

**FEDERAL AVIATION ADMINISTRATION  
AIRWORTHINESS DIRECTIVES**

**LARGE AIRCRAFT  
BIWEEKLY 2013-07**

*3/25/2013 - 4/7/2013*



Federal Aviation Administration  
Engineering Procedures Office, AIR-110  
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Oklahoma City, OK 73125-0460

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# LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S - Supersedes			
<b>Biweekly 2013-01</b>			
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
<b>Biweekly 2013-02</b>			
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
<b>Biweekly 2013-03</b>			
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

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AD No.	Information	Manufacturer	Applicability
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<b>Biweekly 2013-04</b>			
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
<b>Biweekly 2013-05</b>			
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
<b>Biweekly 2013-06</b>			
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

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AD No.	Information	Manufacturer	Applicability
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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
<b>Biweekly 2013-07</b>			
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



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**2013-05-10 The Boeing Company:** Amendment 39-17382; Docket No. FAA-2011-1417; Directorate Identifier 2011-NM-159-AD.

**(a) Effective Date**

This AD is effective May 3, 2013.

**(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 Special Attention Service Bulletin 777-25-0507, dated June 30, 2011.

**(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 25, Equipment/Furnishings.

**(e) Unsafe Condition**

This AD was prompted by reports that escape slides/rafts did not deploy due to galvanic corrosion of the door-mounted slide/raft packboard release mechanisms. We are issuing this AD to detect and correct corrosion in the packboard release mechanisms, which could interfere with escape slide/raft deployment, prohibit doors from opening in the armed mode, and cause consequent delay and injury during evacuation of passengers and crew from the cabin in the event of an emergency.

**(f) Compliance**

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

**(g) Inspection and Replacement**

Within 42 months after the effective date of this AD, at the applicable passenger/crew entry doors identified in Boeing Special Attention Service Bulletin 777-25-0507, dated June 30, 2011, that have not been modified as specified in Air Cruisers Service Bulletin 777 107-25-30, dated September 30, 2010 (which is not incorporated by reference in this AD): Do a general visual inspection of the housing assembly of the packboard release mechanism to determine if its surface treatment has been sealed; and if unsealed, before further flight, replace the housing assembly with a new or serviceable housing assembly; in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-25-0507, dated June 30, 2011.

Note 1 to paragraph (g) of this AD: Boeing Special Attention Service Bulletin 777-25-0507, dated June 30, 2011, refers to Air Cruisers Service Bulletin 777 107-25-30, dated September 30, 2010 (which is not incorporated by reference in this AD), as an additional source of guidance for inspecting and installing a new housing assembly of the door-mounted slide/raft packboard release mechanism.

**(h) Optional Terminating Action**

Verifying the housing assembly has been replaced with a new or serviceable housing assembly by inspecting for a stencil to verify that there is a stencil marked "Inspected and/or Mod per S.B. 777 107-25-30" on the girt assembly and upper lacing cover on the housing assembly of the packboard release mechanism; or by reviewing technical or maintenance records, if it can be conclusively determined that the modification specified in Air Cruisers Service Bulletin 777 107-25-30, dated September 30, 2010, (which is not incorporated by reference in this AD), as specified in Boeing Special Attention Service Bulletin 777-25-0507, dated June 30, 2011, has been accomplished; terminates the requirements of paragraph (g) of this AD.

**(i) Definition of a General Visual Inspection**

For the purposes of this AD, a general visual inspection is: A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to ensure visual access to all surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or droplight and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked.

**(j) 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.

**(k) Related Information**

(1) For more information about this AD, contact Ana Martinez Hueto, Aerospace Engineer, Cabin Safety and Environmental Systems Branch, ANM-150S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6592; fax: 425-917-6591; email: ana.m.hueto@faa.gov.

(2) For Air Cruisers service information identified in this AD, contact Air Cruisers Company, 1747 State Route 34, Wall, NJ 07727-3935; telephone: 732 681-3527; fax: 732 681-9163; email: Aircruisers@zodiacaerospace.com. You may review copies of the referenced 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.

**(I) 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 Special Attention Service Bulletin 777-25-0507, dated June 30, 2011.

(ii) Reserved.

(3) 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>.

(4) 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.

(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 March 5, 2013.

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



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**2013-05-12 Embraer S.A.:** Amendment 39-17384. Docket No. FAA-2012-1077; Directorate Identifier 2012-NM-146-AD.

**(a) Effective Date**

This airworthiness directive (AD) becomes effective May 3, 2013.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to the airplanes identified in paragraphs (c)(1), (c)(2), and (c)(3) of this AD.

(1) Embraer S.A. Model ERJ 170-100 LR, -100 STD, -100 SE., and -100 SU airplanes; and Model ERJ 170-200 LR, -200 SU, and -200 STD airplanes; certificated in any category; as identified in Embraer Service Bulletin 170-26-0011, Revision 02, dated October 17, 2012.

(2) Embraer S.A. Model ERJ 190-100 STD, -100 LR, and -100 IGW airplanes; and Model ERJ 190-200 STD, -200 LR, and -200 IGW airplanes; certificated in any category; as identified in Embraer Service Bulletin 190-26-0011, Revision 02, dated October 17, 2012.

(3) Embraer S.A. Model ERJ 190-100 ECJ airplanes, certificated in any category, as identified in Embraer Service Bulletin 190LIN-26-0006, Revision 02, dated September 28, 2012.

**(d) Subject**

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

**(e) Reason**

This AD was prompted by a report that high rate discharge (HRD) bottle explosive cartridges of a cargo compartment fire extinguisher system were swapped between the forward and aft cargo compartments. Additional investigation also revealed the possibility of swapping between the electrical connectors of the HRD and low rate discharge (LRD) bottles, and a rotated installation of the HRD bottle. We are issuing this AD to prevent the inability of the fire extinguishing system to suppress 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) Inspections and Corrective Actions for Group 1 Airplanes**

For airplanes on which Embraer Service Bulletin 170-26-0011, dated December 1, 2011 (for Model ERJ 170-100 LR, -100 STD, -100 SE., and -100 SU airplanes; and Model ERJ 170-200 LR, -

200 SU, and -200 STD airplanes); Embraer Service Bulletin 190-26-0011, dated December 1, 2011 (for Model ERJ 190-100 STD, -100 LR, and -100 IGW airplanes); and Model ERJ 190-200 STD, -200 LR, and -200 IGW airplanes); or Embraer Service Bulletin 190LIN-26-0006, dated December 1, 2011 (for Model ERJ 190-100 ECJ airplanes); has not been accomplished as of the effective date of this AD: Within 3,000 flight hours after the effective date of this AD, do the actions specified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD. All actions must be done in accordance with Part I and Part II, as applicable, of the Accomplishment Instructions of Embraer Service Bulletin 170-26-0011, Revision 02, dated October 17, 2012 (for Model ERJ 170-100 LR, -100 STD, -100 SE., and -100 SU airplanes; and Model ERJ 170-200 LR, -200 SU, and -200 STD airplanes); Embraer Service Bulletin 190-26-0011, Revision 02, dated October 17, 2012 (for Model ERJ 190-100 STD, -100 LR, and -100 IGW airplanes; and Model ERJ 190-200 STD, -200 LR, and -200 IGW airplanes); or Embraer Service Bulletin 190LIN-26-0006, Revision 02, dated September 28, 2012 (for Model ERJ 190-100 ECJ airplanes).

(1) Do a general visual inspection of the HRD bottle to determine if it is correctly installed and if the pressure switch is in the correct position. If the bottle is not correctly installed or the pressure switch is in the incorrect position, before further flight, remove and re-install the HRD bottle.

(2) Inspect the HRD and LRD bottle discharge heads to determine the part number. If the part number of the discharge heads is not the part number specified in Figure 3 of Embraer Service Bulletin 170-26-0011, Revision 02, dated October 17, 2012 (for Model ERJ 170-100 LR, -100 STD, -100 SE., and -100 SU airplanes; and Model ERJ 170-200 LR, -200 SU, and -200 STD airplanes); Embraer Service Bulletin 190-26-0011, Revision 02, dated October 17, 2012 (for Model ERJ 190-100 STD, -100LR, and -100 IGW airplanes; and Model ERJ 190-200 STD, -200 LR, and -200 IGW airplanes); or Embraer Service Bulletin 190LIN-26-0006, Revision 02, dated September 28, 2012 (for Model ERJ 190-100 ECJ airplanes): Before further flight, replace the discharge bottle with a discharge bottle of the same part number that has a correct discharge head part number, as shown in Figure 3 of Embraer Service Bulletin 170-26-0011, Revision 02, dated October 17, 2012 (for Model ERJ 170-100 LR, -100 STD, -100 SE., and -100 SU airplanes; and Model ERJ 170-200 LR, -200 SU, and -200 STD airplanes); Embraer Service Bulletin 190-26-0011, Revision 02, dated October 17, 2012 (for Model ERJ 190-100 STD, -100LR, and -100 IGW airplanes; and Model ERJ 190-200 STD, -200 LR, and -200 IGW airplanes); or Embraer Service Bulletin 190LIN-26-0006, Revision 02, dated September 28, 2012 (for Model ERJ 190-100 ECJ airplanes), as applicable.

(3) Inspect to identify the HRD and LRD bottle electrical connectors. If the identification of the HRD or LRD bottle electrical connectors is not specified in Figure 1 of Embraer Service Bulletin 170-26-0011, Revision 02, dated October 17, 2012 (for Model ERJ 170-100 LR, -100 STD, -100 SE., and -100 SU airplanes; and Model ERJ 170-200 LR, -200 SU, and -200 STD airplanes); Embraer Service Bulletin 190-26-0011, Revision 02, dated October 17, 2012 (for Model ERJ 190-100 STD, -100LR, and -100 IGW airplanes; and Model ERJ 190-200 STD, -200 LR, and -200 IGW airplanes); or Embraer Service Bulletin 190LIN-26-0006, Revision 02, dated September 28, 2012 (for Model ERJ 190-100 ECJ airplanes): Before further flight, relocate the HRD or LRD bottle electrical connectors by re-routing the electrical harness.

#### **(h) Inspections and Corrective Actions for Group 2 Airplanes**

For airplanes on which Embraer Service Bulletin 170-26-0011, dated December 1, 2011 (for Model ERJ 170-100 LR, -100 STD, -100 SE., and -100 SU airplanes; and Model ERJ 170-200 LR, -200 SU, and -200 STD airplanes); Embraer Service Bulletin 190-26-0011, dated December 1, 2011 (for Model ERJ 190-100 STD, -100 LR, and -100 IGW airplanes; and Model ERJ 190-200 STD, -200 LR, and -200 IGW airplanes); or Embraer Service Bulletin 190LIN-26-0006, dated December 1, 2011 (for Model ERJ 190-100 ECJ airplanes); has been accomplished as of the effective date of this AD: Within 3,000 flight hours after the effective date of this AD, do the actions specified in paragraphs (h)(1) and (h)(2) of this AD. All actions must be done in accordance with Part III of the Accomplishment Instructions of Embraer Service Bulletin 170-26-0011, Revision 02, dated October

17, 2012 (for Model ERJ 170-100 LR, -100 STD, -100 SE., and -100 SU airplanes; and Model ERJ 170-200LR, -200 SU, and -200 STD airplanes); Embraer Service Bulletin 190-26-0011, Revision 02, dated October 17, 2012 (for Model ERJ 190-100 STD, -100LR, and -100 IGW airplanes; and Model ERJ 190-200 STD, -200 LR, and -200 IGW airplanes); or Embraer Service Bulletin 190LIN-26-0006, Revision 02, dated September 28, 2012 (for Model ERJ 190-100 ECJ airplanes).

(1) Do a general visual inspection of the HRD bottle to determine if it is correctly installed and if the pressure switch is in the correct position. If the bottle is not correctly installed or the pressure switch is in the incorrect position, before further flight, remove and re-install the HRD bottle.

(2) Inspect the HRD and LRD bottle discharge heads to determine the part number. If the part number of the discharge heads is not the part number specified in Figure 3 of Embraer Service Bulletin 170-26-0011, Revision 02, dated October 17, 2012 (for Model ERJ 170-100 LR, -100 STD, -100 SE., and -100 SU airplanes; and Model ERJ 170-200 LR, -200 SU, and -200 STD airplanes); Embraer Service Bulletin 190-26-0011, Revision 02, dated October 17, 2012 (for Model ERJ 190-100 STD, -100 LR, and -100 IGW airplanes; and Model ERJ 190-200 STD, -200 LR, and -200 IGW airplanes); or Embraer Service Bulletin 190LIN-26-0006, Revision 02, dated September 28, 2012 (for Model ERJ 190-100 ECJ airplanes); before further flight, replace the discharge bottle with a discharge bottle of the same part number that has a correct discharge head part number, as shown in Figure 3 of Embraer Service Bulletin 170-26-0011, Revision 02, dated October 17, 2012 (for Model ERJ 170-100 LR, -100 STD, -100 SE., and -100 SU airplanes; and Model ERJ 170-200 LR, -200 SU, and -200 STD airplanes); Embraer Service Bulletin 190-26-0011, Revision 02, dated October 17, 2012 (for Model ERJ 190-100 STD, -100 LR, and -100 IGW airplanes; and Model ERJ 190-200 STD, -200 LR, and -200 IGW airplanes); or Embraer Service Bulletin 190LIN-26-0006, Revision 02, dated September 28, 2012 (for Model ERJ 190-100 ECJ airplanes), as applicable.

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

This paragraph provides credit for the applicable actions required by paragraphs (g) and (h) of this AD, if those actions were performed before the effective date of this AD using the applicable service bulletins specified in paragraphs (i)(1), (i)(2), and (i)(3) of this AD.

(1) For Model ERJ 170-100 LR, -100 STD, -100 SE., and -100 SU airplanes; and Model ERJ 170-200 LR, -200 SU, and -200 STD airplanes: Embraer Service Bulletin 170-26-0011, Revision 01, dated June 19, 2012.

(2) For Model ERJ 190-100 STD, -100 LR, and -100 IGW airplanes; and Model ERJ 190-200 STD, -200 LR, and -200 IGW airplanes: Embraer Service Bulletin 190-26-0011, Revision 01, dated June 19, 2012.

(3) For Model ERJ 190-100 ECJ airplanes: Embraer Service Bulletin 190LIN-26-0006, Revision 01, dated June 19, 2012.

#### **(j) 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: Cindy Ashforth, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone (425) 227-2768; 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.

**(k) Related Information**

Refer to MCAI Brazilian Airworthiness Directives 2012-07-01 and 2012-07-02, both effective July 30, 2012, and the service bulletins identified in paragraphs (k)(1), (k)(2), and (k)(3) of this AD, for related information.

- (1) Embraer Service Bulletin 170-26-0011, Revision 02, dated October 17, 2012.
- (2) Embraer Service Bulletin 190-26-0011, Revision 02, dated October 17, 2012.
- (3) Embraer Service Bulletin 190LIN-26-0006, Revision 02, dated September 28, 2012.

**(l) 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) Embraer Service Bulletin 170-26-0011, Revision 02, October 17, 2012.
- (ii) Embraer Service Bulletin 190-26-0011, Revision 02, dated October 17, 2012.
- (iii) Embraer Service Bulletin 190LIN-26-0006, Revision 02, dated September 28, 2012.

(3) For service information identified in this AD, contact Embraer S.A., Technical Publications Section (PC 060), Av. Brigadeiro Faria Lima, 2170–Putim–12227-901 São Jose dos Campos–SP–BRASIL; telephone +55 12 3927-5852 or +55 12 3309-0732; fax +55 12 3927-7546; email [distrib@embraer.com.br](mailto:distrib@embraer.com.br); Internet <http://www.flyembraer.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 March 6, 2013.

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



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**2013-06-03 Airbus:** Amendment 39-17399. Docket No. FAA-2012-0150; Directorate Identifier 2011-NM-234-AD.

**(a) Effective Date**

This airworthiness directive (AD) becomes effective May 3, 2013.

**(b) Affected ADs**

None.

**(c) Applicability**

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

**(d) Subject**

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

**(e) Reason**

This AD was prompted by reports of oil residue between the stator and the rotor parts of the position resolvers of the angle of attack (AOA) vane, which was a result of incorrect removal of the machining oil during the manufacturing process of the AOA resolvers. We are issuing this AD to prevent erroneous AOA information and consequent delayed or non-activation of the AOA protection systems, which during flight at a high angle of attack, could result in reduced 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) Inspection**

Within 12 months after the effective date of this AD, except as provided by paragraph (h) of this AD: Do the inspections specified in paragraphs (g)(1) and (g)(2) of this AD.

(1) Inspect to determine the part number (P/N) and serial number of each Thales Avionics AOA probe, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-34-1452, dated January 29, 2010. If any probe is found having P/N C16291AA and having a serial number listed in Thales Avionics Service Bulletin C16291A-34-007, Revision 04, dated October 11, 2012: Within 12 months after the effective date of this AD, replace the AOA probe, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-34-1452, provided that

Thales Avionics Service Bulletin C16291A-34-009, dated September 10, 2009; or Airbus Service Bulletin A320-34-1444, dated October 7, 2009; have not been accomplished. Thales Avionics Service Bulletin C16291A-34-009, dated September 10, 2009; and Airbus Service Bulletin A320-34-1444, dated October 7, 2009; (which are not incorporated by reference in this AD) cannot be used for the installation of AOA probes having P/N C16291AB. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number and serial number of the installed AOA probes can be conclusively determined from that review.

(2) Inspect to determine the part number and serial number of each Thales Avionics AOA probe, in accordance with paragraph 3.C.(1)(a) of the Accomplishment Instructions of Airbus Service Bulletin A320-34-1452, dated January 29, 2010. If any probe is found having P/N C16291AB, on which Thales Avionics Service Bulletin C16291A-34-009, dated September 10, 2009; or Airbus Service Bulletin A320-34-1444, dated October 7, 2009; (which are not incorporated by reference in this AD) has been accomplished: Within 12 months after the effective date of this AD, replace the AOA probe, in accordance with a method approved by the Manager, International Branch, ANM-116, FAA, or European Aviation Safety Agency (EASA) (or its delegated agent). A review of airplane maintenance records is acceptable in lieu of the inspection specified in this paragraph if the part number of the installed AOA probes can be conclusively determined from that review.

Note 1 to paragraph (g)(2) of this AD: Additional guidance for replacing the AOA probes may be found in Task 34-11-19-000-001-A, Removal of the Angle of Attack Sensor, of the Airbus A318/A319/A320/A321 Aircraft Maintenance Manual, which is not incorporated by reference in this AD.

### **(h) Exception to the Requirements of Paragraph (g) of This AD**

For any airplane on which Airbus modification 150006 (installation of Thales Avionics AOA probes P/N C16291AB) or modification 26934 (installation of Goodrich AOA probes P/N 0861ED) has been embodied in production, and on which no AOA probe replacement has been made since first flight: The actions specified in paragraph (g) of this AD are not required.

### **(i) Parts Installation Limitation and Prohibition**

(1) As of the effective date of this AD, no person may install a Thales Avionics AOA probe, P/N C16291AA, having a serial number listed in Thales Avionics Service Bulletin C16291A-34-007, Revision 04, dated October 11, 2012, on any airplane, unless that Thales Avionics probe has been inspected, re-identified, and tested, in accordance with the Accomplishment Instructions of the service information specified in paragraphs (i)(1)(i) through (i)(1)(iv) of this AD.

(i) Thales Avionics Service Bulletin C16291A-34-007, Revision 04, dated October 11, 2012.

(ii) Thales Avionics Service Bulletin C16291A-34-007, Revision 03, dated April 10, 2012.

(iii) Thales Avionics Service Bulletin C16291A-34-007, Revision 02, dated December 16, 2011.

(iv) Thales Avionics Service Bulletin C16291A-34-007, Revision 01, dated December 3, 2009.

(2) As of the effective date of this AD, no person may install a Thales Avionics AOA probe, P/N C16291AB, on which Thales Avionics Service Bulletin C16291A-34-009, dated September 10, 2009; or Airbus Service Bulletin A320-34-1444, dated October 7, 2009; (which are not incorporated by reference in this AD) has been incorporated.

### **(j) 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, Washington 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.

### **(k) Related Information**

Refer to MCAI EASA AD 2011-0203, dated October 13, 2011, and the service information specified in paragraphs (k)(1) through (k)(5) of this AD, for related information.

- (1) Airbus Service Bulletin A320-34-1452, dated January 29, 2010.
- (2) Thales Avionics Service Bulletin C16291A-34-007, Revision 04, dated October 11, 2012.
- (3) Thales Avionics Service Bulletin C16291A-34-007, Revision 03, dated April 10, 2012.
- (4) Thales Avionics Service Bulletin C16291A-34-007, Revision 02, dated December 16, 2011.
- (5) Thales Avionics Service Bulletin C16291A-34-007, Revision 01, dated December 3, 2009.

### **(l) 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 A320-34-1452, dated January 29, 2010.
- (ii) Thales Avionics Service Bulletin C16291A-34-007, Revision 04, dated October 11, 2012.
- (iii) Thales Avionics Service Bulletin C16291A-34-007, Revision 03, dated April 10, 2012.

Pages 1, 8, 10, 11, and 13 of this document are identified as Revision 03, dated April 10, 2012. Pages 2, 7, and 12 are identified as Revision 01, dated December 3, 2009. Page 9 is identified as Revision 02, dated December 16, 2011.

(iv) Thales Avionics Service Bulletin C16291A-34-007, Revision 02, dated December 16, 2011. Pages 1, and pages 8 through 10 of this document are identified as Revision 02, dated December 16, 2011; pages 2 through 7, and pages 11 through 13 are identified as Revision 01, dated December 3, 2009.

- (v) Thales Avionics Service Bulletin C16291A-34-007, Revision 01, dated December 3, 2009.

(3) For Airbus service information identified in this AD, contact Airbus, Airworthiness Office—EAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com; Internet <http://www.airbus.com>. For Thales Avionics service information identified in this AD, contact Thales Avionics, Retrofit Manager, 105, Avenue du Général Eisenhower, BP 63647, 31036 Toulouse Cedex 1, France; telephone +33 5 61 19 76 95; fax +33 5 61 19 68 20; email retrofit.ata@fr.thalesgroup.com; Internet <http://www.thalesgroup.com/aerospace>.

(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 March 8, 2013.  
Ali Bahrami,  
Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2013-06-05 The Boeing Company:** Amendment 39-17402; Docket No. FAA-2012-0994; Directorate Identifier 2012-NM-119-AD.

**(a) Effective Date**

This AD is effective May 9, 2013.

**(b) Affected ADs**

This AD supersedes AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010).

**(c) Applicability**

This AD applies to all The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, certificated in any category.

**(d) Subject**

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

**(e) Unsafe Condition**

This AD was prompted by reports of failure of the aft attach lugs on the elevator tab control mechanisms, which resulted in severe elevator vibration. This AD also results from reports of gaps in elevator tab control mechanisms and analysis that additional elevator tab control mechanisms might have bearings that will come loose. We are issuing this AD to prevent discrepancies in the aft attach lugs of the elevator tab control mechanism, which could result in severe elevator and tab vibration. Consequent structural failure of the elevator or horizontal stabilizer could result in loss of structural integrity and aircraft control.

**(f) Compliance**

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

**(g) Retained Repetitive Inspections for Group 1 Airplanes**

This paragraph restates the requirements of paragraph (g) of AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010). For Group 1 airplanes, as identified in Boeing Alert Service Bulletin 737-27A1297, dated April 16, 2010: Except as required by paragraph (h) of this AD, within 12 days after April 29, 2010 (the effective date of AD 2010-09-05, Amendment 39-16270 (75 FR 21499, April 26, 2010)), do a detailed inspection for discrepancies of the inboard and outboard aft attach lugs of the left and right elevator tab control mechanisms, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-27A1297, dated April 16, 2010. Repeat the inspection thereafter at intervals not to exceed 300 flight hours. Doing the replacement

specified in paragraph (l) of this AD before September 9, 2010 (the effective date of AD 2010-17-19), terminates the requirements of this paragraph. Doing the inspection required by paragraph (n) of this AD terminates the requirements of this paragraph.

**(h) Retained Extended Twin Operations (ETOPS) Flight Provisions**

This paragraph restates the requirements of paragraph (h) of AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010). For Group 1 airplanes as identified in Boeing Alert Service Bulletin 737-27A1297, dated April 16, 2010: Beginning 7 days after April 29, 2010 (the effective date of AD 2010-09-05, Amendment 39-21499 (75 FR 21499, April 26, 2010)), no person may operate an airplane on an ETOPS flight unless the initial inspection required by paragraph (g) of this AD has been accomplished. Doing the inspection required by paragraph (n) of this AD terminates the requirements of this paragraph.

**(i) Retained One-Time Inspection for Group 2, Configuration 1, Airplanes**

This paragraph restates the requirements of paragraph (i) of AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010). For Group 2, Configuration 1, airplanes as identified in Boeing Alert Service Bulletin 737-27A1297, dated April 16, 2010: Within 30 days after April 29, 2010 (the effective date of AD 2010-09-05, Amendment 39-16270 (75 FR 21499, April 26, 2010)), do a one-time detailed inspection for discrepancies of the inboard and outboard aft attach lugs of the left and right elevator tab control mechanisms, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-27A1297, dated April 16, 2010. Doing the inspection required by paragraph (n) of this AD terminates the requirements of this paragraph.

**(j) Corrective Actions for Paragraphs (g), (i), and (k) of This AD**

This paragraph restates the requirements of paragraph (j) of AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010). If, during any inspection required by paragraph (g), (i), or (k) of this AD, any discrepancy is found, before further flight, replace the elevator tab control mechanism by doing the actions specified in paragraphs (j)(1) and (j)(2) of this AD.

(1) Do a detailed inspection for discrepancies of the replacement elevator tab control mechanism; and, if no discrepancy is found, install the replacement elevator tab control mechanism; in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-27A1297, dated April 16, 2010. If any discrepancy is found, then that elevator tab control mechanism cannot be installed and the actions specified in this paragraph must be done before further flight on another replacement elevator tab control mechanism.

(2) Re-inspect the installed elevator tab control mechanism using the inspection procedure specified in paragraph (i) of this AD.

**(k) Retained Repetitive Inspections for Certain Group 2, Configuration 1, Airplanes**

This paragraph restates the requirements of paragraph (k) of AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010). For Group 2, Configuration 1, airplanes as identified in Boeing Alert Service Bulletin 737-27A1297, dated April 16, 2010, on which the elevator tab control mechanism is replaced with a mechanism other than a new, Boeing-built mechanism: Within 300 flight hours after doing the replacement, do a detailed inspection for discrepancies of the inboard and outboard aft attach lugs of the left and right elevator tab control mechanisms, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-27A1297, dated April 16, 2010. Repeat the inspection thereafter at intervals not to exceed 300 flight hours. Doing the replacement specified in paragraph (l) of this AD before September 9, 2010 (the effective date of AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010)), is terminating action for this paragraph.

Doing the inspection required by paragraph (n) of this AD terminates the requirements of this paragraph.

### **(l) Terminating Action Credit for Paragraphs (g), (i), and (k) of This AD**

This paragraph restates the requirements of paragraph (l) of AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010). Replacing an elevator tab control mechanism with a new, Boeing-built mechanism before September 9, 2010 (the effective date of AD 2010-17-19), as specified in paragraphs (l)(1) and (l)(2) of this AD, terminates the inspections required by paragraphs (g), (i), and (k) of this AD. Replacement of the elevator tab control mechanism on or after September 9, 2010 (the effective date of AD 2010-17-19), does not terminate the inspections required by paragraphs (g), (i), and (k) of this AD.

Note 1 to paragraph (l) of this AD: Additional guidance can be found in paragraphs 3.B.7.b.(1)(a)(1) and 3.B.7.b.(1)(a)(2) of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-27A1297, dated April 16, 2010, for establishing whether the mechanism is Boeing built.

(1) Do a detailed inspection for discrepancies of the new, Boeing-built replacement elevator tab control mechanism; and, if no discrepancy is found, install the replacement elevator tab control mechanism; in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-27A1297, dated April 16, 2010. If any discrepancy is found, then that elevator tab control mechanism cannot be installed and the actions specified in this paragraph must be done on another new, Boeing-built replacement elevator tab control mechanism.

(2) Re-inspect the installed elevator tab control mechanism using the inspection procedure specified in paragraph (i) of this AD.

### **(m) Retained Reporting for Paragraphs (g), (i), and (k) of This AD**

This paragraph restates the requirements of paragraph (m) of AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010). For airplanes identified in Boeing Alert Service Bulletin 737-27A1297, dated April 16, 2010: At the applicable time specified in paragraph (m)(1) or (m)(2) of this AD, submit a report of any findings (positive and negative) of the first inspection required by paragraphs (g), (i), and (k) of this AD, and any positive findings from the repetitive inspections required by paragraphs (g) and (k) of this AD, to Boeing Commercial Airplanes Group, Attention: Manager, Airline Support, email: rse.boecom@boeing.com. The report must include the inspection results including a description of any discrepancies found, the airplane line number, and the total number of flight cycles and flight hours accumulated on the airplane.

(1) If the inspection was done on or after April 29, 2010 (the effective date of AD 2010-09-05, Amendment 39-16270 (75 FR 21499, April 26, 2010)): Submit the report within 10 days after the inspection.

(2) If the inspection was done before April 29, 2010 (the effective date of AD 2010-09-05, Amendment 39-16270 (75 FR 21499, April 26, 2010)): Submit the report within 10 days after April 29, 2010 (the effective date of AD 2010-09-05).

### **(n) Retained Repetitive Inspections**

This paragraph restates the requirements of paragraph (n) of AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010). For airplanes having line numbers 1 through 3909 inclusive: At the applicable time specified in paragraph (n)(1), (n)(2), or (n)(3) of this AD, do a detailed inspection for discrepancies of the inboard and outboard aft attach lugs of the left and right elevator tab control mechanisms, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-27A1297, Revision 1, dated August 2, 2010. For Groups 1 and 2 airplanes

identified in Boeing Alert Service Bulletin 737-27A1297, Revision 1, dated August 2, 2010, repeat the inspection thereafter at intervals not to exceed 300 flight hours, except as provided by paragraph (t)(2) of this AD. For Group 3 airplanes identified in Boeing Alert Service Bulletin 737-27A1297, Revision 1, dated August 2, 2010, repeat the inspection thereafter at intervals not to exceed 1,800 flight hours, except as required by paragraphs (p) and (t)(2) of this AD. Doing the inspection specified in this paragraph terminates the requirements of paragraphs (g), (h), (i), and (k) of this AD.

(1) For Group 1 airplanes identified in Boeing Alert Service Bulletin 737-27A1297, Revision 1, dated August 2, 2010: Within 300 flight hours after doing an inspection in accordance with Boeing Alert Service Bulletin 737-27A1297, dated April 16, 2010, or within 30 days after September 9, 2010 (the effective date of AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010)), whichever occurs later.

(2) For Group 2 airplanes identified in Boeing Alert Service Bulletin 737-27A1297, Revision 1, dated August 2, 2010: At the later of the times specified in paragraphs (n)(2)(i) and (n)(2)(ii) of this AD.

(i) Before the accumulation of 2,000 total flight cycles or 4,000 total flight hours, whichever occurs first.

(ii) Within 14 days after September 9, 2010 (the effective date of AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010)).

(3) For Group 3 airplanes identified in Boeing Alert Service Bulletin 737-27A1297, Revision 1, dated August 2, 2010: Within 180 days or 1,800 flight hours after September 9, 2010 (the effective date of AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010)), whichever occurs first.

#### **(o) Retained Corrective Actions for Paragraphs (n) and (p) of This AD**

This paragraph restates the requirements of paragraph (o) of AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010). If, during any inspection required by paragraph (n) or (p) of this AD, any discrepancy is found, before further flight, replace the elevator tab control mechanism by doing the actions specified in paragraphs (o)(1) and (o)(2) of this AD.

(1) Do a detailed inspection for discrepancies of the replacement elevator tab control mechanism; and, if no discrepancy is found, install the replacement elevator tab control mechanism; in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-27A1297, Revision 1, dated August 2, 2010. If any discrepancy is found, then that elevator tab control mechanism cannot be installed and the actions specified in this paragraph must be done before further flight on another replacement elevator tab control mechanism.

(2) Re-inspect the installed elevator tab control mechanism using the inspection procedure specified in paragraph (n) of this AD.

#### **(p) Retained Reduced Repetitive Inspection Interval for Group 3 Airplanes**

This paragraph restates the requirements of paragraph (p) of AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010). For Group 3 airplanes as identified in Boeing Alert Service Bulletin 737-27A1297, Revision 1, dated August 2, 2010, on which the elevator tab control mechanism is replaced during the actions required by paragraph (o) of this AD: Within 300 flight hours after doing the replacement, do a detailed inspection for discrepancies of the inboard and outboard aft attach lugs of the replaced elevator tab control mechanism, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-27A1297, Revision 1, dated August 2, 2010. Repeat the inspection of the replaced elevator tab control mechanism thereafter at intervals not to exceed 300 flight hours, except as provided by paragraph (t)(2) of this AD.

**(q) Retained Credit for Previous Action**

This paragraph restates the provisions specified in paragraph (q) of AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010). For Group 1 airplanes as identified in Boeing Alert Service Bulletin 737-27A1297, Revision 1, dated August 2, 2010: Inspections done in accordance with Boeing Alert Service Bulletin 737-27A1297, dated April 16, 2010, are acceptable for compliance with only the initial inspection required by paragraph (n) of this AD.

**(r) Retained Reporting for Paragraphs (n) and (p) of This AD**

This paragraph restates the requirements of paragraph (r) of AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010). For airplanes having line numbers 1 through 3909 inclusive: At the applicable time specified in paragraph (r)(1) or (r)(2) of this AD, submit a report of any findings (positive and negative) of the first inspection required by paragraphs (n) and (p) of this AD, except for airplanes on which a report required by paragraph (m) of this AD has been submitted, only submit positive findings; and submit a report of any positive findings from the repetitive inspections required by paragraphs (n) and (p) of this AD; to Boeing Commercial Airplanes Group, Attention: Manager, Airline Support, email: rse.boecom@boeing.com. The report must include the inspection results including a description of any discrepancies found, the airplane line number, and the total number of flight cycles and flight hours accumulated on the airplane.

(1) If the inspection was done on or after September 9, 2010 (the effective date of AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010)): Submit the report within 10 days after the inspection.

(2) If the inspection was done before September 9, 2010 (the effective date of AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010)): Submit the report within 10 days after September 9, 2010 (the effective date of AD 2010-17-19).

**(s) Retained Provision Regarding Not Returning Parts**

This paragraph restates the provision specified in paragraph (s) of AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010). Although Boeing Alert Service Bulletin 737-27A1297, dated April 16, 2010; and Boeing Alert Service Bulletin 737-27A1297, Revision 1, dated August 2, 2010; specify to return the affected elevator tab control mechanism to the manufacturer, this AD does not require the return of the part to the manufacturer.

**(t) Retained Parts Installation Limitations**

This paragraph restates the requirements of paragraph (t) of AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010), with revised limitations. As of September 9, 2010 (the effective date of AD 2010-17-19), and until the replacement required by paragraph (u) of this AD for airplanes with line numbers 1 through 3909 inclusive, or until the effective date of this new AD for airplanes with line numbers 3910 and subsequent, as applicable: Comply with the conditions specified in paragraphs (t)(1) and (t)(2) of this AD.

(1) No person may install an elevator tab control mechanism, part number (P/N) 251A2430(-), on any airplane, unless the mechanism has been inspected before and after installation using the inspection procedures specified in paragraphs (o)(1) and (o)(2) of this AD, and no discrepancies have been found.

(2) An elevator tab control mechanism, P/N 251A2430(-), may be installed, provided that the inspection specified in paragraph (n) of this AD is done within 300 flight hours after doing the installation, and that the inspection specified in paragraph (n) of this AD is repeated thereafter at intervals not to exceed 300 flight hours.

**(u) New Replacement**

For airplanes having line numbers 1 through 3909 inclusive: Within 60 months after the effective date of this AD, replace the left and right elevator tab control mechanisms with elevator tab control mechanisms that have new machined aft attach lugs, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737-27-1300, dated April 16, 2012. This replacement terminates the requirements of paragraphs (g) through (t) of this AD. Although Boeing Service Bulletin 737-27-1300, dated April 16, 2012, specifies submitting a report, there is no requirement to report completion of the replacement required by paragraph (u) of this AD.

**(v) New Parts Installation Prohibition**

As of the effective date of this AD, no person may install, on any airplane identified in paragraph (v)(1) or (v)(2) of this AD, an elevator tab control mechanism having P/N 251A2430-13, -14, -15, -16, -17, -18, -101, -102, -103, -104, -105, or -106.

- (1) Airplanes on which the replacement in paragraph (u) of this AD has been accomplished.
- (2) Airplanes with line numbers 3910 and subsequent.

**(w) Paperwork Reduction Act Burden Statement**

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.

**(x) 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 for AD 2010-17-19, Amendment 39-16413 (75 FR 52242, August 25, 2010), are approved as AMOCs for the corresponding provisions of this AD. The expiration of the AMOCs to AD 2010-17-19, as specified in the service information identified in paragraphs (x)(4)(i)

and (x)(4)(ii) of this AD, is extended to remain valid until accomplishment of the requirements of paragraph (u) of this AD.

(i) Boeing Alert Service Bulletin 737-27A1299, dated July 1, 2011 (which is not incorporated by reference in this AD).

(ii) Boeing Alert Service Bulletin 737-27A1299, Revision 1, dated April 16, 2012 (which is not incorporated by reference in this AD).

### **(y) Related Information**

For more information about this AD, contact Kelly McGuckin, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6490; fax: 425-917-6590; email: kelly.mcguickin@faa.gov.

### **(z) 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 May 9, 2013.

(i) Boeing Service Bulletin 737-27-1300, dated April 16, 2012.

(ii) Reserved.

(4) The following service information was approved for IBR on September 9, 2010 (75 FR 52242, August 25, 2010).

(i) Boeing Alert Service Bulletin 737-27A1297, Revision 1, dated August 2, 2010.

(ii) Reserved.

(5) The following service information was approved for IBR on April 29, 2010 (75 FR 21499, April 26, 2010).

(i) Boeing Alert Service Bulletin 737-27A1297, dated April 16, 2010.

(ii) Reserved.

(6) 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>.

(7) You may view this service information at FAA, You may review copies of the referenced 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.

(8) 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 March 20, 2013.

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



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**2013-06-06 General Electric Company:** Amendment 39-17403; Docket No. FAA-2012-1288; Directorate Identifier 2012-NE-37-AD.

**(a) Effective Date**

This AD is effective May 8, 2013.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to General Electric Company (GE) 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, with an operability bleed valve (OBV) part number (P/N) 4121T67P02, P/N 4121T67P03, P/N 4121T67P04, parts manufacturer approval (PMA) P/N 3291552-2, PMA P/N 3291552-3, or PMA P/N 3291552-4, installed.

**(d) Unsafe Condition**

This AD was prompted by three failure events of ring lock fuel fittings on the OBV. Two of those events led to an engine fire. We are issuing this AD to prevent failure of OBV ring lock fuel fittings, engine fuel leakage, uncontrolled fire, and damage to the airplane.

**(e) Compliance**

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

**(f) Remove OBVs**

(1) For OBVs with fewer than 6,000 flight hours since new on the effective date of this AD, remove the OBV from service before accumulating 12,000 flight hours since new, or within four years after the effective date of this AD, whichever occurs first.

(2) For OBVs with 6,000 or more flight hours since new on the effective date of this AD, remove the OBV from service before accumulating an additional 6,000 flight hours, or within two years after the effective date of this AD, whichever occurs first.

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

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

**(h) Related Information**

(1) For more information about this AD, contact John Frost, Aerospace Engineer, Engine & Propeller Directorate, FAA, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7756; fax: 781-238-7199; email: john.frost@faa.gov.

(2) Refer to GE Service Bulletin (SB) No. CF34-8C-AL S/B 75-0017, Revision 1, dated October 9, 2012, and SB No. CF34-8E-AL S/B 75-0012, Revision 1, dated October 9, 2012, for related information.

(3) For service information identified in this AD, contact General Electric Company, One Neumann Way, MD Y-75, Cincinnati, OH; phone: 513-552-2913; email: geae.aoc@ge.com; and Web site: www.GE.com. You may view the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

**(i) Material Incorporated by Reference**

None.

Issued in Burlington, Massachusetts, on March 21, 2013.  
Robert J. Ganley,  
Acting Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.