524B-02, -524B3-02, RB211-524B2, -524B4, -524C2, -524D4, RB211-524G and -524H series
2011-27-03		Boeing	737
2011-27-05	S 2004-12-03	Saab AB, Saab Aerosystems	340A (SAAB/SF340A) and SAAB 340B
2011-27-06		Dassault Aviation	Falcon 7X
<b>Biweekly 2012-02</b>			
2011-25-05		Boeing	767-200, -300, -300F, and -400ER series
2012-01-06		Boeing	767-200 and 767-300 series
2012-01-08		328 Support Services GmbH	328-100 and 328-300
2012-01-09		Boeing	757-200, -200CB, and -300 series
2012-01-10		General Electric	Engine: CF34-10E series
<b>Biweekly 2012-03</b>			
2011-24-04	COR	Boeing	DC-10-10, DC-10-10F, and MD-10-10F
2012-01-04		EADS CASA	CN-235-100, CN-235-200, and CN-235-300
2012-02-03		CFM International S.A.	Engine: CFM56-5B1/3, CFM56-5B2/3, CFM56-5B3/3, CFM56-5B4/3, CFM56-5B5/3, CFM56-5B6/3, CFM56-5B7/3, CFM56-5B8/3, CFM56-5B9/3, CFM56-5B3/3B1, and CFM56-5B4/3B1
2012-02-04		Rolls-Royce plc	Engine: 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
2012-02-07	S 2011-02-07 S 2011-18-01	General Electric	Engine: CF6-45A, CF6-45A2, CF6-50A, CF6-50C, CF6-50CA, CF6-50C1, CF6-50C2, CF6-50C2B, CF6-50C2D, CF6-50E, CF6-50E1, CF6-50E2, and CF6-50E2B turbofan
2012-02-08		Aviation Communication & Surveillance Systems LLC	Appliance: See AD
2012-02-09		Boeing	737-100, -200, -200C, and -300 series
2012-02-11	S 2011-11-08	Rolls-Royce plc	Engine: RB211-535E4-37, -535E4-B-37, -535E4-B-75, and -535E4-C-37 turbofan
2012-02-12		Bombardier Inc	DHC-8-400, -401, and -402
2012-03-51	E	Lockheed	P2V
<b>Biweekly 2012-04</b>			
74-08-09 R3	R	Transport Category Airplanes	See AD
2009-11-02	COR	CFM International S.A.	Engine: CFM56-2, CFM56-3, CFM56-5A, CFM56-5B, CFM56-5C, and CFM56-7B series
2012-02-14		Boeing	737-600, -700, -700C, -800, -900, and -900ER series
2012-03-02		Boeing	767-200 and -300 series
2012-03-05		Bombardier, Inc.	BD-700-1A10 and BD-700-1A11
2012-03-09		Boeing	747SP series
2012-03-10		Airbus	A340-642
2012-03-51		Lockheed	P2V
2012-04-01	S 2003-16-18	Rolls-Royce plc	Engine: RB211-Trent 895-17, 892-17, 892B-17, 884-17, 884B-17, 877-17, and 875-17 turbofan
2012-04-05	S 2007-12-07	General Electric Company	Engine: CF6-80C2B1F, CF6-80C2B1F1, CF6-80C2B1F2, CF6-80C2B2F, CF6-80C2B3F, CF6-80C2B4F, CF6-80C2B5F, CF6-80C2B6F, CF6-80C2B6FA, CF6-80C2B7F, and CF6-80C2B8F turbofan
<b>Biweekly 2012-05</b>			
2012-02-15	S 2007-03-01	Boeing	757-200, -200PF, -200CB, and -300 series
2012-02-17		Boeing	757-200, -200PF, -200CB, and -300 series
2012-02-18		Dassault	MYSTERE-FALCON 50
2012-03-03		Fokker	F.27 Mark 050, F.28 Mark 0070 and 0100
2012-03-08	S 2006-14-05	Bombardier	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705), and CL-600-2D24 (Regional Jet Series 900)
2012-03-12		GE	Engine: CF6-80C2 turbofan

## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
2012-04-02		Bombardier	CL-600-2C10 (Regional Jet Series 700, 701, & 702); CL-600-2D15 (Regional Jet Series 705); and CL-600-2D24 (Regional Jet Series 900)
2012-04-04		Pratt & Whitney Division	Engine: PW4050, PW4052, PW4056, PW4060, PW4060A, PW4060C, PW4062, PW4062A, PW4152, PW4156, PW4156A, PW4158, PW4160, PW4460, PW4462, and PW4650 turbofan
2012-04-06		328 Support Services GmbH	328-100
2012-04-07		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -343; A340-211, -212, -213, -311, -312, and -313
2012-04-08		Bombardier	DHC-8-102, -103, -106, -201, -202, -301, -311, -315; DHC-8-400, -401, and -402
2012-04-09		Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SP, and 747SR series
2012-04-12		Bombardier	CL-600-2B16 (CL -604 Variant)
2012-04-13	S 2011-09-07	Rolls-Royce plc	Engine: RB211-524G2-T-19, -524G3-T-19, -524H-T-36, -524H2-T-19; RB211-Trent 553-61, 553A2-61, 556-61, 556A2-61, 556B-61 556B2-61, 560-61, 560A2-61; RB211-Trent 768-60, 772-60, 772B-60; RB211-Trent 875-17, 877-17, 884-17, 884B-17, 892-17, 892B-17, and 895-17 turbofan
2012-04-14		Rolls-Royce plc	Engine: RB211-Trent 800 turbofan
<b>Biweekly 2012-06</b>			
2012-02-01		Pratt & Whitney	Engine: PW2037, PW2037(M), and PW2040 turbofan
2012-04-11	S 97-22-13	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
2012-04-15	S 2007-05-17	Pratt & Whitney	Engine: JT9D-3A, -7, -7A, -7H, -7AH, -7F, -7J, -20J, -59A, -70A, -7Q, -7Q3, -7R4D, -7R4D1, -7R4E, -7R4E1, -7R4E4, -7R4G2, and -7R4H1 series turbofan
2012-05-03		Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series
2012-05-04		Boeing	767-200, -300, -300F, and -400ER series
2012-05-05		Bombardier	CL-215-1A10, CL-215-6B11 (CL-215T Variant), and CL-215-6B11 (CL-415 Variant)
2012-05-07		Bombardier	DHC-8-102, -103, and -106
2012-05-08		Embraer	ERJ 170-100 LR, -100 STD, -100 SE., -100 SU; ERJ 170-200 LR, -200 SU, and -200 STD
2012-06-01		Cessna	560XL
2012-06-02		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
2012-06-04		Bombardier	DHC-8-400, -401, and -402
2012-06-05		Bombardier	DHC-8-400, -401, and -402
2012-06-07	S 2010-17-02	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
2012-06-08		Airbus	A340-211, -212, -311, and -312
2012-06-14		Pratt & Whitney	Engine: JT9D-7R4G2 and -7R4H1 turbofan
2012-06-17		Rolls-Royce Deutschland Ltd	Engine: TAY 611-8 engines, and TAY 611-8C
2012-06-18		Pratt & Whitney	Engine: PW4050, PW4052, PW4056, PW4060, PW4060A, PW4060C, PW4062, PW4062A, PW4152, PW4156, PW4156A, PW4158, PW4160, PW4460, PW4462, and PW4650 turbofan

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AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
<b>Biweekly 2012-07</b>			
2012-04-11	COR S 97-22-13 S 2002-10-06	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
2012-05-02		Boeing	737-600, -700, -700C, -800, and -900 series
2012-05-06	S 95-20-04 R1	Lockheed Martin	L-1011-385-1, L-1011-385-1-14, L-1011-385-1-15, and L-1011-385-3
2012-06-03		Bombardier	BD-100-1A10 (Challenger 300)
2012-06-06		Boeing	757-200, -200PF, -200CB, and -300 series
2012-06-10	COR	Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-541 and -642
2012-06-11		Airbus	A321-131, -211, -212, and -231
2012-06-12		Airbus	A340-642
2012-06-21		Dassault Aviation	Mystere-Falcon 900
2012-06-22		Airbus	A340-541 and -642
2012-06-23	S 2011-08-07	Rolls-Royce plc	Engine: RB211-Trent 875-17, RB211-Trent 877-17, RB211-Trent 884-17, RB211-Trent 884B-17, RB211-Trent 892-17, RB211-Trent 892B-17, and RB211-Trent 895-17 turbofan
2012-06-25	S 2007-23-01	Goodrich	Appliance: See Ad
2012-07-02		Airbus	A340-541 and -642
2012-07-03	S 2009-21-06	328 Support Services GmbH	328-100 and -300
<b>Biweekly 2012-08</b>			
2012-02-16	S 2007-15-10	Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series
2012-03-04	S 2008-01-05	Airbus	A310-203, -204, -221, -222, -304, -322, -324, and -325
2012-04-14	COR	Rolls-Royce plc	RB211-Trent 800 turbofan engines
2012-06-09		Lockheed Martin Corporation	382, 382B, 382E, 382F, and 382G
2012-06-19		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, and -313
2012-06-20		Fokker Services B.V.	F.28 Mark 0070 and 0100
2012-07-04		Cessna	680
2012-07-05		Fokker Services B.V.	F.27 Mark 050
2012-07-06		Boeing	777-200, -200LR, -300, -300ER, and 777F series
2012-07-07		Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series
<b>Biweekly 2012-09</b>			
2012-06-02	COR	Airbus	A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, and C4-605R Variant F; and A310-203, -204, -221, -222, -304, -322, -324, and -325
2012-07-08	S 2010-11-13	Embraer	ERJ 170-100 LR, -100 STD, -100 SE., and -100 SU; and ERJ 170-200 LR, -200 SU, and -200 STD
2012-08-02		Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343; and A340-211, -212, -213, -311, -312, -313, -541, and -642
2012-08-03		Airbus	A300 B4-2C, B4-103, and B4-203; A300 B4-601, B4-603, B4-620, and B4-622; A300 B4-605R and B4-622R; A300 F4-605R and F4-622R; and A300 C4-605R Variant F; A310-203, -204, -221, -222, -304, -322, -324, and -325
2012-08-04		Bombardier	CL-600-2B19 (Regional Jet Series 100 & 440)
2012-08-05		Bombardier	CL-600-2C10 (Regional Jet Series 700, 701, & 702); CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900); CL-600-2E25 (Regional Jet Series 1000)
2012-08-07	S 2011-23-06	Sicma Aero Seat	Passenger seat assemblies
2012-08-08		Learjet	45
2012-08-09		Boeing	777-200, -200LR, -300, -300ER, and 777F series
2012-08-10		Bombardier	CL-600-2B16 (CL-604 Variant)
2012-08-11		Bombardier	DHC-8-400, -401, and -402

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Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
2012-08-12		Airbus	A310-203, -204, -221, -222, -304, -322, -324, and -325
2012-08-13		Boeing	777-200 and -300
2012-08-14		Boeing	767-200, -300, -300F, and -400ER series
2012-08-15		Bombardier	CL-600-2B16 (CL-604 Variant)
2012-08-16		Learjet	60
2012-08-17		Boeing	737-100, -200, -200C, -300, -400, and -500 series
2012-09-01		Cessna	560XL
2012-09-02		Airbus	A300 B2-1C, B2K-3C, B2-203, B4-2C, B4-103, and B4-203
2012-09-03		Saab	SAAB 2000
<b>Biweekly 2012-10</b>			
2012-01-05	S 2010-23-26	Airbus	A300 B2-1C, B2K-3C, B2-203, B4-2C, B4-103, B4-203, A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, and F4-605R
2012-09-04	S 2004-19-06 R1	Boeing	767-200, -300, -300F, and -400ER series
2012-09-05		Fokker Services B.V.	F.28 Mark 0100
2012-09-06		Boeing	737-700 series
2012-09-07		Airbus	A319-111, -112, -132, A320-111, -211, -212, -214, -232, A321-111, -211, -212, and -231
2012-09-08		Boeing	767-200 and -300 series
2012-09-10		Pratt & Whitney Canada	PT6A-38, -41, -42, -42A, -61, -64, -66, -66B, -110, -112, -114, -114A, -121, -135, and -135A series turboprop engines
2012-09-12	S 2005-23-02	Airbus	A319-111, -112, -113, -114, -115, -131, -132, -133, A320-211, -212, -214, -231, -232, -233, A321-111, -112, -131, -211, -212, -213, -231, and -232
2012-09-13		Airbus	A330-223F, -243F, -201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, and -313
2012-09-14		Boeing	777-200, -200LR, -300, -300ER, and 777F series
<b>Biweekly 2012-11</b>			
2012-09-09	S 2010-20-07	International Aero Engines AG	V2500-A1, V2525-D5, V2528-D5, V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, and V2533-A5 turbofan engines
2012-10-03	S 90-21-17	The Boeing Company	747-100, 747-100B, 747-200B, 747-200C, 747-200F, 747-300, 747SR, and 747SP series
2012-10-05		Fokker Services B.V.	F.28 Mark 0070 and 0100
2012-10-06		Saab AB, Saab Aerosystems	SAAB 2000
2012-10-07		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), CL-600-2E25 (Regional Jet Series 1000)
2012-10-08	S 2011-08-04	Bombardier, Inc	CL-600-2C10 (Regional Jet Series 700, 701 & 702), CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900)
2012-10-10		The Boeing Company	Model 777-200, -200LR, -300, -300ER, and 777F series
2012-10-12	S 2008-18-08	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, and 895-17 turbofan engines
2012-11-01		Rolls-Royce plc	RB211-Trent 875-17, 877-17, 884-17, 884B-17, 892-17, 892B-17, and 895-17 turbofan engines
2012-11-06		Gulfstream Aerospace Corporation	G-1159, G-1159A, and G-1159B
2012-11-07		Honeywell International Inc	ALF502L-2C; ALF502R-3; ALF502R-3A; ALF502R-5; LF507-1F; and LF507-1H turbofan engines
<b>Biweekly 2012-12</b>			
2012-11-03		Boeing	777-200, -200LR, -300, -300ER, and 777F series
2012-11-04	S 2005-18-05	Bombardier Inc	CL-215-1A10 (Water Bomber), CL-215-6B11 (CL-215T Variant)
2012-11-11	S 2009-04-12	Boeing	767-200, -300, and -400ER series

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AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
<b>Biweekly 2012-13</b>			
2012-11-09	S 2011-04-09	Transport category airplanes	See AD
2012-11-15		BAE	4101
2012-12-01	S 2009-02-04	Airbus	A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, and C4-605R Variant F, and A310-203, -204, -221, -222, -304, -322, -324, and -325
2012-12-02		Bombardier	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900)
2012-12-04	S 2008-19-03	Boeing	737-300, -400, and -500 series
2012-12-05	S 2004-09-09 S 2009-16-14	Boeing	737-100, -200, -200C, -300, -400, and -500 series
2012-12-06		Fokker	F.28 Mark 0070 and 0100
2012-12-07		Fokker	F.28 Mark 0070 and 0100
2012-12-08		Boeing	777-200 and -300 series
2012-12-09		Boeing	717-200
2012-12-12		Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes; and A340-211, -212, -213, -311, -312, and -313 airplanes
2012-12-13		BAE	BAe 146-100A, -200A, and -300A; and Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2012-12-14		Boeing	767-200 and -300 series
2012-12-16		Bombardier	DHC-8-400, -401, and -402
2012-12-17		Bombardier	BD-100-1A10 (Challenger 300)
2012-12-18	S 2010-18-03	Dassault	FALCON 7X
2012-12-19		Boeing	777-200, -200LR, and -300ER series
2012-12-22		BAE	BAe 146-100A, -200A, and -300A; and Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2012-13-01		Saab	340A (SAAB/SF340A) and SAAB 340B
2012-13-03		Bombardier	CL-600-2B19 (Regional Jet Series 100 & 440)
2012-13-51		Gulfstream Aerospace LP	G150
<b>Biweekly 2012-14</b>			
2009-07-01	R1	Rolls-Royce Deutschland Ltd & Co KG	BR700-715A1-30, BR700-715B1-30, and BR700-715C1-30 turbofan engines
2012-11-14		Pratt & Whitney Canada	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
2012-12-03	S 2010-16-07	Rolls-Royce plc	RB211-Trent 970-84, 970B-84, 972-84, 972B-84, 977-84, 977B-84, and 980-84 turbofan engines
2012-13-05		Boeing	777-200, -200LR, -300, -300ER, and 777F series
2012-13-06		Airbus	A300 B2-1A, B2-1C, B2K-3C, B2-203, B4-2C, B4-103, and B4-203, A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, and F4-622, A300 C4-605R Variant F
2012-13-07		Boeing	737-100, -200, -200C, -300, -400, and -500 series
2012-13-08	S 2006-01-07	Boeing	747-100, 747-100B, 747-200B, 747-200C, 747-200F, 747-400F, 747SR, and 747SP series
2012-13-09		Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series



**FAA**  
**Aviation Safety**

## **AIRWORTHINESS DIRECTIVE**

[www.faa.gov/aircraft/safety/alerts/](http://www.faa.gov/aircraft/safety/alerts/)  
[www.gpoaccess.gov/fr/advanced.html](http://www.gpoaccess.gov/fr/advanced.html)

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**2009-07-01 R1 Rolls-Royce Deutschland Ltd & Co KG (formerly BMW Rolls-Royce GmbH, formerly BMW Rolls-Royce Aero Engines):** Amendment 39-17085; Docket No. FAA-2008-0224; Directorate Identifier 2007-NE-44-AD.

**(a) Effective Date**

This AD is effective August 6, 2012.

**(b) Affected ADs**

This AD rescinds AD 2009-07-01 (74 FR 12086, March 23, 2009).

**(c) Applicability**

This AD applies to Rolls-Royce Deutschland Ltd & Co KG BR700-715A1-30, BR700-715B1-30, and BR700-715C1-30 turbofan engines.

**(d) Related Information**

For more information about this AD, contact Mark Riley, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7758; fax: 781-238-7199; email: [mark.riley@faa.gov](mailto:mark.riley@faa.gov).

**(e) Material Incorporated by Reference**

None.

Issued in Burlington, Massachusetts, on June 7, 2012.  
Peter A. White,  
Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.



**2012-11-14 Pratt & Whitney Canada:** Amendment 39-17078; Docket No. FAA-2012-0416; Directorate Identifier 2012-NE-13-AD.

**(a) Effective Date**

This airworthiness directive (AD) becomes effective July 20, 2012.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all Pratt & Whitney Canada (P&WC) 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, with the serial number (S/N) propeller shafts listed in P&WC Alert Service Bulletin (ASB) No. PW100-72-A21813, Revision 3, dated March 21, 2012, and ASB No. PW100-72-A21802, Revision 4, dated March 16, 2012.

**(d) Reason**

This AD was prompted by reports of two propeller shafts found cracked at time of inspection during maintenance. We are issuing this AD to detect propeller shaft cracks, which could cause failure of the shaft, propeller release, and loss of control of the airplane.

**(e) Actions and Compliance**

Unless already done, do the following actions.

**(f) Inspecting and Removing Propeller Shafts**

(1) Within 30 days after the effective date of this AD, remove from service propeller shafts with an S/N listed in Table 1 of P&WC ASB No. PW100-72-A21802, Revision 4, dated March 16, 2012.

(2) For propeller shafts with a S/N listed in Table 1 or Table 2 of P&WC ASB No. PW100-72-A21813, Revision 3, dated March 21, 2012:

(i) Within 200 engine flight hours (EFH) or 40 days, whichever occurs first after the effective date of this AD, perform either an initial visual inspection or an initial ultrasonic inspection (UI) for cracks, in accordance with paragraphs 3.C.(1) through 3.C.(1)(a), and 3.C.(2) of P&WC ASB No. PW100-72-A21813, Revision 3, dated March 21, 2012, and Section 9 of P&WC Special Instruction (SI) P&WC 22-2012R2, dated April 4, 2012.

(ii) If the visual inspection was performed, repeat the visual inspection within 50 EFH after the initial inspection, and thereafter every 10 EFH, until the propeller shaft is removed from service.

(iii) If the UI was performed, repeat the UI at intervals not to exceed 1,000 EFH, until the propeller shaft is removed from service.

(3) If a crack is found during any of the inspections required by this AD, remove the propeller shaft from service before the next flight.

**(g) Installation Prohibition**

After the effective date of this AD, do not install any propeller shaft S/Ns listed in Table 1 of P&WC ASB No. PW100-72-A21802, Revision 4, dated March 16, 2012, into any engine.

**(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) Special Flight Permit**

No special flight permits will be issued for this AD.

**(j) Related Information**

(1) For more information about this AD, contact James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; email: james.lawrence@faa.gov; phone 781-238-7176; fax 781-238-7199.

(2) Refer to Transport Canada AD CF-2012-12, dated March 26, 2012, for related information.

**(k) Material Incorporated by Reference**

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

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

(i) Pratt & Whitney Canada Alert Service Bulletin No. PW100-72-A21813, Revision 3, dated March 21, 2012.

(ii) Pratt & Whitney Canada Alert Service Bulletin No. PW100-72-A21802, Revision 4, dated March 16, 2012.

(iii) Pratt & Whitney Canada Special Instruction P&WC 22-2012R2, dated April 4, 2012.

(3) For service information identified in this AD, contact Pratt & Whitney Canada Corp., 1000 Marie-Victorin, Longueuil, Quebec, Canada, J4G 1A1; phone 800-268-8000; fax 450-647-2888; Web site: www.pwc.ca.

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

(5) You may also review copies of the service information incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Burlington, Massachusetts, on May 31, 2012.

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



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**2012-12-03 Rolls-Royce plc:** Amendment 39-17082; Docket No. FAA-2010-0748; Directorate Identifier 2010-NE-13-AD.

**(a) Effective Date**

This AD is effective July 17, 2012.

**(b) Affected ADs**

This AD supersedes AD 2010-16-07, Amendment 39-16384 (75 FR 49368, August 13, 2010).

**(c) Applicability**

This AD applies to Rolls-Royce plc (RR) models RB211-Trent 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 RR identifying wear beyond engine manual limits on the abutment faces of the splines on the Trent 900 intermediate pressure (IP) shaft rigid coupling on several engines during engine disassembly. RR also determined that engines that are moved from one position to another on the same airplane or to a different airplane, may exhibit a change in the rate of IP shaft rigid coupling spline wear. RR also determined that an additional IP shaft rigid coupling configuration requires inspection. We are issuing this AD to detect wear on the abutment faces of the splines, which could result in loss of disc integrity, an uncontained failure of the engine, and damage to the airplane.

**(e) Compliance**

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

**(f) Engines That Have Not Incorporated RR RB211 Trent 900 Series Propulsion Systems Service Bulletin (SB) No. RB.211-72-G585, Original Issue, or Any Revision**

**(1) On-Wing Borescope Inspections**

(i) Initially borescope-inspect the IP shaft rigid coupling splines. Use paragraphs 3.A.(2)(a) through 3.A.(2)(k) of RR RB211 Trent 900 Series Propulsion Systems Alert Non-Modification Service Bulletin (NMSB) No. RB.211-72-AG329, Revision 4, dated March 23, 2012, to do the inspection. Inspect per the following:

(A) If the IP shaft rigid coupling has 250 or fewer flight cycles-since-new (FCSN) on the effective date of this AD, inspect before accumulating 400 FCSN; or

(B) If the IP shaft rigid coupling has more than 250 FCSN on the effective date of this AD, inspect within 150 additional flight cycles.

(ii) Repetitively borescope-inspect the IP shaft rigid coupling splines. Use paragraphs 3.A.(2)(a) through 3.A.(2)(l) of RR RB211 Trent 900 Series Propulsion Systems Alert NMSB No. RB.211-72-AG329, Revision 4, dated March 23, 2012, to determine the re-inspection interval and to do the inspections.

(iii) If during the initial or any repetitive inspection, the average spline crest length measured dimension is less than 0.5 millimeters (mm), remove the engine from service before further flight.

## **(2) In-Shop Inspections**

(i) At every shop visit after the effective date of this AD, where the IP shaft rigid coupling is exposed, visually inspect and magnetic particle inspect (MPI) the IP shaft rigid coupling splines.

(ii) At every shop visit after the effective date of this AD, where the IP shaft rigid coupling is not exposed:

(A) Inspect the IP shaft as specified in paragraph (f)(1) of this AD and determine the next inspection interval using Figure 10 of RR RB211 Trent 900 Series Propulsion Systems Alert NMSB No. RB.211-72-AG329, Revision 4, dated March 23, 2012; and

(B) Reject any IP shaft with an average spline crest length measured dimension less than 1.0 mm.

## **(3) After Any Shop Inspection**

After any shop inspection, where the IP shaft rigid coupling is exposed, perform a borescope inspection per paragraph (f)(1) of this AD within 400 cycles after the in-shop visual inspection and MPI.

## **(4) Engine Installation**

(i) Before installing an engine in a new position on the same airplane, or before installing an engine on a different airplane in any position:

(A) Inspect the IP shaft rigid coupling splines as specified in paragraphs (f)(1) or (f)(2) of this AD as applicable and determine the next inspection interval using Figure 10 of RR RB211 Trent 900 Series Propulsion Systems Alert NMSB No. RB.211-72-AG329, Revision 4, dated March 23, 2012; and

(B) Do not install an engine that has an IP shaft with an average spline crest length measured dimension of less than 0.5 mm.

(ii) Before installing an engine in the same position on the airplane it was removed from:

(A) Inspect the IP shaft rigid coupling splines using paragraph (f)(1) or (f)(2) of this AD as applicable and determine the next inspection interval; and

(B) Do not install an engine that has an IP shaft with an average spline crest length measured dimension of less than 0.5 mm.

## **(g) Engines That Have Incorporated RR RB211 Trent 900 Series Propulsion Systems SB No. RB.211-72-G585, Original Issue, or Any Revision**

### **(1) On-Wing Borescope Inspections**

(i) Initially borescope-inspect the IP shaft rigid coupling splines before accumulating 400 FCSN or 400 cycles since the last inspection per paragraph (g)(2)(i) of this AD. Use paragraph 3.A.(2) of RR RB211 Trent 900 Series Propulsion Systems Alert NMSB No. RB.211-72-AG871, dated March 23, 2012, to do the inspection.

(ii) Repetitively borescope-inspect the IP shaft rigid coupling splines. Use paragraphs 3.A.(2)(e), 3.A.(2)(f), and 3.A.(3) of RR RB211 Trent 900 Series Propulsion Systems Alert NMSB No. RB.211-72-AG871, dated March 23, 2012, to determine the re-inspection interval and to do the inspections.

## **(2) In-Shop Inspections**

(i) At every shop visit after the effective date of this AD, where the IP shaft rigid coupling is exposed, visually inspect and MPI the IP shaft rigid coupling splines.

(ii) At every shop visit after the effective date of this AD, where the IP shaft rigid coupling is not exposed, borescope-inspect using paragraphs 3.A.(2)(a) through 3.A.(2)(f) of RR RB211 Trent 900 Series Propulsion Systems Alert NMSB No. RB.211-72-AG871, dated March 23, 2012.

(A) If at the time of initial inspection, the average value of length "B" is equal to, or less than, 6.00 mm, repeat the borescope inspection using paragraph (g)(1) or (g)(2) of this AD within 400 flight cycles.

(B) If at the time of initial inspection the average value of length "B" is greater than 6.00 mm, MPI the IP turbine shaft, and visually inspect and MPI the intermediate turbine shaft and IP rigid coupling.

## **(3) After Any Shop Inspection**

After any shop inspection, where the rigid shaft coupling is exposed, perform a borescope inspection per paragraph (g)(1) of this AD within 400 cycles after the in-shop visual inspection and MPI.

## **(h) Definition**

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

## **(i) Credit for Previous Actions for Engines That Have Not Incorporated RR RB211 Trent 900 Series Propulsion Systems SB No. RB.211-72-G585**

If you performed inspections and corrective actions that are required by paragraph (f) of this AD using RR RB211 Trent 900 Series Propulsion Systems Alert NMSB No. RB.211-72-AG329, Original Issue, dated November 26, 2009; Revision 1, dated January 13, 2010; Revision 2, dated July 7, 2010; or Revision 3, dated November 25, 2010, before the effective date of this AD, you have met the requirements of paragraph (f) of this AD.

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

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

## **(k) Related Information**

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

(2) Refer to European Aviation Safety Agency AD 2012-0057, dated April 3, 2012, and AD 2012-0057 (corrected), dated April 20, 2012, for related information.

(3) RB211-Trent 900 Engine Manual, tasks 72-33-21-200-804 and 72-00-00-200-808, pertain to the visual inspections and MPIs required by this AD.

**(I) Material Incorporated by Reference**

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

(i) Rolls-Royce plc RB211 Trent 900 Series Propulsion Systems Alert Non-Modification Service Bulletin No. RB.211-72-AG329, Revision 4, dated March 23, 2012.

(ii) Rolls-Royce plc RB211 Trent 900 Series Propulsion Systems Alert Non-Modification Service Bulletin No. RB.211-72-AG871, dated March 23, 2012.

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

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

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

Issued in Burlington, Massachusetts, on June 5, 2012.

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



**2012-13-05 The Boeing Company:** Amendment 39-17107; Docket No. FAA-2012-0104; Directorate Identifier 2011-NM-279-AD.

**(a) Effective Date**

This AD is effective August 16, 2012.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to The Boeing Company Model 777-200, -200LR, -300, -300ER, and 777F series airplanes; certificated in any category; as identified in Boeing Alert Service Bulletin 777-35A0027, Revision 1, dated April 19, 2012.

**(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 35, Oxygen.

**(e) Unsafe Condition**

This AD was prompted by a report indicating that a fire originated near the first officer's area, which caused extensive damage to the flight deck. We are issuing this AD to prevent electrical current from passing through the low-pressure oxygen hose internal anti-collapse spring, which can cause the low-pressure oxygen hose to melt or burn, and a consequent oxygen-fed fire in the flight compartment.

**(f) Compliance**

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

**(g) Replacement**

Within 18 months after the effective date of this AD: Replace the low-pressure oxygen hoses with non-conductive low-pressure oxygen hoses in the flight compartment, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 777-35A0027, dated December 15, 2011, or Boeing Alert Service Bulletin 777-35A0027, Revision 1, dated April 19, 2012.

### **(h) Parts Installation Prohibition**

As of the effective date of this AD, no person may install in the airplane flight compartment oxygen system on any airplane, a low-pressure oxygen hose having part number 57034-81220, 57034-81320, or 57034-91100.

### **(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 Susan Monroe, Aerospace Engineer, Cabin Safety and Environmental Systems Branch, ANM-150S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: (425) 917-6457; fax: (425) 917-6590; email: susan.l.monroe@faa.gov.

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

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

(i) Boeing Alert Service Bulletin 777-35A0027, dated December 15, 2011.

(ii) Boeing Alert Service Bulletin 777-35A0027, Revision 1, dated April 19, 2012.

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

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

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

Issued in Renton, Washington, on June 21, 2012.

John Piccola,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2012-13-06 Airbus:** Amendment 39-17108. Docket No. FAA-2012-0040; Directorate Identifier 2011-NM-121-AD.

**(a) Effective Date**

This airworthiness directive (AD) becomes effective August 14, 2012.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to airplanes specified in paragraphs (c)(1), (c)(2) and (c)(3) of this AD; certificated in any category; all certificated models; all serial numbers.

(1) Airbus Model A300 B2-1A, B2-1C, B2K-3C, B2-203, B4-2C, B4-103, and B4-203 airplanes.

(2) Airbus Model A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, and F4-622 airplanes.

(3) Airbus Model A300 C4-605R Variant F airplanes.

**(d) Subject**

Air Transport Association (ATA) of America Code 24: Electrical Power.

**(e) Reason**

This AD was prompted by reports of an inoperative fire shut-off valve (FSOV) as a result of damage due to over-length of the bonding lead. We are issuing this AD to detect and correct contact or chafing of wires and bonding leads which, if not detected, could be a source of sparks in the wing trailing edge, and could lead to an uncontrolled engine fire.

**(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) Inspection of the FSOV Bonding Leads**

Within 4,500 flight hours or 30 months after the effective date of this AD, whichever occurs first: Do a one-time detailed inspection for length of the FSOV bonding leads, and for contact or chafing of the wires located on left hand (LH) side and right-hand (RH) side of the wing rear spar, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A300-24-0106, dated July 9, 2010 (for Model A300 series airplanes); or Airbus Mandatory Service Bulletin A300-24-6108, dated July 9, 2010 (for Model A300-600 series airplanes).

**(h) Corrective Action for FSOV Bonding Leads**

If, during the inspection required by paragraph (g) of this AD, the length of the bonding lead(s) is more than 80 mm (3.15 inches), before further flight, replace the bonding lead(s) with a new bonding lead having a length equal to 80 mm (3.15 inches), in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A300-24-0106, dated July 9, 2010 (for Model A300 series airplanes); or Airbus Mandatory Service Bulletin A300-24-6108, dated July 9, 2010 (for Model A300-600 series airplanes).

**(i) Repair of the Wires of the LH and RH Sides**

If, during the inspection required by paragraph (g) of this AD, contact(s) or chafing(s) of the wires is found, repair the wires, before further flight, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A300-24-0106, dated July 9, 2010 (for Model A300 series airplanes); or Airbus Mandatory Service Bulletin A300-24-6108, dated July 9, 2010 (for Model A300-600 series airplanes).

**(j) Parts Installation Prohibition**

As of the effective date of this AD, no person may install any bonding lead longer than 80 mm (3.15 inches), located between LH/RH engine hydraulic FSOV and wing rear spar in the zones 575/675 on any airplane.

**(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, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone 425-227-2125; fax 425-227-1149.

(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 MCAI European Aviation Safety Agency (EASA) Airworthiness Directive 2011-0084, dated May 24, 2011, and the service information identified in paragraphs (l)(1) and (l)(2) of this AD, for related information.

(1) Airbus Mandatory Service Bulletin A300-24-0106, dated July 9, 2010.

(2) Airbus Mandatory Service Bulletin A300-24-6108, dated July 9, 2010.

**(m) Material Incorporated by Reference**

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

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

(i) Airbus Mandatory Service Bulletin A300-24-0106, excluding Appendix 01, and including Appendix 2, dated July 9, 2010.

(ii) Airbus Mandatory Service Bulletin A300-24-6108, excluding Appendix 01 and including Appendix 2, dated July 9, 2010.

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

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

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

Issued in Renton, Washington, on June 21, 2012.

John P. Piccola,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2012-13-07 The Boeing Company:** Amendment 39-17109; Docket No. FAA-2012-0673; Directorate Identifier 2012-NM-091-AD.

**(a) Effective Date**

This AD is effective July 17, 2012.

**(b) Affected ADs**

This AD affects AD 2011-04-10, Amendment 39-16609 (76 FR 9498, February 18, 2011).

**(c) Applicability**

This AD applies to all The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes, certificated in any category.

**(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 57, Wings.

**(e) Unsafe Condition**

This AD was prompted by reports of corrosion found on carriage spindles that are located on the outboard flaps. We are issuing this AD to detect and correct corrosion of the carriage spindle, which could result in a fracture; fracture of both the inboard and outboard carriage spindles, at the forward ends through the large diameters, on a single flap, could adversely affect the continued safe flight and landing of the airplane.

**(f) Compliance**

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

**(g) Inspection To Determine Suspect Carriage Spindle**

Within 90 days after the effective date of this AD, do an inspection of the part or a records review to determine whether a suspect carriage with a high velocity oxygenated fuel (HVOF) thermal coating is installed at wing butt line (WBL) 254 or WBL 355, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1319, dated April 16, 2012, as revised by Boeing Alert Service Bulletin 737-57A1319, Revision 1, dated June 6, 2012. If no suspect carriage is installed, no further action is required by this paragraph.

**(h) Repetitive Inspections, Related Investigative Actions, and Corrective Action**

(1) For airplanes on which any suspect carriage is installed, or if the part number of the carriage cannot be determined: Within 90 days after the effective date of this AD, or within 180 days after installation of a suspect carriage, whichever occurs later, do a detailed or borescope inspection of the forward end of the carriage spindle for corrosion and flaking and missing thermal coating, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1319, dated April 16, 2012, as revised by Boeing Alert Service Bulletin 737-57A1319, Revision 1, dated June 6, 2012. Do all applicable related investigative and corrective actions before further flight. Repeat the detailed or borescope inspection thereafter at intervals not to exceed 180 days.

(2) For the purposes of this AD, a "serviceable part" can be either a suspect part (i.e., a carriage with HVOF thermal coating) or a non-suspect part (i.e., a carriage that does not have HVOF thermal coating).

**(i) Optional Terminating Action**

Replacement of a suspect carriage with a new or serviceable carriage without HVOF thermal coating, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1319, dated April 16, 2012, as revised by Boeing Alert Service Bulletin 737-57A1319, Revision 1, dated June 6, 2012, terminates the requirements of paragraph (h) of this AD for that carriage spindle only.

**(j) Parts Installation**

As of the effective date of this AD, a serviceable HVOF-coated carriage may not be installed on an airplane unless the actions required by paragraph (h)(1) of this AD are done on that carriage prior to installation.

**(k) Credit for Previous Actions**

This paragraph provides credit for the inspections required by paragraphs (g) and (h) of this AD, and the replacement specified in paragraph (i) of this AD, if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin 737-57A1319, dated April 16, 2012.

**(l) 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) The inspection required by paragraph (h) of this AD may be used as an AMOC for the initial and repetitive detailed or borescope inspections required by paragraphs (h) and (i) of AD 2011-04-10, Amendment 39-16609 (76 FR 9498, February 18, 2011), provided the inspections are accomplished at the compliance times required by that AD.

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

For more information about this AD, contact Nancy Marsh, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: (425) 917-6440; fax: (425) 917-6590; email: Nancy.Marsh@faa.gov.

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

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

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

(i) Boeing Alert Service Bulletin 737-57A1319, dated April 16, 2012.

(ii) Boeing Alert Service Bulletin 737-57A1319, Revision 1, dated June 6, 2012.

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

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

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

Issued in Renton, Washington, on June 21, 2012.

John P. Piccola,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2012-13-08 The Boeing Company:** Amendment 39-17110; Docket No. FAA-2011-0991; Directorate Identifier 2010-NM-134-AD.

**(a) Effective Date**

This airworthiness directive (AD) is effective August 14, 2012.

**(b) Affected ADs**

This AD supersedes AD 2006-01-07, Amendment 39-14446 (71 FR 1947, January 12, 2006).

**(c) Applicability**

This AD applies to The Boeing Company Model 747-100, 747-100B, 747-200B, 747-200C, 747-200F, 747-400F, 747SR, and 747SP series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 747-53A2502, Revision 1, dated June 17, 2010.

**(d) Subject**

Air Transport Association (ATA) of America Code 53: Fuselage.

**(e) Unsafe Condition**

This AD was prompted by reports that certain airplanes have tension ties that are susceptible to widespread fatigue damage. This AD also results from reports of cracks on the forward and aft tension tie channels at station (STA) 740 and STA 760, and a determination that initial inspection compliance times need to be reduced. We are issuing this AD to prevent tension ties from becoming severed or disconnected from the frames, which could lead to rapid in-flight decompression.

**(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) Retained Actions With Reduced Compliance Times for Certain Airplanes**

This paragraph restates the requirements of paragraph (f) of AD 2006-01-07, Amendment 39-14446 (71 FR 1947, January 12, 2006), with reduced compliance time for certain airplanes and revised service information. For Group 1, and Groups 3 through 6 airplanes identified in Boeing Special Attention Service Bulletin 747-53-2502, dated April 21, 2005, at the applicable time in paragraph (g)(1) or (g)(2) of this AD: Do detailed and high-frequency eddy current inspections for cracking of each affected tension tie and of the surrounding structure. If any cracking is found: Before further flight, do all applicable corrective and related investigative actions. Do all actions in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2502, dated April 21, 2005; or Boeing Alert Service Bulletin 747-53A2502, Revision 1, dated

June 17, 2010. Where Boeing Special Attention Service Bulletin 747-53-2502, dated April 21, 2005; or Boeing Alert Service Bulletin 747-53A2502, Revision 1, dated June 17, 2010; specifies to contact Boeing for repair instructions: Before further flight, repair the area using a method approved in accordance with the procedures specified in paragraph (n) of this AD. As of the effective date of this AD, only Boeing Alert Service Bulletin 747-53A2502, Revision 1, dated June 17, 2010, may be used to accomplish the actions required in this paragraph.

(1) For airplanes identified in Boeing Special Attention Service Bulletin 747-53-2502, dated April 21, 2005, as Groups 1, 3, and 6 airplanes: Do the first inspections before the accumulation of 20,000 total flight cycles, or within 1,000 flight cycles after February 16, 2006 (the effective date of AD 2006-01-07, Amendment 39-14446 (71 FR 1947, January 12, 2006)), whichever occurs later; and repeat the inspections thereafter at intervals not to exceed 4,000 flight cycles until the modification required by paragraph (j) of this AD is accomplished.

(2) For airplanes identified in Boeing Special Attention Service Bulletin 747-53-2502, dated April 21, 2005, as Group 4 and 5 airplanes: Do the first inspections before the accumulation of 17,000 total flight cycles, or within 1,000 flight cycles after February 16, 2006 (the effective date of AD 2006-01-07, Amendment 39-14446 (71 FR 1947, January 12, 2006)), whichever occurs later; and repeat the inspections thereafter at intervals not to exceed 3,000 flight cycles until the modification required by paragraph (j) of this AD is accomplished.

#### **(h) Retained Inspection for Group 2 Airplanes With Reduced Compliance Times and Revised Service Information**

This paragraph restates the requirements of paragraph (f) of AD 2006-01-07, Amendment 39-14446 (71 FR 1947, January 12, 2006), with reduced compliance time for certain airplanes and revised service information. For Group 2 airplanes identified in Boeing Alert Service Bulletin 747-53A2502, Revision 1, dated June 17, 2010: At the applicable times specified in paragraphs (h)(1) and (h)(2) of this AD, do detailed and high-frequency eddy current inspections for cracking of each affected tension tie and of the surrounding structure, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2502, dated April 21, 2005; or Boeing Alert Service Bulletin 747-53A2502, Revision 1, dated June 17, 2010. If any cracking is found: Before further flight, do all applicable corrective and related investigative actions. Do all actions in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-53-2502, dated April 21, 2005; or Boeing Alert Service Bulletin 747-53A2502, Revision 1, dated June 17, 2010. Where Boeing Special Attention Service Bulletin 747-53-2502, dated April 21, 2005; or Boeing Alert Service Bulletin 747-53A2502, Revision 1, dated June 17, 2010; specify to contact Boeing for repair instructions: Before further flight, repair the area using a method approved in accordance with the procedures specified in paragraph (n) of this AD. As of the effective date of this AD, only Boeing Alert Service Bulletin 747-53A2502, Revision 1, dated June 17, 2010, may be used to accomplish the actions required by this paragraph. Repeat the inspections thereafter at intervals not to exceed 3,000 flight cycles until the modification required by paragraph (j) of this AD is accomplished.

(1) For STA 780 through 940: Before the accumulation of 17,000 total flight cycles, or within 1,000 flight cycles after February 16, 2006 (the effective date of AD 2006-01-07, Amendment 39-14446 (71 FR 1947, January 12, 2006)), whichever occurs later.

(2) For STA 720, 740, and 760: At the earlier of the times specified in paragraph (h)(2)(i) or (h)(2)(ii) of this AD.

(i) Before the accumulation of 17,000 total flight cycles, or within 1,000 flight cycles after February 16, 2006 (the effective date of AD 2006-01-07, Amendment 39-14446 (71 FR 1947, January 12, 2006)), whichever occurs later.

(ii) Before the accumulation of 8,000 total flight cycles, or within 1,000 flight cycles after the effective date of this AD, whichever occurs later.

**(i) New Requirement: One-Time Inspection for Group 2 Airplanes**

For airplanes identified in Boeing Alert Service Bulletin 747-53A2502, Revision 1, dated June 17, 2010, as Group 2 airplanes: Before the accumulation of 8,000 total flight cycles, or within 1,000 flight cycles after the effective date of this AD, whichever occurs later, do a general visual inspection for correct configuration, as identified in Boeing Alert Service Bulletin 747-53A2502, Revision 1, dated June 17, 2010, of each affected tension tie and of the surrounding structure, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2502, Revision 1, dated June 17, 2010.

(1) If all tension ties match the correct configurations specified in the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2502, Revision 1, dated June 17, 2010, no further work is required by this paragraph.

(2) If any incorrect configuration is found, before further flight, do detailed and open fastener-hole high frequency eddy current inspections for cracks in the tension tie and frame, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2502, Revision 1, dated June 17, 2010.

(i) If no crack is found during the inspection required by paragraph (i)(2) of this AD: Before further flight, install the correct configuration for the tension ties at locations where the incorrect configuration was found, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2502, Revision 1, dated June 17, 2010, except where Boeing Alert Service Bulletin 747-53A2502, Revision 1, dated June 17, 2010, specifies to contact Boeing for installation instructions, use a method approved in accordance with the procedures specified in paragraph (n) of this AD.

(ii) If any crack is found during the inspection required by paragraph (i)(2) of this AD, before further flight, do the actions specified in paragraphs (i)(2)(ii)(A) and (i)(2)(ii)(B) of this AD.

(A) Repair the crack in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2502, Revision 1, dated June 17, 2010, except where Boeing Alert Service Bulletin 747-53A2502, Revision 1, dated June 17, 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 (n) of this AD.

(B) Install the correct configuration for the tension ties at locations where the incorrect configuration was found, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2502, Revision 1, dated June 17, 2010, except where Boeing Alert Service Bulletin 747-53A2502, Revision 1, dated June 17, 2010, specifies to contact Boeing for installation instructions: Use a method approved in accordance with the procedures specified in paragraph (n) of this AD.

**(j) Modification**

Before the accumulation of 30,000 total flight cycles, or within 3,000 flight cycles after the effective date of this AD, whichever occurs later: Modify the left- and right-side tension tie structure or left- and right-side tension tie and frame structure, at specified stations, in accordance with the applicable method specified in paragraph (j)(1) or (j)(2) of this AD. Accomplishment of the modification in this paragraph terminates the repetitive inspection requirements in paragraphs (g)(1), (g)(2), and (h) of this AD.

(1) For airplanes identified in Boeing Alert Service Bulletin 747-53A2605, Revision 1, dated May 27, 2010: Do the modification in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2605, Revision 1, dated May 27, 2010.

(2) For airplanes not identified in Boeing Alert Service Bulletin 747-53A2605, Revision 1, dated May 27, 2010: Do the modification using a method approved in accordance with the procedures specified in paragraph (n) of this AD.

Note 1 to paragraph (j)(2) of this AD: For airplanes identified in paragraph (j)(2) of this AD, post-modification inspection guidance may be included in an approved alternative method of compliance (AMOC) for paragraph (j)(2) of this AD.

**(k) Post-Modification Inspection of the Modified Areas**

For airplanes identified in paragraph (j)(1) of this AD, within 20,000 flight cycles after doing the modification required by paragraph (j) of this AD: Do an inspection for cracks of the modified areas of the left- and right-side tension tie structure and frame structure, in accordance with a method approved in accordance with the procedures specified in paragraph (n) of this AD. If any crack is found during any inspection required by this paragraph, before further flight, repair the crack using a method approved in accordance with the procedures specified in paragraph (n) of this AD.

**(l) Post-Modification Repetitive Inspections of the Unmodified Areas**

(1) For airplanes identified in paragraph (j)(1) of this AD, within 6,000 flight cycles after doing the modification required by paragraph (j) of this AD: Do a detailed inspection for cracks on the unmodified areas of the left- and right-side tension tie structure and frame structure, at certain stations, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2605, Revision 1, dated May 27, 2010. If any crack is found during any inspection required by this paragraph, before further flight, repair the crack using a method approved in accordance with the procedures specified in paragraph (n) of this AD. Repeat the inspection of the unmodified areas thereafter at intervals not to exceed 6,000 flight cycles.

(2) Boeing Alert Service Bulletin 747-53A2605, Revision 1, dated May 27, 2010, refers to Section 51-10-02 of the Boeing 747-400F Structural Repair Manual (SRM) and Section 51-10-01 of the Boeing 747-100/200/300 SRM as additional sources of guidance for removing small cracks and fatigue damage material from the existing holes in the unmodified center section of the tension tie channels. Where those SRM sections state that "zero-timing must only be used where specifically permitted in an SRM chapter-section-repair," this AD allows the zero-timing procedures specified in those SRM sections.

**(m) Credit for Previous Actions**

This paragraph provides credit for the actions required by paragraphs (j), (k), and (l)(1) of this AD, if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin 747-53A2605, dated October 8, 2009.

**(n) 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) Certain actions required by paragraphs (g) and (h) of this AD are approved as AMOCs for the requirements specified in paragraphs (n)(4)(i), (n)(4)(ii), and (n)(4)(iii) of this AD. All provisions of the referenced ADs specified in paragraphs (n)(4)(i), (n)(4)(ii), and (n)(4)(iii) of this AD, including applicable post-modification inspection thresholds, remain fully applicable and must be complied with.

(i) Repairs or modifications of the aft tension tie channels done in accordance with this AD are AMOCs for the repair requirements of paragraph A. of AD 84-19-01, Amendment 39-4913 (49 FR 35365, September 17, 1984); and paragraphs (a)(2) and (b)(2) of AD 94-13-06, Amendment 39-8946 (59 FR 32879, June 27, 1994).

(ii) The inspection requirements of this AD are AMOCs for the post-modification inspection requirements of paragraph B. of AD 84-19-01, Amendment 39-4913 (49 FR 35365, September 17, 1984); and paragraph (b) of AD 94-13-06, Amendment 39-8946 (59 FR 32879, June 27, 1994).

(iii) The inspection requirements of this AD are AMOCs for the inspections of Structural Significant Item (SSI) F-19A of Boeing Supplemental Structural Inspection Document D6-35022, Revision G, dated December 2000, as required by paragraphs (h) and (i) of AD 2004-07-22 R1, Amendment 39-15326 (73 FR 1052, January 7, 2008); corrected February 14, 2008 (73 FR 8589).

(5) AMOCs approved previously in accordance with AD 2006-01-07, Amendment 39-14446 (71 FR 1947, January 12, 2006), are approved as AMOCs for the corresponding provisions of paragraph (g) of this AD.

(6) AMOCs approved previously in accordance with AD 2006-01-07, Amendment 39-14446 (71 FR 1947, January 12, 2006), are approved as AMOCs for the corresponding repairs or modifications required by paragraph (h) of this AD provided that the actions are done within the compliance times specified in paragraph (h) of this AD. Compliance times in previously approved AMOCs are not approved for paragraph (h) of this AD.

#### **(o) Related Information**

For more information about this AD, contact Nathan Weigand, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: (425) 917-6428; fax: (425) 917-6590; email: nathan.p.weigand@faa.gov.

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

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

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

(3) The following service information was approved for IBR on August 14, 2012.

(i) Boeing Alert Service Bulletin 747-53A2502, Revision 1, dated June 17, 2010.

(ii) Boeing Alert Service Bulletin 747-53A2605, Revision 1, dated May 27, 2010.

(4) The following service info was approved for IBR on February 16, 2006 (71 FR 1947, January 12, 2006).

(i) Boeing Special Attention Service Bulletin 747-53A2502, dated April 21, 2005. (5) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>.

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

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

Issued in Renton, Washington, on June 19, 2012.

John P. Piccola,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2012-13-09 The Boeing Company:** Amendment 39-17111; Docket No. FAA-2010-1115; Directorate Identifier 2010-NM-221-AD.

**(a) Effective Date**

This AD is effective August 16, 2012.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to The Boeing Company Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series airplanes, certificated in any category; as identified in Boeing Service Bulletin 747-30-2081, Revision 3, dated December 5, 2011.

**(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 30: Ice and rain protection.

**(e) Unsafe Condition**

This AD was prompted by several reports of electrical arcs at the terminal "A" connections of the electrically heated flight deck window 1. We are issuing this AD to prevent smoke and fire in the cockpit, which could lead to loss of visibility, and injuries to or incapacitation of the flightcrew.

**(f) Compliance**

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

**(g) Detailed Inspection and Corrective Actions**

Within 500 flight hours after the effective date of this AD, do a detailed inspection for damage (including but not limited to a cross-threaded screw, arcing, loose terminal, and heat damage) of the electrical terminal "A" block, connector, and wiring of the left and right flightdeck window 1, and do all applicable corrective actions, by accomplishing the actions specified in Work Packages 1 and 2 of the Accomplishment Instructions of Boeing Service Bulletin 747-30-2081, Revision 3, dated December 5, 2011. Except as provided by paragraph (i) of this AD, do all applicable corrective actions before further flight. Except as required by paragraph (h) of this AD, repeat the detailed inspection thereafter at the applicable intervals specified in paragraph (g)(1) or (g)(2) of this AD. Doing the replacement specified in paragraph (j) of this AD terminates the repetitive inspection requirements of this paragraph for the replaced flightdeck window 1.

(1) For flightdeck window 1 manufactured by GKN with screw/connector electrical connections: Repeat the detailed inspection at intervals not to exceed 12,000 flight hours or 48 months, whichever occurs later.

(2) For flightdeck window 1 manufactured by PPG with screw/connector electrical connections: Repeat the detailed inspection at intervals not to exceed 6,000 flight hours or 24 months, whichever occurs later.

#### **(h) Inspection for Replaced Windshield**

For any window 1 that is replaced with a window 1 that uses screw and connector for the electrical heat connection in accordance with Work Package 1 or 2 of the Accomplishment Instructions of Boeing Service Bulletin 747-30-2081, Revision 3, dated December 5, 2011: Within 500 flight hours after the corrective action, do a detailed inspection, in accordance with Work Package 1 or 2, as applicable, of the Accomplishment Instructions of Boeing Service Bulletin 747-30-2081, Revision 3, dated December 5, 2011, and repeat the detailed inspection thereafter at the applicable intervals specified in paragraph (g)(1) or (g)(2) of this AD. Doing the replacement specified in paragraph (j) of this AD terminates the repetitive inspection requirements of this paragraph for the replaced flightdeck window 1.

#### **(i) Window 1 Conditional Replacement**

If, during the inspection required by paragraph (g) or (h) of this AD, a screw is found crossthreaded, do the applicable corrective actions specified in paragraph (i)(1) or (i)(2) of this AD.

(1) If the connector is loose and cannot be tightened by applying the correct torque, before further flight, replace that window 1 in accordance with the Accomplishment Instructions of Boeing Service Bulletin 747-30-2081, Revision 3, dated December 5, 2011.

(2) If the connector is tight or can be tightened by applying the correct torque, replace that window 1 within 500 flight hours after the inspection, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 747-30-2081, Revision 3, dated December 5, 2011.

#### **(j) Optional Terminating Action**

Replacing a flightdeck window 1 that uses screw and connector for the electrical heat connection with a flightdeck window 1 that uses pin and socket for the electrical connection, in accordance with Work Package 3 or 4 of the Accomplishment Instructions of Boeing Service Bulletin 747-30-2081, Revision 3, dated December 5, 2011, ends the repetitive inspection requirements of this AD for that window 1 only.

#### **(k) Credit for Previous Actions**

This paragraph provides credit for the inspections and corrective actions required by this AD, and for the window replacement specified in paragraph (j) of this AD for the replaced window 1 only, if the corresponding actions were performed before the effective date of this AD using the service information identified in paragraph (k)(1), (k)(2), or (k)(3) of this AD.

(1) Boeing Special Attention Service Bulletin 747-30-2081, dated August 8, 2006.

(2) Boeing Special Attention Service Bulletin 747-30-2081, Revision 1, dated August 20, 2008.

(3) Boeing Special Attention Service Bulletin 747-30-2081, Revision 2, dated March 10, 2010.

#### **(l) 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 Principal Maintenance Inspector or Principal Avionics Inspector, as appropriate, or lacking a principal inspector, your local Flight Standards District Office.

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

For more information about this AD, contact Louis Natsiopoulos, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6478; fax: 425-917-6590; email: Elias.Natsiopoulos@faa.gov.

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

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

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

(i) Boeing Service Bulletin 747-30-2081, Revision 3, dated December 5, 2011.

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

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

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

Issued in Renton, Washington, on June 27, 2012.

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