

**FEDERAL AVIATION ADMINISTRATION  
AIRWORTHINESS DIRECTIVES**

**LARGE AIRCRAFT  
BIWEEKLY 2016-26**

*12/12/2016 - 12/25/2016*



Federal Aviation Administration  
Continued Operational Safety Policy Section, AIR-141  
P.O. Box 25082  
Oklahoma City, OK 73125-0460

## CHANGE OF ADDRESS NOTICE

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

Please allow one month for an address change.

### MAIL YOUR ADDRESS CHANGE TO:

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

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

## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S – Supersedes, R - Replaces			
<b>Biweekly 2016-01</b>			
2015-25-03	COR	The Boeing Company	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, and 747SR series airplanes
2015-25-06	R 2010-06-04	Airbus	A300 B2-1C, B2-203, B2K-3C, B4-103, B4-203, and B4-2C; A310-203, -204, -221, -222, -304, -322, -324, and -325; A300 B4-601, B4-603, B4-605R, B4-620, B-622, and B4-622R airplanes
2015-26-02		Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343; A340-211, -212, -213, -311, -312, -313, -541, and -642 airplanes
2015-26-03	R 2011-07-10	Bombardier, Inc.	BD-100-1A10 (Challenger 300) airplanes
2015-26-07		The Boeing Company	767-200, -300, -300F series airplanes
<b>Biweekly 2016-02</b>			
2015-25-10	R 2011-24-05	Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343; A340-211, -212, -213, -311, -312, and -313
2015-26-05		Fokker Services B.V.	F.28 Mark 1000, 2000, 3000, and 4000
2015-26-06	R 2004-14-09	Airbus	A320-211, -212, and -231
2015-26-09		ATR-GIE Avions de Transport Régional (ATR)	ATR42-200, -300, -320, and -500
2015-27-01		General Electric Company (GE)	GE90-76B, -77B, -85B, -90B, and -94B
2016-01-02		Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440)
2016-01-03		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, and A330-343; A340-211, A340-212, A340-213, A340-311, A340-312, and A340-313
2016-01-04	R 2005-01-09	The Boeing Company	747-100, -100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, and 747SR series
2016-01-05		The Boeing Company	737-400 series
2016-01-07		Airbus	A319-113 and A319-114; A320-211 and A320-212
2016-01-08	R 2013-13-04	Airbus	A318-111, -112, -121, and -122; A319-111, -112, -113, -114, -115, -131, -132, and -133; A320-211, -212, -214, -231, -232, and -233; and A321-111, -112, -131, -211, -212, -213, -231, and -232
2016-01-09		Bombardier, Inc.	DHC-8-400, -401, and -402
2016-01-11	R 98-18-26	Airbus	A320-211, -212, and -231
2016-01-12		Bombardier, Inc.	BD-700-1A10 and BD-700-1A11
2016-01-13		Airbus	A310-203, -204, -221, -222, -304, -322, -324, and -325; A300 B4-601, B4-603, B4-620, and B4-622; A300 B4-605R and B4-622R; and A300 F4-605R, F4-622R, and A300 C4-605R Variant F
2016-01-16	R 2002-23-20	Dassault Aviation	Mystere-Falcon 900
2016-01-17		Bombardier, Inc.	CL-600-2C10 (Regional Jet Series 700, 701, & 702)
<b>Biweekly 2016-03</b>			
2015-25-08	COR	The Boeing Company	777-200, -200LR, -300, -300ER, and 777F series airplanes
2015-28-01		Engine Alliance	GP7270 turbofan engines
2016-01-10	R 2004-20-14	Airbus	A300 airplanes
2016-01-18	R 98-20-27	Airbus	A300 airplanes
2016-02-01	R 96-18-06	Airbus	A320-211, -212, and -231 airplanes
2016-02-02		Airbus	A318-111 and -112; A319-111, -112, and -115; A320-214; A321-111, -112, -211, -212, and -213 airplanes
2016-02-03		Airbus	A319-113 and -114; A320-211 and -212 airplanes
2016-02-04		CFM International S.A.	CFM56-5B engines
2016-02-05		Bombardier, Inc.	BD-100-1A10 (Challenger 300) airplanes
2016-03-01		The Boeing Company	737-100, -200, -200C, -300, -400, and -500 series airplanes

## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S – Supersedes, R - Replaces			
<b>Biweekly 2016-04</b>			
2016-03-04		Rolls-Royce plc	(RR) RB211-535E4-37, RB211-535E4-B-37, and RB211-535E4-C-37 turbofan engines
2016-03-06	R 2012-18-05	The Boeing Company	DC-9-11, DC-9-12, DC-9-13, DC-9-14, DC-9-15, DC-9-15F, DC-9-21, DC-9-31, DC-9-32, DC-9-32 (VC-9C), DC-9-32F, DC-9-33F, DC-9-34, DC 9 34F, DC 9 32F (C-9A, C 9B), DC-9-41, DC-9-51, DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), MD-88, MD-90-30 airplanes.
2016-04-01	R 2015-26-02	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, -541, and -642 airplanes
2016-04-02	R 2010-26-10	The Boeing Company	747-200C, -200F, -400, -400D, and -400F series airplanes
2016-04-03		The Boeing Company	747-400F series airplanes
<b>Biweekly 2016-05</b>			
2016-04-06		The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series
2016-04-07		The Boeing Company	767-200, -300, -300F, and -400ER series
2016-04-08		The Boeing Company	787-8
2016-04-09		Dassault Aviation	FALCON 900EX and FALCON 2000EX
2016-04-10		ATR-GIE Avions de Transport Régional	ATR42-500 and ATR72-102, -202, -212, and -212A
2016-04-11		General Electric Company	GEEx-1B54, -1B58, -1B64, -1B67, and -1B70
2016-04-17		The Boeing Company	777-200 series
2016-04-18		The Boeing Company	747-100, -200B, -200C, -200F, -300, -400, -400D, and -400F series
2016-04-19		Airbus Defense and Space S.A.	CN-235, CN-235-100, CN-235-200, CN-235-300, and C-295
2016-04-20		The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series; 757-200, -200PF, -200CB, and -300 series; 767-200, -300, -300F, and -400ER series; 777-200, -200LR, -300, -300ER, and -777F series
2016-04-21	R 2008-26-07	The Boeing Company	DC-8-11, DC-8-12, DC-8-21, DC-8-31, DC-8-32, DC-8-33, DC-8-41, DC-8-42, DC-8-43, DC-8-51, DC-8-52, DC-8-53, DC-8-55, DC-8F-54, DC-8F-55, DC-8-61, DC-8-62, DC-8-63, DC-8-61F, DC-8-62F, DC-8-63F, DC-8-71, DC-8-72, DC-8-73, DC-8-71F, DC-8-72F, and DC-8-73F
2016-04-22		Fokker Services B.V.	F.27 Mark 200, 300, 400, 500, 600, and 700
2016-04-23		The Boeing Company	787-8
2016-04-24		The Boeing Company	757-200 series
<b>Biweekly 2016-06</b>			
2016-03-03	S 2013-11-13	Rolls-Royce plc	Viper Mk. 521, Viper Mk. 522, and Viper Mk. 601-22 turbojet engines
2016-03-07		Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343, A340-211, -212, -213, -311, -312, -313, -541, and -642
2016-04-13	S 2015-04-03	Rolls-Royce plc	RB211 Trent 768-60, 772-60, and 772B-60 turbofan engines
2016-04-16	R 2013-08-23	The Boeing Company	DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F (KC-10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, MD-10-30F, MD-11, and MD-11F
2016-05-02	R 2011-13-11 & R 2013-16-09	Airbus	A318-111, -112, -121, and -122, A319-111, -112, -113, -114, -115, -131, -132, and -133, A320-211, -212, -214, -231, -232, and -233, A321-111, -112, -131, -211, -212, -213, -231, and -232
2016-05-04		Dowty Propellers	R352/6-123-F/1, R352/6-123-F/2, and R410/6-123-F/35
2016-05-05		Airbus	A300 B2-1A, B2-1C, B2K-3C, B2-203, 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, A300 C4-605R Variant F, A310-203, -204, -221, -222, -304, -322, -324, and -325
2016-05-07		Engine Alliance	GP7270 turbofan engine
2016-05-12	R 2012-15-13	The Boeing Company	747-100B SUD, 747-300, 747-400, and 747-400D series, 747-200B series

## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S – Supersedes, R - Replaces			
2016-06-02		The Boeing Company	737-300, -400, and -500 series
2016-06-03		Airbus	A319-131, -132, and -133, A320-232 and -233, A321-131, -231, and -232
2016-06-04		The Boeing Company	737-300, -400, and -500 series
2016-06-05		The Boeing Company	777-200, -200LR, -300, -300ER, and -777F series
2016-06-06		Quest Aircraft Design, LLC	KODIAK 100
2016-06-07	R 2006-22-15	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 series
2016-06-08		The Boeing Company	787-8 and 787-9
<b>Biweekly 2016-07</b>			
2016-06-10		The Boeing Company	787-8
2016-06-11		Airbus Defense and Space S.A.	CN-235, CN-235-100, CN-235-200, and CN-235-300
2016-06-12		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343; A340-211, -212, -213, -311, -312, -313, -541, and -642
2016-06-13		Airbus	A319-111, -112, -113, -114, -115, -131, -132, and -133; A320-211, -212, -214, -231, -232, and -233; A321-111, -112, -131, -211, -212, -213, -231, and -232
2016-07-03		The Boeing Company	747-100, 747-100B, 747-100B SUD, 747-200B, 747-300, 747SR, and 747SP series
2016-07-05		The Boeing Company	747-8 series
2016-07-06		BAE Systems (Operations) Limited	BAe 146-100A, -200A, and -300A; Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2016-07-10		The Boeing Company	787-8 and 787-9
<b>Biweekly 2016-08</b>			
2016-06-14		General Electric Company	CF6-80E1
2016-07-02		Honeywell International Inc.	TFE731-4, -4R, -5AR, -5BR, and -5R
2016-07-04		Airbus	A318-111, -112, -121, and -122; A319-111, -112, -113, -114, -115, -131, -132, and -133; A320-211, -212, -214, -231, -232, and -233; A321-111, -112, -131, -211, -212, -213, -231, and -232
2016-07-07		The Boeing Company	757-200, -200PF, -200CB, and -300 series
2016-07-08		The Boeing Company	DC-9-83 (MD-83)
2016-07-09	R 2011-21-06	BAE SYSTEMS (Operations) Limited	4101
2016-07-12		Airbus	A318-111 and -112, A319-111, -112, -113, -114, and -115; A320-211, -212, and -214; A321-111, -112, -211, -212, and -213
2016-07-14		Airbus	A319-111, -112, -113, -114, -115, -131, -132, and -133; A320-211, -212, -214, -231, -232, and -233; A321-111, -112, -131, -211, -212, -213, -231, and -232
2016-07-15		Dassault Aviation	FALCON 7X
2016-07-16	R 2013-26-08	The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series
2016-07-17	R 97-20-07	Airbus	A300 B4-601, B4-603, B4-620, and B4-622; A300 B4-605R and B4-622R; A300 F4-605R and F4-622R; A300 C4-605R Variant F
2016-07-18		Airbus Defense and Space S.A.	CN-235-200 and CN-235-300
2016-07-20	R 95-18-08	Airbus	A300 B4-601, B4-603, B4-620, and B4-622; A300 B4-605R and B4-622R; A300 F4-605R and F4-622R; A300 C4-605R Variant F
2016-07-22		Airbus	A300 B4-601, B4-603, B4-620, and B4-622; A300 B4-605R and B4-622R; A300 F4-605R and F4-622R; A300 C4-605R Variant F; A310-203, -204, -221, -222, -304, -322, -324, and -325
2016-07-25		The Boeing Company	787-8
2016-07-28		The Boeing Company	DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), and DC-9-87 (MD-87); and MD-88
2016-07-30		Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343; A340-211, -212, -213, -311, -312, -313, -541, and -642
2016-07-31	R 2013-22-11	The Boeing Company	747-400 and -400D series

# LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S – Supersedes, R - Replaces			
2016-08-03		The Boeing Company	777-200, -200LR, -300, and -300ER series
2016-08-04		Airbus	A330-223F and -243F
2016-08-05		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)
2016-08-06		Airbus	A300 B4-601, B4-603, B4-620, and B4-622; A300 B4-605R and B4-622R; A300 F4-605R and F4-622R; A300 C4-605R Variant F
2016-08-07		Rolls-Royce plc	RB211-22B-02, RB211-22B (MOD 72-8700), RB211-524B-02, RB211-524B-B-02, RB211-524B2-19, RB211-524B2-B-19, RB211-524B3-02, RB211-524B4-02, RB211-524B4-D-02, RB211-524C2-19, RB211-524C2-B-19, RB211-524D4-19, RB211-524D4-B-19, RB211-524D4X-19, RB211-524D4X-B-19, RB211-524D4-39, RB211-524D4-B-39, RB211-524G2-19, RB211-524G3-19, RB211-524G2-T-19, RB211-524G3-T-19, RB211-524H-36, RB211-524H2-19, RB211-524H-T-36, and RB211-524H2-T-19
<b>Biweekly 2016-09</b>			
2016-08-01		Dassault Aviation	FALCON 7X airplanes
2016-08-09		Pratt & Whitney Division	PW4050, PW4052, PW4056, PW4060, PW4060A, PW4060C, PW4062, PW4062A, PW4152, PW4156, PW4156A, PW4158, PW4160, PW4460, PW4462, and PW4650 turbofan engines
2016-08-10		General Electric Company	CF6-80C2A1, CF6-80C2A2, CF6-80C2A3, CF6-80C2A5, CF6-80C2A5F, CF6-80C2A8, CF6-80C2B1, CF6-80C2B1F, CF6-80C2B1F1, CF6-80C2B1F2, CF6-80C2B2, CF6-80C2B2F, CF6-80C2B3F, CF6-80C2B4, CF6-80C2B4F, CF6-80C2B5F, CF6-80C2B6, CF6-80C2B6F, CF6-80C2B6FA, CF6-80C2B7F, CF6-80C2B8F, CF6-80C2D1F, CF6-80C2L1F, CF6-80C2K1F, CF6-80E1A1, CF6-80E1A2, CF6-80E1A3, CF6-80E1A4, and CF6-80E1A4/B turbofan engines
2016-08-11	R 2012-17-13	The Boeing Company	707 airplanes; 720 and 720B series airplanes
2016-08-12		The Boeing Company	787-8 and 787-9 airplanes
2016-08-14	R 2014-03-14	Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343; A340-211, -212, -213, -311, -312, -313, -541, and -642 airplanes
<b>Biweekly 2016-10</b>			
2016-07-23		Airbus	A318-111, -112, -121, and -122, A319-111, -112, -113, -114, -115, -131, -132, and -133, A320-211, -212, -214, -231, -232, and -233, A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes
2016-08-02		Airbus	A320-214, -232, and -233, A321-211 and -231 airplanes
2016-08-13	R 2004-19-11	Airbus	A320-211, -212, -214, -231, -232, and -233
2016-08-15	R 2014-17-51	Bombardier, Inc	CL-600-2B16
2016-09-01		The Boeing Company	777-200 and -300 series
2016-09-03		Dassault Aviation	FALCON 2000, FALCON 2000EX, MYSTERE-FALCON 900 and FALCON 900EX
2016-09-04		Bombardier, Inc	CL-600-2B19 (Regional Jet Series 100 & 440)
2016-09-05		The Boeing Company	717-200 airplanes
2016-09-06		Airbus	A318-111 and -112, A319-111, -112, -113, -114, and -115, A320-211, -212, and -214, A321-111, -112, -211, -212, and -213
2016-09-07		Airbus	A319-111, -112, -113, -114, -115, -131, -132, and -133, A320-211, -212, -214, -231, -232, and -233, A321-111, -112, -131, -211, -212, -213, -231, and -232
2016-09-08		The Boeing Company	747-8 series airplanes
2016-09-10	R 2007-10-10 R1	Airbus	A300 B4-600, B4-600R, and F4-600R series, A300 C4-605R Variant F airplanes (collectively called A300-600 series airplanes)

## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S – Supersedes, R - Replaces			
2016-09-11		Airbus	A330-201, -202, -203, -223, -223F, -243 -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343, A340-211, -212, -213, -311, -312, and -313
2016-09-12		The Boeing Company	787-8 and 787-9 airplanes
2016-09-13		The Boeing Company	737-300, -400, and -500 series
2016-10-02		The Boeing Company	777-200 and -300 series
<b>Biweekly 2016-11</b>			
2016-10-04		The Boeing Company	737-100, -200, -200C, -300, -400, and -500 series
2016-10-05		The Boeing Company	757-200, -200CB, -200PF, and -300
2016-10-06		Bombardier, Inc.	BD-700-1A10, BD-700-1A11
2016-10-07		Bombardier, Inc.	DHC-8-102, -103, -106, -201, -202, -301, -311, and -315
2016-10-08		Airbus	A330-201, -202, -203, -223, and -243, A330-223F and -243F, A330-301, -302, -303, -321, -322, -323, -341, -342, and -343, A340-211, -212, and -213, A340-311, -312, and -313, A340-541, A340-642
2016-10-09		The Boeing Company	787-8 and 787-9
2016-10-10	R 2014-20-01	Bombardier, Inc.	CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants)
2016-10-11	R 2015-03-06	Airbus	A330-201, -202, -203, -223, -223F, -243, -243F -301, -302, -303, -321, -322, -323, -341, -342, and -343, A340-211, -212, -213 -311, -312, -313, -541, and -642
2016-10-12		Fokker Services B.V.	F.28 Mark 0070 and 0100
2016-10-13		Airbus	A300 B4-601, B4-603, B4-620, and B4-622, A300 B4-605R and B4-622R, A300 F4-605R and F4-622R, A300 C4-605R Variant F, A310-203, -204, -221, -222, -304, -322, -324, and -325
2016-10-14		Bombardier, Inc.	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705), CL-600-2D24 (Regional Jet Series 900)
2016-10-16		Dassault Aviation	MYSTERE-FALCON 900, FALCON 900EX, FALCON 2000EX
2016-11-02		Bombardier, Inc.	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705), CL-600-2D24 (Regional Jet Series 900), CL-600-2E25 (Regional Jet Series 1000)
<b>Biweekly 2016-12</b>			
2016-10-15		Fokker Services B.V.	F.28 Mark 0070 and 0100
2016-11-01		Airbus	A330-201, -202, -203, -223, and -243; A330-223F and -243F; A330-301, -302, -303, -321, -322, -323, -341, -342, and -343; A340-541; and A340-642
2016-11-03		The Boeing Company	777-200, -200LR, -300, -300ER, and -777F series
2016-11-04	R 2011-23-05	The Boeing Company	737-300, -400, and -500 series
2016-11-05	R 99-16-01	Airbus	A300 B4-601, B4-603, B4-620, and B4-622; A300 B4-605R and B4-622R; A300 F4-605R; and A300 C4-605R Variant F
2016-11-06	R 2005-18-18	The Boeing Company	757-200, -200PF, -200CB, and -300 series
2016-11-07		The Boeing Company	777-200 and -300 series
2016-11-08	R 2001-12-18	Airbus Defense and Space S.A.	CN-235; CN-235-100 and -200
2016-11-15		Fokker Services B.V.	F28 Mark 0070 and 0100
2016-11-17		The Boeing Company	787-8
2016-11-18		The Boeing Company	787
2016-11-20		B/E Aerospace	Protective Breathing Equipment (PBE)
2016-11-22		Fokker Services B.V.	F.28 Mark 0070 and 0100
2016-12-03	R 2011-17-10	Fokker Services B.V.	F.28 Mark 1000
<b>Biweekly 2016-13</b>			
2016-11-14		Fokker Services B.V.	F.28 Mark 1000, 2000, 3000, and 4000 airplanes
2016-11-16		The Boeing Company	777-200 and -300 series airplanes
2016-11-19		Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343; A340-211, -212, -213, -311, -312, -313, -541, and -642 airplanes

## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S – Supersedes, R - Replaces			
2016-12-04		Airbus	A318-111, -112, -121, and -122; A319-111, -112, -113, -114, -115, -131, -132, and -133; A320-211, -212, -214, -231, -232, and -233; A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes
2016-12-05	R 2014-15-04	Saab AB, Saab Aeronautics	SAAB 2000 airplanes
2016-12-09	R 2016-09-11	Airbus	A330-201, -202, -203, -223, -223F, -243 -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343; A340-211, -212, -213, -311, -312, and -313 airplanes
2016-12-10	R 2016-09-07	Airbus	A318-111, -112, -121, and -122; A319-111, -112, -113, -114, -115, -131, -132, and -133; A320-211, -212, -214, -231, -232, and -233; A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes
2016-12-11	R 2008-05-18 R1	The Boeing Company	787-8 airplanes
2016-12-12		Fokker Services B.V.	F.27 Mark 050, 200, 300, 400, 500, 600, and 700 airplanes
2016-12-14		Embraer S.A.	ERJ 170-100 LR, -100 STD, -100 SE., and -100 SU; ERJ 170-200 LR, -200 SU, and -200 STD; ERJ 190-100 STD, -100 LR, -100 IGW, -200 STD, -200 LR, and -200 IGW airplanes
2016-12-15	R 2016-07-30	Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343; A340-211, -212, -213, -311, -312, -313, -541, and -642 airplanes
2016-13-01	R 2016-08-05	Bombardier, Inc.	CL-600-2C10 (Regional Jet Series 700, 701, & 702); CL-600-2D15 (Regional Jet Series 705); CL-600-2D24 (Regional Jet Series 900); CL-600-2E25 (Regional Jet Series 1000) airplanes
2016-13-02	R 2016-09-04	Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440) airplanes
2016-13-05		General Electric Company	GE90-76B, GE90-77B, GE90-85B, GE90-90B, and GE90-94B turbofan engines
<b>Biweekly 2016-14</b>			
2016-13-03	COR	The Boeing Company	767-200, -300, -300F, and -400ER series airplanes
2016-13-05		General Electric Company	GE90-76B, GE90-77B, GE90-85B, GE90-90B, and GE90-94B turbofan engines
2016-13-06		Saab AB, Saab Aeronautics	340A (SAAB/SF340A), SAAB 340B airplanes
2016-13-08		Airbus	A300 B2-1A, B2-1C, B2K-3C, B2-203, B4-2C, B4-103, and B4-203, B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, and C4-605R Variant F airplanes
2016-13-10	R 2012-12-04	The Boeing Company	737-300, -400, and -500 series
2016-13-11	R 2008-05-06	The Boeing Company	737-100, -200, -300, -400, and -500 series
2016-13-12		Rolls-Royce Deutschland GmbH	BR700-710A1-10, BR700-710A2-20, BR700-710C4-11 engines
2016-13-13		Beechcraft Corporation	BAe.125 series 1000A and 1000B, and Hawker 1000 airplanes
2016-13-14		Bombardier, Inc.	DHC-8-400, -401 and -402 airplanes
2016-13-16		The Boeing Company	737-600, -700, -700C, -800, -900, and 900ER series airplanes
2016-14-02	R 2012-18-12	Airbus	A318-111, -112, -121, and -122, A319-111, -112, -113, -114, -115, -131, -132, and -133, 320-211, -212, -214, -231, -232, and -233 airplanes
2016-14-03		Airbus	A319-111, -112, -113, -114, -115, -131, -132, and -133, A320-211, -212, -214, -231, -232, and -233, A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes
2016-14-04		The Boeing Company	787-8 series
<b>Biweekly 2016-15</b>			
2016-13-09		Bombardier, Inc	CL-600-2B16 (CL-604 Variant)
2016-13-15		Dassault Aviation	FALCON 7X
2016-14-01		Airbus	A330-223F and -243F; A330-201, -202, -203, -223, and -243; A330-301, -302, -303, -321, -322, -323, -341, -342, and -343; A340-211, -212, and -213; A340-311, -312, and -313; A340-541; A340-642
2016-14-07		Bombardier, Inc	CL-600-2B19 (Regional Jet Series 100 & 440); CL-600-2C10 (Regional Jet Series 700, 701, & 702); CL-600-2D15

## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S – Supersedes, R - Replaces			
2016-14-08	R 2015-10-03	Airbus	(Regional Jet Series 705); CL-600-2D24 (Regional Jet Series 900); CL-600-2E25 (Regional Jet Series 1000)
2016-14-09	R 2014-14-06	Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343; A340-211, -212, -213, -311, -312, and -313; A340-541 and -642
2016-15-01		Airbus	A318-111 and -112; A319-111, -112, -113, -114, and -115; A320-211, -212, and -214; A321-111, -112, -211, -212, and -213
			A300 B2-1A, B2-1C, B2K-3C, B2-203, 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; A300 C4-605R Variant F; A310-203, -204, -221, -222, -304, -322, -324, and -325
<b>Biweekly 2016-16</b>			
2016-14-01	COR	Airbus	A330-223F and -243F, A330-201, -202, -203, -223, and -243, A330-301, -302, -303, -321, -322, -323, -341, -342, and -343, A340-211, -212, and -213, A340-311, -312, and -313, A340-541, A340-642 airplanes
2016-14-10	S 2013-02-02	CFM International, S.A.	CFM56-3, CFM56-3B, and CFM56-3C turbofan engines
2016-15-03		Bombardier Inc.	BD-700-1A10 and BD-700-1A11
2016-15-04		The Boeing Company	757-200 and -200CB series
2016-15-05		Dassault Aviation	FALCON 900EX and FALCON 2000EX
2016-15-06		Bombardier, Inc.	BD-700-1A10 and BD-700-1A11
2016-15-07		Bombardier, Inc.	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705), CL-600-2D24 (Regional Jet Series 900), CL-600-2E25 (Regional Jet Series 1000)
2016-16-01		Airbus	A330-223F and -243F, A330-201, -202, -203, -223, and -243, A330-301, -302, -303, -321, -322, -323, -341, -342, and -343
2016-16-04		Fokker Services B.V.	F.28 Mark 1000, 2000, 3000, and 4000
2016-16-05		Fokker Services B.V.	F.28 Mark 1000, 2000, 3000, and 4000
2016-16-06		Airbus	A300 B4-603, A300 B4-605R, A300 B4-622R, A310-304, A310-324, and A310-325
<b>Biweekly 2016-17</b>			
2016-16-02		Airbus	A318-111, -112, -121, and -122; A319-111, -112, -113, -114, -115, -131, -132, and -133; A320-211, -212, -214, -231, -232, and -233; A321-111, -112, -131, -211, -212, -213, -231, and -232
2016-16-07	R 2007-21-14 R1	Airbus	A310-203, -204, -221, -222, -304, -322, -324, and -325
2016-16-08		Airbus	A330-201, -202, -203, -223, -243, -223F, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343; A340-211, -212, -213, -311, -312, and -313
2016-16-09	R 2011-10-01	Dassault Aviation	FALCON 7X
2016-16-10		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 series
2016-16-11	R 2010-10-13	BAE Systems (Operations) Limited	BAe 146-100A, -200A, and -300A series; Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2016-16-13	R 2016-13-10	The Boeing Company	737-300, -400, and -500 series
2016-16-14	R 2013-20-11	Airbus	A318-111, -112, -121, and -122; A319-111, -112, -113, -114, -115, -131, -132, and -133; A320-211, -212, -214, -231, -232, and -233; A321-111, -112, -131, -211, -212, -213, -231, and -232
2016-16-15		Bombardier, Inc.	DHC-8-400, -401, and -402
2016-17-02		Dassault Aviation	FALCON 900EX; FALCON 2000EX
2016-17-03`	R 2003-25-07 R 2005-13-39	Airbus	A318-111, -112, -121, and -122; A319-111, -112, -113, -114, -115, -131, -132, and -133; A320-211, -212, -214, -231, -232, and -233; A321-111, -112, -131, -211, -212, -213, -231, and -232

## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S – Supersedes, R - Replaces			
<b>Biweekly 2016-18</b>			
2016-17-01	S 2006-18-14	Rolls-Royce Deutschland Ltd & Co	Tay 650-15 and Tay 651-54
2016-17-06		The Boeing Company	767-200 and -300 series
2016-17-09		Bombardier, Inc.	CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900)
2016-17-10		The Boeing Company	777-200, 777-200LR, 777-300, 777-300ER, and 777F series
2016-17-11		The Boeing Company	787-8
2016-17-12		Airbus	A318-111, -112, -121, and -122; A319-111, -112, -113, -114, -115, -131, -132, and -133; A320-211, -212, -214, -231, -232, and -233; A321-111, -112, -131, -211, -212, -213, -231, and -232
2016-17-13		Bombardier, Inc.	CL-600-2C10 (Regional Jet Series 700, 701, & 702)
2016-17-15		Bombardier, Inc	CL-600-2B19 (Regional Jet Series 100 & 440)
2016-17-16		Bombardier, Inc	BD-700-1A10 and BD-700-1A11
2016-17-17		Airbus Defense and Space S.A.	CN-235, CN 235-200, and CN 235-300
2016-18-01		The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series
2016-18-02		The Boeing Company	777-200 and -300ER series
2016-18-03		Bombardier, Inc	CL-600-2B19 (Regional Jet Series 100 & 440)
2016-18-04	R 2013-24-12	The Boeing Company	747-8 and 747-8F
2016-18-10		International Aero Engines AG (IAE)	V2522-A5, V2524-A5, V2525-D5, V2527-A5, V2527E-A5, V2527M-A5, V2528-D5, V2530-A5, and V2533-A5
2016-16-01	COR	Airbus	A330-223F and -243F; A330-201, -202, -203, -223, and -243; A330-301, -302, -303, -321, -322, -323, -341, -342, and -343
<b>Biweekly 2016-19</b>			
2016-17-14		Saab AB, Saab Aeronautics	SAAB 2000 airplanes
2016-18-06		The Boeing Company	767-200, -300, and -400ER series
2016-18-08	R 90-11-05	Airbus	A300 B2-1C, B2K-3C, B2-203, B4-2C, B4-103, and B4-203; A300 B4-601, B4-603, B4-620, and B4-622; A300 B4-605R
2016-18-09		Airbus	A318-111, -112, -121, and -122, A319-111, -112, -113, -114, -115, -131, -132, and -133, A320-211, -212, -214, -231, -232, and -233
2016-18-11		Gulfstream Aerospace Corporation	G-1159, G-1159A, G-1159B, G-IV, GV, GIV-X, GV-SP
2016-18-12		Airbus	A300 B4-203 and A300 B4-2C
2016-18-13		Fokker Services B.V.	F28 Mark 0070 and 0100
2016-18-14		ATR–GIE Avions de Transport Régional	ATR42-500, ATR72-212A
2016-18-15		The Boeing Company	737-600, -700, -700C, -800, and -900 series
2016-19-06		Airbus	A330-201, -202, -203, -223, and -243, A330-301, -302, -303, -321, -322, -323, -341, -342, and -343, A340-211, -212, and -213, A340-311, -312, and -313
2016-19-07	R 2008-19-08	Dassault Aviation	Falcon 10
<b>Biweekly 2016-20</b>			
2016-18-07	R 2009-15-17	Airbus	A330-223F, -243F, -201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343; A340-211, -212, -213, -311, -312, and -313
2016-18-16		The Boeing Company	737-100, -200, -200C, -300, -400, and -500 series
2016-19-01		Fokker Services B.V.	F28 Mark 0070 and F28 Mark 0100
2016-19-02	R 2005-15-07	Airbus	A320-211, -212, and -231
2016-19-03		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 series
2016-19-04		The Boeing Company	787-8
2016-19-05		International Aero Engines AG	V2500-A1

# LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S – Supersedes, R - Replaces			
2016-19-09		General Electric Company	GE90-76B, GE90-77B, GE90-85B, GE90-90B, and GE90-94B
2016-19-10	R 2000-10-18	Airbus	A300 B2-1A, B2-1C, B2K-3C, B2-203, 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; A300 C4-605R Variant F; A310-203, -204, -221, -222, -304, -322, -324, and -325
2016-19-11		Bombardier, Inc.	DHC-8-400, -401, and -402
2016-20-05		Saab AB, Saab Aeronautics	SAAB 2000
2016-20-06		Gulfstream Aerospace Corporation	G-1159, G-1159A, G-1159B, and G-IV
<b>Biweekly 2016-21</b>			
2016-19-12		The Boeing Company	747-400, 747-400D, and 747-400F series
2016-19-17	R 2010-23-19	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)
2016-20-14		The Boeing Company	737-600, -700, -700C, -800, -900 and -900ER series
2016-20-15		General Electric Company	GENx-1B64/P2, -1B67/P2, -1B70/P2, -1B70C/P2, -1B70/75/P2, and -1B74/75/P2 turbofan engines
<b>Biweekly 2016-22</b>			
2016-19-13		Dassault Aviation	MYSTERE-FALCON 50, MYSTERE-FALCON 900, FALCON 900EX, FALCON 2000EX
2016-19-14		Airbus	A318-111, -112, -121, and -122; A319-111, -112, -113, -114, -115, -131, -132, and -133; A320-211, -212, -214, -231, -232, and -233; A321-111, -112, -131, -211, -212, -213, -231, and -232
2016-20-02		The Boeing Company	737-300, -400, and -500 series
2016-20-03		The Boeing Company	767-200, -300, and -400ER series
2016-20-08	R 95-21-09	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, and B4-622R; A300 F4-605R; A300 F4-622R; A300 C4-605R Variant F
2016-20-10		Airbus	A330-223F and -243F; A330-201, -202, -203, -223, and -243; A330-301, -302, -303, -321, -322, -323, -341, -342, and -343; A340-211, -212, and -213; A340-311, -312, and -313; A340-541 and A340-642
2016-20-12	R 2012-20-07	Airbus	A318-111, -112, -121, and -122; A319-111, -112, -113, -114, -115, -131, -132, and -133; A320-211, -212, -214, -231, -232, and -233; A321-111, -112, -131, -211, -212, -213, -231, and -232
2016-20-13		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343; A340-211, -212, -213, -311, -312, and -313
2016-22-03		Bombardier, Inc.	DHC-8-400, -401, and -402
<b>Biweekly 2016-23</b>			
2016-22-05		Pratt & Whitney Division	PW4164, PW4168, PW4168A, PW4164-1D, PW4168-1D, PW4168A-1D, and PW4170
2016-22-09	R 2006-20-11	The Boeing Company	757-200, -200CB, and -200PF series
2016-22-10		Turbomeca S.A.	Arriel 1, 1A, 1A1, 1A2, 1B, 1B2, 1C, 1C1, 1C2, 1D, 1D1, 1E, 1E2, 1K1, 1S, and 1S1 turboshaft engines
2016-22-11	R 2013-02-06	Engine Alliance	GP7270 and GP7277 turbofan engines
2016-22-14		The Boeing Company	737-600, 737-700, 737-700C, 737-800, 737-900, and 737-900ER series
2016-22-15	R 2012-24-06	Saab AB, Saab Aeronautics	340A (SAAB/SF340A) and SAAB 340B
2016-22-18		The Boeing Company	MD-90-30 airplanes
2016-23-01	R 2010-04-03	Airbus	A310-203, -204, -221, -222, -304, -322, -324, and -325
<b>Biweekly 2016-24</b>			
2016-21-05		The Boeing Company	777-200, -200LR, -300, and -300ER series
2016-21-06	R 2015-02-23	Bombardier, Inc	CL-600-1A11 (CL-600), CL-600-2A12 (CL-601), CL-600-2B16 (CL-601-3A and CL-601-3R Variants)

## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S – Supersedes, R - Replaces			
2016-21-08	R 2013-25-08	Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343, A340-211, -212, -213, -311, -312, and -313
2016-22-04		Gulfstream Aerospace Corporation	GV, GV-SP
2016-22-13		The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series
2016-22-16		Bombardier, Inc	CL-600-2C10 (Regional Jet Series 700, 701, and 702), CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900), CL-600-2E25 (Regional Jet Series 1000)
2016-22-17		The Boeing Company	787-8
2016-23-02	R 2006-19-12	The Boeing Company	777-200, -200LR, -300, -300ER, and 777F series
2016-23-07	R 2013-02-08	Bombardier, Inc	CL-600-2B19 (Regional Jet Series 100 & 440)
2016-23-08		The Boeing Company	737-400 series
2016-24-01		Bombardier, Inc	DHC-8-102, -103, and -106, DHC-8-201 and -202, DHC-8-301, -311, and -315
2016-24-02		The Boeing Company	747-8 and 747-8F series
<b>Biweekly 2016-25</b>			
2016-19-16		The Boeing Company	707-300, 707-300B, and 707-300C series; 727C, 727-100C, and 727-200F series
2016-20-07		Fokker Services B.V.	F28 Mark 0070 and Mark 0100; F28 Mark 1000, 2000, 3000, and 4000
2016-20-09		Bombardier, Inc.	CL-600-2A12 (CL-601 Variant); CL-600-2B16 (CL-601-3A and CL-601-3R Variants); CL-600-2B16 (CL-604 Variant)
2016-20-11	R 2014-12-06	Airbus	A300 B4-601, B4-603, B4-620, and B4-622; A300 B4-605R and B4-622R; A300 F4-605R and F4-622R; A300 C4-605R Variant F; A310-203, -204, -221, -222, -304, -322, -324, and -325
2016-24-03		Bombardier, Inc.	DHC-8-400, -401, and -402
2016-24-05		Fokker Services B.V.	F28 Mark 0070 and 0100
2016-24-06		Bombardier, Inc.	DHC-8-102, -103, -106, -201, -202, -301, -311, and -315
2016-24-07		Dassault Aviation	FALCON 7X
2016-24-08		Rolls-Royce plc	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
2016-24-09		The Boeing Company	787-8 and 787-9
2016-25-12		M7 Aerospace LLC	SA226-AT, SA226-T, SA226-T(B), SA226-TC, SA227-AC (C-26A), SA227-AT, SA227-BC (C-26A), SA227-CC, SA227-DC (C-26B), and SA227-TT
<b>Biweekly 2016-26</b>			
2016-24-04		Bombardier, Inc.	DHC-8-400, -401, and -402
2016-25-02		The Boeing Company	787-8 series
2016-25-04		Fokker Services B.V.	F28 Mark 0070 and 0100
2016-25-05	2006-10-16	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 series
2016-25-06		The Boeing Company	DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), and DC-9-87 (MD-87) and MD-88
2016-25-08	R 2014-13-12	Airbus	A318-111, -112, -121, and -122, A319-111, -112, -113, -114, -115, -131, -132, and -133, A320-211, -212, -214, -231, -232, -233, and -271, A321-111, -112, -131, -211, -212, -213, -231, and -232
2016-25-09	R 2012-22-02	The Boeing Company	747-400, -400D, and -400F series
2016-25-10		Rolls-Royce plc	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 engines
2016-25-11		International Aero Engines AG	V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5, V2525-D5, V2528-D5, and V2531-E5 turbofan engines
2016-25-15	R 2011-17-05	Airbus	A300 B2-1C, A300 B2-203, A300 B2K-3C, A300-B4-103,

## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S – Supersedes, R - Replaces			
2016-25-16		Bombardier, Inc.	A300 B4-203, and A300 B4-2C
2016-25-17		Saab AB, Saab Aeronautics (formerly known as Saab AB, Saab Aerosystems)	CL-600-2E25 (Regional Jet Series 1000) SAAB 2000
2016-25-18		Bombardier Inc.	BD-700-1A10 and BD-700-1A11
2016-25-21		The Boeing Company	787-8
2016-25-22	R 2016-19-08	Viking Air Limited	DHC-2 Mk. I, DHC-2 Mk. II, and DHC-2 Mk. III
2016-25-23		Airbus	A319-115 and -132, A320-214, -232, and -233
2016-25-24		Airbus	A319-111, A319-112, A319-113, A319-114, A319-115, A319-131, A319-132, A319-133, A320-211, A320-212, A320-214, A320-231, A320-232, A320-233, A320-251N, A320-271N, A321-111, A321-112, A321-131, A321-211, A321-212, A321-213, A321-231, and A321-232



---

**2016-24-04 Bombardier, Inc:** Amendment 39-18721; Docket No. FAA-2016-8178; Directorate Identifier 2015-NM-197-AD.

**(a) Effective Date**

This AD is effective January 17, 2017.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes, certificated in any category, serial numbers 4156 through 4453 inclusive, 4456, and 4457.

**(d) Subject**

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

**(e) Reason**

This AD was prompted by a determination by the manufacturer that shims might not have been installed between certain longerons and longeron joint fittings. We are issuing this AD to detect and correct missing shims between the longerons and longeron joint fittings, which could result in a gapping condition and lead to stress corrosion cracking of the longeron joint fittings, and could adversely affect the structural integrity of the wing-to-fuselage attachment joints.

**(f) Compliance**

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

**(g) Inspection of the External Surface of the Fuselage Skin Panels**

At the time specified in paragraph (g)(1) or (g)(2) of this AD, as applicable, do a detailed visual inspection of the external surface of the fuselage skin panel for loose or working fasteners (fasteners that show signs of wear, fatigue, or corrosion) and structural damage, in accordance with paragraph 3.B. of the Accomplishment Instructions of Bombardier Service Bulletin 84-53-65, Revision A, dated February 22, 2016.

(1) For airplanes that have accumulated less than 10,000 total flight hours, or less than 5 years in service since new, as of the effective date of this AD: Prior to accumulating 12,000 total flight hours or 6 years in service since new, whichever occurs first.

(2) For airplanes that have accumulated 10,000 total flight hours or more, or 5 years or more in service since new, as of the effective date of this AD: Within 2,000 flight hours or 12 months after the effective date of this AD, whichever occurs first.

**(h) Corrective Actions**

If any loose or working fastener or any structural damage is found during any inspection required by this AD: Before further flight, repair using a method approved by the Manager, New York Aircraft Certification Office (ACO), FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO); and thereafter do the inspections required by paragraph (i) of this AD. Accomplishment of a repair in accordance with a method approved by the Manager, New York ACO, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO terminates the repetitive inspections required by paragraph (i) of this AD for the repaired area only.

**(i) Repetitive Detailed Visual Inspections**

Repeat the detailed visual inspection required by the introductory text to paragraph (g) of this AD at intervals not to exceed 12 months or 2,000 flight cycles, whichever occurs first after accomplishment of the most recent inspection, until the actions required by the introductory text to paragraph (j) of this AD are done.

**(j) Inspection for Missing Shims**

At the time specified in paragraph (j)(1) or (j)(2) of this AD, as applicable, do a detailed visual inspection of the longeron joint fittings for the existence of shims, in accordance with paragraph 3.C. of the Accomplishment Instructions of Bombardier Service Bulletin 84-53-65, Revision A, dated February 22, 2016.

(1) For airplanes that have accumulated less than 10,000 total flight hours, or less than 5 years in service since new, as of the effective date of this AD: Prior to accumulating 18,000 total flight hours or 9 years in service since new, whichever occurs first.

(2) For airplanes that have accumulated 10,000 total flight hours or more, or 5 years or more in service since new, as of the effective date of this AD: Within 8,000 flight hours or 4 years after the effective date of this AD, whichever occurs first; but not to exceed 30,000 total flight hours or 144 months in service since new, whichever occurs first.

**(k) Airplanes With Installed Shims: No Further Action Required**

If the inspection required by the introductory text to paragraph (j) of this AD reveals that shims are installed in the longeron joint fittings, no further action is required by this AD.

**(l) Airplanes With Missing Shims: High Frequency Eddy Current (HFEC) Inspections and Corrective Actions**

If the inspection required by the introductory text to paragraph (j) of this AD reveals that any shim is missing from the longeron joint fittings: Before further flight, do a high frequency eddy current (HFEC) inspection of the longeron and the longeron joint fittings for any cracking, in accordance with paragraph 3.D. of the Accomplishment Instructions of Bombardier Service Bulletin 84-53-65, Revision A, dated February 22, 2016.

(1) If any crack is found, or if any indication with an amplitude of 50% or more of the calibration signal is found, do the actions specified in paragraphs (l)(1)(i) and (l)(1)(ii) of this AD.

(i) Before further flight: Replace the longeron joint fittings, in accordance with paragraph 3.E. of the Accomplishment Instructions of Bombardier Service Bulletin 84-53-65, Revision A, dated February 22, 2016.

(ii) At the applicable time specified in paragraph (l)(1)(ii)(A) or (l)(1)(ii)(B) of this AD: Report the inspection results to Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard,

Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd.qseries@aero.bombardier.com; Internet <http://www.bombardier.com>.

(A) If the inspection was done on or after the effective date of this AD: Report within 30 days after that inspection.

(B) If the inspection was done before the effective date of this AD: Report within 30 days after the effective date of this AD.

(2) If no crack or indication with an amplitude of 50% or more of the calibration signal is found: Repeat the HFEC inspection required by the introductory text to paragraph (l) of this AD at intervals not to exceed 12,000 flight hours or 6 years, whichever occurs first after accomplishment of the most recent HFEC inspection, in accordance with paragraph 3.D. of the Accomplishment Instructions of Bombardier Service Bulletin 84-53-65, Revision A, dated February 22, 2016.

#### **(m) Terminating Action for Repetitive HFEC Inspections**

Replacement of the longeron joint fittings, in accordance with paragraph 3.E. of the Accomplishment Instructions of Bombardier Service Bulletin 84-53-65, Revision A, dated February 22, 2016, constitutes terminating action for the repetitive HFEC inspections required by paragraph (l)(2) of this AD.

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

This paragraph provides credit for actions required by paragraphs (g), (i), (j), (k), (l), and (m) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 84-53-65, dated February 27, 2015.

#### **(o) Other FAA AD Provisions**

The following provisions also apply to this AD:

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

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO. If approved by the DAO, the approval must include the DAO-authorized signature.

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

**(p) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2015-22, dated August 3, 2015, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-8178.

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

**(q) Material Incorporated by Reference**

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

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

(i) Bombardier Service Bulletin 84-53-65, Revision A, dated February 22, 2016.

(ii) Reserved.

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

(4) You may view this 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 November 17, 2016.

Phil Forde,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



---

**2016-25-02 The Boeing Company:** Amendment 39-18725; Docket No. FAA-2015-3142; Directorate Identifier 2015-NM-003-AD.

**(a) Effective Date**

This AD is effective January 20, 2017.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to The Boeing Company Model 787-8 series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin B787-81205-SB270026-00, Issue 002, dated June 13, 2016.

**(d) Subject**

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

**(e) Unsafe Condition**

This AD was prompted by reports of the accumulation of very fine particle deposits in the power control unit (PCU) electro-hydraulic servo valves (EHSV) used in the flight control system; this accumulation caused degraded performance due to reduced EHSV internal hydraulic supply pressures, resulting in the display of PCU fault status messages from the engine indication and crew alerting system (EICAS). We are issuing this AD to prevent failure of flight control hydraulic PCUs, which could lead to reduced controllability of the airplane.

**(f) Compliance**

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

**(g) Marker Installation**

Within 36 months after the effective date of this AD, install markers to allow servicing of hydraulic systems with only HyJet V hydraulic fluid, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin B787-81205-SB270026-00, Issue 002, dated June 13, 2016.

Note 1 to paragraph (g) of this AD: Boeing Alert Service Bulletin B787-81205-SB270026-00, Issue 002, dated June 13, 2016, refers to Boeing Service Bulletin B787-81205-SB290022-00, Issue 001, dated September 4, 2014, as an additional source of guidance for installing markers to allow servicing of hydraulic systems with only HyJet V hydraulic fluid.

Note 2 to paragraph (g) of this AD: Task 1, Figure 1, and Task 2, Figure 1, of Boeing Service Bulletin B787-81205-SB290022-00, Issue 001, dated September 4, 2014, identify P/N 710Z7290-9##ALT1 for the left and right engine diagonal braces; however, the correct P/N is 710Z7290-9 with no ##ALT suffix.

#### **(h) Fluid Tests of the Left, Right, and Center Hydraulic Systems**

For airplanes identified in Boeing Alert Service Bulletin B787-81205-SB270026-00, Issue 002, dated June 13, 2016, as Group 1, Configuration 2, Group 2: Within 36 months after the effective date of this AD, do hydraulic fluid tests of the left, right, and center hydraulic systems, replace the hydraulic system fluid, if necessary, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin B787-81205-SB270026-00, Issue 002, dated June 13, 2016. Do all applicable related investigative and corrective actions within 36 months after the effective date of this AD.

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

This paragraph provides credit for the actions required by paragraphs (g) and (h) of this AD, if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin B787-81205-SB270026-00, Issue 001, dated November 25, 2014.

#### **(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 paragraph (k)(1) 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) For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (j)(3)(i) and (j)(3)(ii) apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. If a step or sub-step is labeled "RC Exempt," then the RC requirement is removed from that step or sub-step. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

(4) 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.

**(k) Related Information**

(1) For more information about this AD, contact Fnu Winarto, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle ACO, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6659; fax: 425-917-6590; email: fnu.winarto@faa.gov.

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

**(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) Boeing Alert Service Bulletin B787-81205-SB270026-00, Issue 002, dated June 13, 2016.

(ii) Reserved.

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>.

(4) You may view this 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 November 25, 2016.

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



---

**2016-25-04 Fokker Services B.V.:** Amendment 39-18730; Docket No. FAA-2015-7530; Directorate Identifier 2014-NM-257-AD.

**(a) Effective Date**

This AD is effective January 17, 2017.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all Fokker Services B.V. Model F28 Mark 0070 and 0100 airplanes, certificated in any category.

**(d) Subject**

Air Transport Association (ATA) of America Code 57, Wings.

**(e) Reason**

This AD was prompted by report of cracking in the secondary structure of the wing at station 8700. We are issuing this AD to detect and correct cracking that could lead to failure of the affected rib and consequent reduced control of the airplane.

**(f) Compliance**

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

**(g) Inspection**

Within 12 months after the effective date of this AD: Do a detailed inspection for cracking of the trailing edge rib at wing station 8700, in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-57-048, dated October 27, 2014. If any crack is found, before further flight, repair using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Fokker Services B.V.'s EASA Design Organization Approval (DOA).

**(h) 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: Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the EASA; or Fokker B.V. Service's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

#### **(i) Related Information**

Refer to Mandatory Continuing Airworthiness Information (MCAI) European AD 2014-0271, dated December 12, 2014, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-7530.

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

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

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

(i) Fokker Service Bulletin SBF100-57-048, dated October 27, 2014.

(ii) Reserved.

(3) For service information identified in this AD, contact Fokker Services B.V., Technical Services Dept., P.O. Box 1357, 2130 EL Hoofddorp, the Netherlands; telephone +31 (0)88-6280-350; fax +31 (0)88-6280-111; email [technicalservices@fokker.com](mailto:technicalservices@fokker.com); Internet <http://www.myfokkerfleet.com>.

(4) You may view this 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 November 25, 2016.

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



---

**2016-25-05 The Boeing Company:** Amendment 39-18731; Docket No. FAA-2015-5816; Directorate Identifier 2015-NM-029-AD.

**(a) Effective Date**

This AD is effective January 25, 2017.

**(b) Affected ADs**

This AD affects AD 2006-10-16, Amendment 39-14600 (71 FR 28570, May 17, 2006) ("AD 2006-10-16").

**(c) Applicability**

This AD applies to all 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.

**(d) Subject**

Air Transport Association (ATA) of America Code 55, Stabilizers.

**(e) Unsafe Condition**

This AD was prompted by reports of cracking found in the splice plates, hinge fittings, terminal fittings, the upper skin of the outboard and center sections, upper chord, and rear spar webs before reaching the inspection interval specified in AD 2006-10-16. Cracked and fractured Maraging steel fasteners were also found. We are issuing this AD to detect and correct this cracking, which could lead to reduced structural capability of the outboard and center sections of the horizontal stabilizer and could result in loss of control of the airplane.

**(f) Compliance**

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

**(g) Repetitive Inspections/Investigative and Corrective Actions**

At the applicable time specified in paragraph 1.E., "Compliance," of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015, except as required by paragraphs (h)(1) and (h)(2) of this AD: Do the applicable actions specified in paragraphs (g)(1), (g)(2), (g)(3), and (g)(4) of this AD, and all applicable related investigative and corrective actions, in accordance with the applicable part of the Accomplishment Instructions of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015, except as required by paragraph (h)(3) of this AD. Do all applicable related investigative and corrective actions before further flight. Repeat the applicable inspections specified in paragraphs (g)(1), (g)(2), (g)(3), and (g)(4) of this AD at the applicable times specified in

paragraph 1.E., "Compliance," of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015.

(1) For Group 1 through 3 airplanes identified in Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015: Do non-destructive test (NDT) inspections (ultrasonic, high frequency eddy current, and low frequency eddy current inspections) or open-hole NDT inspections (high frequency eddy current inspections) of Zone B for cracking, in accordance with Part 3 or Part 4 of the Accomplishment Instructions of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015, as applicable. Accomplishing a Zone B inspection required by this paragraph terminates the inspections required by paragraph (g) of AD 2006-10-16 for the inspected area only.

(2) For Group 4 through 6 airplanes identified in Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015: Do open-hole NDT inspections (high frequency eddy current inspections) of Zone B for cracking, in accordance with Part 4 of the Accomplishment Instructions of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015. Accomplishing a Zone B inspection required by this paragraph terminates the inspections required by paragraph (i) of AD 2006-10-16 for the inspected area only.

(3) For Group 7 through 9 airplanes identified in Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015: Do inspections of Zone A (detailed or high frequency eddy current inspections) and Zone B (open-hole high frequency eddy current inspections) for cracking, in accordance with Part 1, Part 2, or Part 4 of the Accomplishment Instructions of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015, as applicable. Accomplishing Zone A and Zone B inspections required by this paragraph terminates the inspections required by paragraphs (f), (i), and (l) of AD 2006-10-16 for the inspected area only.

(4) For Group 1 through 3 airplanes identified in Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015: Do an inspection of Zone C Maraging or H-11 steel fasteners to determine whether fasteners are magnetic, in accordance with Part 6 of the Accomplishment Instructions of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015.

#### **(h) Exceptions to Service Bulletin Specifications**

(1) Where Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015, specifies a compliance time "after the Revision 2 date of this service bulletin," this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) The Condition column of Table 1 of paragraph 1.E., "Compliance," of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015, refers to airplanes with certain total flight cycles and total flight hours. This AD, however, applies to the airplanes with the specified total flight cycles and total flight hours as of the effective date of this AD.

(3) Where Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015, specifies to contact Boeing for repair instructions: Before further flight, repair using a method approved in accordance with the procedures specified in paragraph (l) of this AD.

#### **(i) Optional Terminating Action**

(1) For Group 1 through 3 airplanes identified in Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015: Accomplishing the Zone B modification, including all applicable related investigative and corrective actions, specified in Part 7 of the Accomplishment Instructions of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015, except as required by paragraph (h)(3) of this AD, terminates the repetitive inspections specified in paragraphs (i)(1)(i) through (i)(1)(iv) of this AD for the modified area only.

(i) Inspections required by paragraph (g)(1) of this AD for Zone B, as specified in Part 3 and Part 4 of the Accomplishment Instructions of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015.

(ii) Inspections required by paragraph (g)(4) of this AD for Zone C, as specified in Part 6 of the Accomplishment Instructions of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015.

(iii) Inspections required by paragraph (g) of AD 2006-10-16 for Zone B, as specified in Part 3 of the Accomplishment Instructions of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015.

(iv) Inspections required by paragraph (k) of AD 2006-10-16 for Zone C, as specified in Part 5 of the Accomplishment Instructions of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015.

(2) For Group 1 through 3 airplanes identified in Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015: Accomplishing the Zone B open-hole NDT inspection, repairing any cracking as applicable, and replacing fasteners as specified in Part 4 of the Accomplishment Instructions of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015, terminates the actions specified in paragraphs (i)(2)(i) and (i)(2)(ii) of this AD for the inspected area only.

(i) The inspections required by paragraph (g)(4) of this AD for Zone C, as specified in Part 6 of the Accomplishment Instructions of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015.

(ii) The repetitive inspections required by paragraph (k) of AD 2006-10-16 for Zone C, as specified in Part 5 of the Accomplishment Instructions of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015.

(3) For Group 4 through 9 airplanes identified in Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015: Accomplishing the Zone B modification, including all applicable related investigative and corrective actions, specified in Part 7 of the Accomplishment Instructions of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015, except as required by paragraph (h)(3) of this AD, terminates the actions specified in paragraphs (i)(3)(i) and (i)(3)(ii) of this AD for the modified area only.

(i) The repetitive inspections required by paragraph (g)(2) or (g)(3) of this AD, as applicable, only for Zone B, as specified in Part 4 of the Accomplishment Instructions of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015.

(ii) The repetitive inspections required by paragraph (i) of AD 2006-10-16 for Zone B, as specified in Part 4 of the Accomplishment Instructions of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015.

#### **(j) Repetitive Post-Modification Inspections and Corrective Actions**

At the applicable time specified in paragraph 1.E., "Compliance," of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015: Do the applicable inspections specified in paragraphs (j)(1) and (j)(2) of this AD, and all applicable corrective actions, in accordance with Part 8 of the Accomplishment Instructions of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015, except as required by paragraph (h)(3) of this AD. Do all applicable corrective actions before further flight. Repeat the applicable inspections at the applicable times specified in paragraph 1.E., "Compliance," of Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015.

(1) For Group 1 through 3 airplanes identified in Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015, on which the Zone B modification specified in paragraph (i)(1) of this AD is done: Do non-destructive test (NDT) inspections (ultrasonic, high frequency eddy current, and low frequency eddy current inspections) or open-hole NDT inspections (high frequency eddy current inspections) of Zone B for cracking.

(2) For Group 4 through 9 airplanes identified in Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015, on which the Zone B modification specified in paragraph (i)(3) of this AD is done: Do open-hole NDT inspections (high frequency eddy current inspections) of Zone B for cracking.

### **(k) Parts Installation Prohibition**

As of the effective date of this AD, no person may install any Maraging or H-11 steel fasteners in the locations specified in this AD. Where Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015, specifies to install H-11 bolts (kept fasteners), this AD requires installation of Inconel bolts.

### **(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 paragraph (m) 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 2006-10-16, are approved as AMOCs for the corresponding provisions of paragraph (g) of this AD, except for approved AMOCs that allow installation of Maraging or H-11 steel fasteners.

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

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

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

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

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

(i) Boeing Service Bulletin 747-55A2050, Revision 2, dated January 23, 2015.

(ii) Reserved.

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

(4) You may view this 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 November 25, 2016.  
John P. Piccola, Jr.,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



---

**2016-25-06 The Boeing Company:** Amendment 39-18732; Docket No. FAA-2016-8845; Directorate Identifier 2016-NM-094-AD.

**(a) Effective Date**

This AD is effective January 25, 2017.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all The Boeing Company Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), and DC-9-87 (MD-87) airplanes; and Model MD-88 airplanes; certificated in any category.

**(d) Subject**

Air Transport Association (ATA) of America Code 55, Stabilizers.

**(e) Unsafe Condition**

This AD was prompted by a report of fatigue cracking in a Model MD-88 rear spar lower cap of the horizontal stabilizer. We are issuing this AD to detect and correct fatigue cracking in the rear spar lower caps of the horizontal stabilizer, which, paired with cracking in adjacent areas, could adversely affect the structural integrity of the airplane.

**(f) Compliance**

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

**(g) Repetitive Inspections and Corrective Actions**

Except as specified in paragraph (i)(1) of this AD, at the applicable time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin MD80-55A072, dated April 8, 2016: Do an open hole high frequency eddy current inspection (HFEC) or surface HFEC inspection for cracking of the rear spar lower caps of the horizontal stabilizer, and do all applicable corrective actions; in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin MD80-55A072, dated April 8, 2016, except as specified in paragraph (i)(2) of this AD. Do all applicable corrective actions before further flight. Repeat the inspection thereafter at the applicable interval specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin MD80-55A072, dated April 8, 2016, until accomplishment of the actions provided by paragraph (h) of this AD.

**(h) Optional Terminating Action**

Accomplishment of the fatigue life enhancement modification in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin MD80-55A072, dated April 8, 2016, terminates the repetitive inspections required by paragraph (g) of this AD.

**(i) Service Information Exceptions**

(1) Where paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin MD80-55A072, dated April 8, 2016, specifies a compliance time "after the original issue date of this service bulletin," this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) If any cracking is found during any inspection required by this AD, and Boeing Alert Service Bulletin MD80-55A072, dated April 8, 2016, specifies to contact Boeing for appropriate action: Before further flight, repair the cracking using a method approved in accordance with the procedures specified in paragraph (k) of this AD.

**(j) Post-Modification and Post-Repair Actions**

For airplanes on which any modification or repair specified in (g) or (h) of this AD has been done: At the applicable time and intervals specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin MD80-55A072, dated April 8, 2016, do all applicable post-modification and post-repair inspections and all applicable corrective actions; in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin MD80-55A072, dated April 8, 2016; except as specified in paragraph (i)(2) of this AD. All applicable corrective actions must be done before further flight.

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

(1) The Manager, Los Angeles 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 paragraph (l) of this AD. Information may be emailed to: 9-ANM-LAACO-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, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Los Angeles ACO, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) Except as required by paragraph (i)(2) of this AD: For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (k)(4)(i) and (k)(4)(ii) of this AD apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. If a step or sub-step is labeled "RC Exempt," then the RC requirement is removed from that step or sub-step. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided

the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

### **(l) Related Information**

For more information about this AD, contact Haytham Alaidy, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles ACO, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5224; fax: 562-627-5210; email: haytham.alaidy@faa.gov.

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

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

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

(i) Boeing Alert Service Bulletin MD80-55A072, dated April 8, 2016.

(ii) Reserved.

(3) For Boeing service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone: 562-797-1717; Internet: <https://www.myboeingfleet.com>.

(4) You may view this 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 November 25, 2016.

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



---

**2016-25-08 Airbus:** Amendment 39-18734; Docket No. FAA-2016-4228; Directorate Identifier 2015-NM-107-AD.

**(a) Effective Date**

This AD is effective January 20, 2017.

**(b) Affected ADs**

This AD replaces AD 2014-13-12, Amendment 39-17888 (79 FR 45317, August 5, 2014) ("AD 2014-13-12").

**(c) Applicability**

This AD applies to the Airbus airplanes identified in paragraphs (c)(1) through (c)(4) of this AD, certificated in any category, all manufacturer serial numbers.

- (1) Model A318-111, -112, -121, and -122 airplanes.
- (2) Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes.
- (3) Model A320-211, -212, -214, -231, -232, -233, and -271 airplanes.
- (4) Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes.

**(d) Subject**

Air Transport Association (ATA) of America Code 35, Oxygen.

**(e) Reason**

This AD was prompted by reports of silicon particles inside the oxygen generator manifolds, which had chafed from the mask hoses during installation onto the generator outlets. We are issuing this AD to detect and correct nonserviceable oxygen generator manifolds, which could reduce or block the oxygen supply and result in injury to passengers when oxygen supply is needed.

**(f) Compliance**

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

**(g) Retained Part Number and Serial Number Identification, With No Changes**

This paragraph restates the requirements of paragraph (g) of AD 2014-13-12, with no changes. Within 5,000 flight cycles, or 7,500 flight hours, or 24 months, whichever occurs first after September 9, 2014 (the effective date of AD 2014-13-12), identify the part number and serial number of each passenger oxygen container. A review of airplane maintenance records is acceptable in lieu of this identification if the part number and serial number of the oxygen container can be conclusively determined from that review.

**(h) Retained Replacement, Check, and Repair, With Paragraph (h)(5) and Note 1 to Paragraph (h) of AD 2014-13-12 Removed, and Revised Repair Instructions**

This paragraph restates the requirements of paragraph (h) of AD 2014-13-12, with paragraph (h)(5) and Note 1 to paragraph (h) of AD 2014-13-12 removed, and revised repair instructions. If the part number of the passenger oxygen container is listed in paragraph (h)(1) of this AD and the serial number of the passenger oxygen container is listed in paragraph (h)(2) of this AD: Within the compliance time specified in paragraph (g) of this AD, do the actions specified in paragraphs (h)(3) and (h)(4) of this AD, except as provided by paragraphs (i)(1) through (i)(7) of this AD.

(1) (Type I: 15 and 22 minutes) 12C15Lxxxxx0100, 12C15Rxxxxx0100, 13C15Lxxxxx0100, 13C15Rxxxxx0100, 14C15Lxxxxx0100, 14C15Rxxxxx0100, 12C22Lxxxxx0100, 12C22Rxxxxx0100, 13C22Lxxxxx0100, 13C22Rxxxxx0100, 14C22Lxxxxx0100, and 14C22Rxxxxx0100; and (Type II: 15 and 22 minutes) 22C15Lxxxxx0100, 22C15Rxxxxx0100, 22C22Lxxxxx0100, and 22C22Rxxxxx0100.

(2) ARBA-0000 to ARBA-9999 inclusive, ARBB-0000 to ARBB-9999 inclusive, ARBC-0000 to ARBC-9999 inclusive, ARBD-0000 to ARBD-9999 inclusive, ARBE-0000 to ARBE-9999 inclusive, BEBF-0000 to BEBF-9999 inclusive, BEBH-0000 to BEBH-9999 inclusive, BEBK-0000 to BEBK-9999 inclusive, BEBL-0000 to BEBL-9999 inclusive, and BEBM-0000 to BEBM-9999 inclusive.

(3) Replace the oxygen generator manifold of any affected oxygen passenger container with a serviceable manifold, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-35A1047, dated March 29, 2011.

(4) Do an operational check of the manual mask release, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-35A1047, dated March 29, 2011. If the operational check fails, before further flight, repair the manual mask release, using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA).

**(i) Retained Exceptions, With No Changes**

This paragraph restates the provisions of paragraph (i) of AD 2014-13-12, with no changes.

(1) Oxygen containers that meet the conditions specified in paragraph (i)(1)(i) or (i)(1)(ii) of this AD are compliant with the requirements of paragraph (h) of this AD.

(i) Oxygen containers Type I having a part number listed in paragraph (h)(1) of this AD and having a serial number listed in paragraph (h)(2) of this AD, that have been modified prior to September 9, 2014 (the effective date of AD 2014-13-12), as specified in the Accomplishment Instructions of B/E Aerospace Service Bulletin 1XCXX-0100-35-005, Revision 1, dated December 15, 2012.

(ii) Oxygen containers Type II having a part number listed in paragraph (h)(1) of this AD and having a serial number listed in paragraph (h)(2) of this AD, that have been modified prior to September 9, 2014 (the effective date of AD 2014-13-12), as specified in the Accomplishment Instructions of B/E Aerospace Service Bulletin 22CXX-0100-35-003, Revision 1, dated December 20, 2011.

(2) Airplanes on which Airbus Modification 150703 or Airbus Modification 150704 has not been embodied in production do not have to comply with the requirements of paragraph (h) of this AD, unless an oxygen container having a part number listed in paragraph (h)(1) of this AD and having a serial number listed in paragraph (h)(2) of this AD has been installed since the airplane's first flight.

(3) Airplanes on which Airbus Modification 150703 or Airbus Modification 150704 has been embodied in production and which are not listed by model and manufacturer serial number in Airbus Service Bulletin A320-35A1047, dated March 29, 2011, are not subject to the requirements of paragraphs (g) and (h) of this AD, unless an oxygen container having a part number listed in

paragraph (h)(1) of this AD and having a serial number listed in paragraph (h)(2) of this AD has been installed since the airplane's first flight.

(4) Model A319 airplanes that are equipped with a gaseous oxygen system for passengers, installed in production with Airbus Modification 33125, do not have the affected passenger oxygen containers installed. Unless these airplanes have been modified in service (no approved Airbus modification exists), the requirements of paragraphs (g) and (h) of this AD do not apply to these airplanes.

(5) Airplanes that have already been inspected prior to the effective date of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-35A1047, dated March 29, 2011, must be inspected and, depending on the findings, corrected, within the compliance time defined in paragraph (g) of this AD, as required by paragraph (h) of this AD, as applicable, except as specified in paragraph (i)(6) of this AD.

(6) Airplanes on which the passenger oxygen container has been replaced before the effective date of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-35A1047, dated March 29, 2011, are compliant with the requirements of the paragraph (h) of this AD for that passenger oxygen container.

(7) The requirements of paragraphs (g) and (h) of this AD apply only to passenger oxygen containers that are Design A, as defined in figure 1 to paragraph (i)(7) of this AD.

**Figure 1 to Paragraph (i)(7) of this AD – Design A of the Passenger Oxygen Containers Affected by this AD**

**Design A:** The placard on the passenger oxygen container test button is as described in Picture A of Appendix 1 of this AD. The Mask configuration ("ZZ" in Picture A) is a number and the test button is as shown in Picture B.

**Picture A:**

View Z



YY/YYYY : Month and Year of Inspection of Container  
 X : number of masks  
 ZZ : Oxygen mask code from the 7. + 8. place of the Customer Part No.

**Picture B:**



Note 1 to figure 1 to paragraph (i)(7) of this AD: Figure 1 is a reproduction of material from EASA AD 2012-0083, dated May 16, 2012. The words "Appendix 1 of this AD" in this figure refer to Appendix 1 of EASA AD 2012-0083, dated May 16, 2012.

Note 2 to figure 1 to paragraph (i)(7) of this AD: For "Design A," the placard on the passenger oxygen container test button is as described in "Picture A" in figure 1 to paragraph (i)(7) of this AD.

The mask configuration ("ZZ" in "Picture A") is a number, and the test button is as shown in "Picture B."

**(j) Retained Parts Installation Limitations, With No Changes**

This paragraph restates the requirements of paragraph (j) of AD 2014-13-12, with no changes. As of September 9, 2014 (the effective date of AD 2014-13-12), no person may install an oxygen container having a part number specified in paragraph (h)(1) of this AD and having a serial number specified in paragraph (h)(2) of this AD, on any airplane, unless the container has been modified in accordance with the Accomplishment Instructions of any of the service information specified in paragraph (j)(1), (j)(2), or (j)(3) of this AD, as applicable.

(1) Airbus Service Bulletin A320-35A1047, dated March 29, 2011.

(2) B/E AEROSPACE Service Bulletin 1XCXX-0100-35-005, Revision 1, dated December 15, 2012.

(3) B/E AEROSPACE Service Bulletin 22CXX-0100-35-003, Revision 1, dated December 20, 2011.

**(k) New Requirement of This AD: Identification of Oxygen Containers**

At the applicable time specified in paragraphs (k)(1) and (k)(2) of this AD: Identify the part number and serial number of each passenger oxygen container. A review of airplane maintenance records is acceptable in lieu of this identification if the part number and serial number of the oxygen container can be conclusively determined from that review.

(1) For units with "B/E AEROSPACE" on the identification plate: Within 5,000 flight cycles, or 7,500 flight hours, or 24 months, whichever occurs first after the effective date of this AD.

(2) For units with "DAe Systems" on the identification plate: Within 2,500 flight cycles, or 3,750 flight hours, or 12 months, whichever occurs first, after the effective date of this AD.

**(l) New Requirement of This AD: Modification of Oxygen Containers**

If a passenger oxygen container has a part number listed in paragraph (h)(1) of this AD and a serial number listed in paragraph (m)(1) or (m)(2) of this AD: At the applicable time specified in paragraphs (k)(1) and (k)(2) of this AD, do the actions specified in paragraphs (l)(1), (l)(2), and (l)(3) of this AD.

(1) Replace the oxygen generator manifold of any affected oxygen container with a serviceable manifold, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-35A1047, dated March 29, 2011.

(2) Do an operational check of the manual mask release, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-35A1047, dated March 29, 2011. If the operational check fails, before further flight, repair the manual mask release, using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the EASA; or Airbus's EASA DOA.

(3) Check if the part number of the passenger oxygen container is listed in B/E Aerospace Service Bulletin 1XCXX-0100-35-005, Revision 2, dated July 10, 2014; or B/E Aerospace Service Bulletin 22CXX-0100-35-003, Revision 2, dated July 10, 2014, as applicable. If the part number is not listed in B/E Aerospace Service Bulletin 1XCXX-0100-35-005, Revision 2, dated July 10, 2014; or B/E Aerospace Service Bulletin 22CXX-0100-35-003, Revision 2, dated July 10, 2014; within the compliance time specified in paragraphs (k)(1) and (k)(2) of this AD, repair the passenger oxygen container using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the EASA; or Airbus's EASA DOA.

**(m) New Requirement of This AD: Part Numbers and Serial Numbers for the Parts Affected by Paragraph (l) of This AD Requirements**

Affected parts for the actions required by paragraph (l) of this AD are identified in paragraphs (m)(1) and (m)(2) of this AD.

(1) For oxygen containers with "DAe Systems" on the identification plate: Units having a part number identified in paragraphs (h)(1) of this AD, where part number "xxxxx" stands for any alphanumeric value, and a serial number identified in paragraphs (m)(1)(i) through (m)(1)(vi) of this AD.

- (i) ARBA-0000 to ARBA-9999 inclusive.
- (ii) ARBB-0000 to ARBB-9999 inclusive.
- (iii) ARBC-0000 to ARBC-9999 inclusive.
- (iv) ARBD-0000 to ARBD-9999 inclusive.
- (v) ARBE-0000 to ARBE-9999 inclusive.
- (vi) BEBE-0000 to BEBE-9999 inclusive.

(2) For oxygen containers with "B/E AEROSPACE" on the identification plate: Units having a part number identified in paragraphs (h)(1) of this AD, where part number "xxxxx" stands for any alphanumeric value, and a serial number identified in paragraphs (m)(2)(i) through (m)(2)(v) of this AD.

- (i) BEBF-0000 to BEBF-9999 inclusive.
- (ii) BEBH-0000 to BEBH-9999 inclusive.
- (iii) BEBK-0000 to BEBK-9999 inclusive.
- (iv) BEBL-0000 to BEBL-9999 inclusive.
- (v) BEBM-0000 to BEBM-9999 inclusive.

**(n) New Requirement of This AD: Exceptions**

(1) Oxygen containers that meet the conditions specified in paragraph (n)(1)(i) or (n)(1)(ii) of this AD are compliant with the requirements of paragraph (l) of this AD.

(i) Oxygen containers Type I having a part number listed in paragraph (h)(1) of this AD and having a serial number listed in paragraph (m)(1) or (m)(2), as applicable, of this AD, that have been modified prior to the effective date of this AD, as specified in the Accomplishment Instructions of B/E Aerospace Service Bulletin 1XCXX-0100-35-005, Revision 1, dated December 15, 2012; or B/E Aerospace Service Bulletin 1XCXX-0100-35-005, Revision 2, dated July 10, 2014.

(ii) Oxygen containers Type II having a part number listed in paragraph (h)(1) of this AD and having a serial number listed in paragraph (m)(1) or (m)(2) of this AD, as applicable, that have been modified prior to the effective date of this AD, as specified in the Accomplishment Instructions of B/E Aerospace Service Bulletin 22CXX-0100-35-003, Revision 1, dated December 20, 2011; or B/E Aerospace Service Bulletin 22CXX-0100-35-003, Revision 2, dated July 10, 2014.

(2) Airplanes on which Airbus Modification 150703 or Airbus Modification 150704 has not been embodied in production do not have to comply with the requirements of paragraph (l) of this AD, unless an oxygen container having a part number listed in paragraph (h)(1) of this AD and having a serial number listed in paragraph (m)(1) or (m)(2) of this AD, as applicable, of this AD has been installed since the airplane's first flight.

(3) Airplanes on which Airbus Modification 150703 or Airbus Modification 150704 has been embodied in production and which are not listed by model and manufacturer serial number in Airbus Service Bulletin A320-35A1047, dated March 29, 2011, are not subject to the requirements of paragraphs (k) and (l) of this AD, unless an oxygen container having a part number listed in paragraph (h)(1) of this AD and having a serial number listed in paragraph (m)(1) or (m)(2) of this AD, as applicable, of this AD has been installed since the airplane's first flight.

(4) Model A319 airplanes that are equipped with a gaseous oxygen system for passengers, installed in production with Airbus Modification 33125, do not have the affected passenger oxygen

containers installed. Unless these airplanes have been modified in service (no approved Airbus modification exists), the requirements of paragraphs (k) and (l) of this AD do not apply to these airplanes.

(5) Airplanes that have already been inspected prior to the effective date of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-35A1047, dated March 29, 2011, must be inspected and, depending on the findings, corrected, within the compliance time defined in paragraphs (k)(1) and (k)(2) of this AD, as applicable, as required by paragraph (l) of this AD, as applicable, except as specified in paragraph (n)(6) of this AD.

(6) Airplanes on which the passenger oxygen container has been replaced before the effective date of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-35A1047, dated March 29, 2011, are compliant with the requirements of the paragraph (l) of this AD for that passenger oxygen container.

(7) The requirements of paragraphs (k) and (l) of this AD apply only to passenger oxygen containers that are Design A, as defined in figure 1 to paragraph (i)(7) of this AD.

**(o) New Requirement of This AD: Parts Installation Limitations**

As of the effective date of this AD, no person may install an oxygen container having a part number specified in paragraph (h)(1) of this AD and having a serial number specified in paragraph (m)(1) or (m)(2) of this AD, as applicable, on any airplane, unless the container has been modified in accordance with the Accomplishment Instructions of any of the service information specified in paragraph (o)(1), (o)(2), or (o)(3) of this AD, as applicable to the oxygen container part number.

(1) Airbus Service Bulletin A320-35A1047, dated March 29, 2011.

(2) B/E Aerospace Service Bulletin 1XCXX-0100-35-005, Revision 2, dated July 10, 2014.

(3) B/E Aerospace Service Bulletin 22CXX-0100-35-003, Revision 2, dated July 10, 2014.

**(p) Credit for Previous Actions**

(1) This paragraph restates the requirements of paragraph (k) of AD 2014-13-12, with no changes. This paragraph provides credit for the actions required by paragraph (h) of this AD, if those actions were performed before September 9, 2014 (the effective date of AD 2014-13-12) using the service information specified in paragraph (p)(1)(i) or (p)(1)(ii) of this AD, as applicable to the oxygen container part number.

(i) B/E Aerospace Service Bulletin 1XCXX-0100-35-005, dated March 14, 2011, which is not incorporated by reference in this AD.

(ii) B/E Aerospace Service Bulletin 22CXX-0100-35-003, dated March 17, 2011, which is not incorporated by reference in this AD.

(2) This paragraph provides credit for the actions required by paragraphs (l)(3) and (o) of this AD, if those actions were performed before the effective date of this AD using the service information specified in paragraph (p)(2)(i) or (p)(2)(ii) of this AD, as applicable to the oxygen container part number.

(i) B/E Aerospace Service Bulletin 1XCXX-0100-35-005, Revision 1, dated December 15, 2012, which was incorporated by reference in AD 2014-13-12.

(ii) B/E Aerospace Service Bulletin 22CXX-0100-35-003, Revision 1, dated December 20, 2011, which was incorporated by reference in AD 2014-13-12.

**(q) Other FAA AD Provisions**

The following provisions also apply to this AD:

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

request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax-425-227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov.

(i) 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.

(ii) AMOCs approved previously for AD 2014-13-12, are approved as AMOCs for the corresponding provisions of paragraphs (g) through (j) of this AD.

(2) Contacting the Manufacturer: As of the effective date of this AD, for any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or Airbus's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

### **(r) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2014-0208, dated September 16, 2014, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-4228.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (s)(5), (s)(6), and (s)(7) of this AD.

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

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

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

(3) The following service information was approved for IBR on January 20, 2017.

(i) B/E Aerospace Service Bulletin 1XCXX-0100-35-005, Revision 2, dated July 10, 2014.

(ii) B/E Aerospace Service Bulletin 22CXX-0100-35-003, Revision 2, dated July 10, 2014.

(4) The following service information was approved for IBR on September 9, 2014 (79 FR 45317, August 5, 2014).

(i) Airbus Service Bulletin A320-35A1047, dated March 29, 2011.

(ii) B/E Aerospace Service Bulletin 1XCXX-0100-35-005, Revision 1, dated December 15, 2012.

(iii) B/E Aerospace Service Bulletin 22CXX-0100-35-003, Revision 1, dated December 20, 2011.

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

(6) For B/E Aerospace service information identified in this AD, contact BE Aerospace Systems GmbH, Revalstrasse 1, 23560 Lübeck, Germany; telephone (49) 451 4093-2976; fax (49) 451 4093-4488.

(7) You may view this 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 November 25, 2016.

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



---

**2016-25-09 The Boeing Company:** Amendment 39-18735; Docket No. FAA-2016-5598; Directorate Identifier 2016-NM-001-AD.

**(a) Effective Date**

This AD is effective January 17, 2017.

**(b) Affected ADs**

This AD replaces AD 2012-22-02, Amendment 39-17238 (77 FR 69739, November 21, 2012) ("AD 2012-22-02").

**(c) Applicability**

This AD applies to The Boeing Company Model 747-400, -400D, and -400F series airplanes, certificated in any category, as specified in Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015.

**(d) Subject**

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

**(e) Unsafe Condition**

This AD was prompted by a determination that there were no inspection or repair procedures included in AD 2012-22-02 for airplanes with a station (STA) 320 crown frame web thickness less than 0.078 inch, or greater than or equal to 0.084 inch and less than or equal to 0.135 inch. We are issuing this AD to prevent complete fracture of the crown frame assembly, and consequent damage to the skin. Such damage could result in in-flight decompression of the airplane.

**(f) Compliance**

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

**(g) Crown Frame Web Measurement for Certain Airplanes**

For Group 1, Configuration 3 airplanes, identified in Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015: At the compliance time specified in table 1 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015, measure the thickness of the crown frame web at STA 320, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015, except as required by paragraph (1)(2) of this AD. Do all related investigative and corrective actions at the applicable times specified in tables 2 and 3 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015.

**(h) Inspections (Web With No Repair Doubler) and Related Investigative and Corrective Actions (Including Web Replacement)**

For Group 1, Configuration 1 airplanes, identified in Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015: For airplanes with a web thickness less than 0.136 inch and no repair doubler installed on the web, at the time specified in table 2 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015, do a detailed inspection for cracks and a general visual inspection for missing fasteners of the crown frame web at STA 320, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015, except as specified in paragraph (1)(2) of this AD. Do the applicable related investigative and corrective actions at the applicable times specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015.

**(i) Inspection (Web With Repair Doubler) and Related Investigative and Corrective Actions (Including Web Replacement)**

For Group 1, Configuration 1 airplanes, identified in Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015: For airplanes with a web thickness less than 0.136 inch and a repair doubler installed on the web, at the time specified in table 3 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015, do a detailed inspection for any crack in the upper chord and lower chord of the STA 320 crown frame, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015, except as specified in paragraph (1)(2) of this AD. Do the applicable related investigative and corrective actions at the applicable times specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015.

**(j) Web Replacement for Certain Airplanes**

For Group 1, Configuration 2 airplanes, identified in Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015: At the applicable time specified in table 5 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015, except as provided by paragraph (1)(1) of this AD, replace the web, including doing related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015, except as required by paragraph (1)(2) of this AD. Do all applicable related investigative and corrective actions before further flight.

**(k) Post-Replacement Repetitive Inspections of Replaced Web**

Following any web replacement required by this AD, at the time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015: Do a detailed inspection for cracks of the web, upper chord, lower chord, and lower chord splice, and do all applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015, except as required by paragraph (1)(2) of this AD. Do all applicable corrective actions before further flight. If no crack is found, repeat the inspection thereafter at the intervals specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015. Accomplishment of the inspections required by AD 2009-19-05, Amendment 39-16022 (74 FR 48138, September 22, 2009), terminates the requirements of this paragraph.

**(l) Exceptions to the Service Information, With Updated Service Information**

(1) Where Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015, specifies a compliance time "after the Revision 2 date of the service bulletin," this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) Where Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015, specifies to contact Boeing for appropriate action, accomplish applicable actions before further flight using a method approved in accordance with the procedures specified in paragraph (n) of this AD.

**(m) Credit for Previous Actions**

(1) This paragraph provides credit for the actions required by paragraphs (h), (i), and (k) of this AD, if those actions were performed before December 26, 2012 (the effective date of AD 2012-22-02), using Boeing Service Bulletin 747-53A2784, dated August 27, 2009.

(2) This paragraph provides credit for the actions required by paragraphs (h), (i), and (k) of this AD, if those actions were performed before the effective date of this AD using Boeing Service Bulletin 747-53A2784, Revision 1, dated September 14, 2011. This service information was incorporated by reference in AD 2012-22-02.

**(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 paragraph (o)(1) of this AD.

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

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration 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. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

**(o) Related Information**

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

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

**(p) Material Incorporated by Reference**

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

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

(i) Boeing Alert Service Bulletin 747-53A2784, Revision 2, dated August 20, 2015.

(ii) Reserved.

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

(4) You may view this 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 November 25, 2016.

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



---

**2016-25-10 Rolls-Royce plc:** Amendment 39-18736; Docket No. FAA-2016-6744; Directorate Identifier 2016-NE-12-AD.

**(a) Effective Date**

This AD becomes effective January 20, 2017.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Rolls-Royce plc (RR) 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 engines that have not incorporated RR modification 72-J195, in production, or RR Service Bulletin RB.211-72-J195, dated February 26, 2016, in service.

**(d) Reason**

This AD was prompted by inspection of RR Trent 800 model engines returned from service that revealed flame erosion and axial cracking on the aft face of the stage 3 disk rim of the high-pressure compressor (HPC) stage 1-4 rotor disks shaft. We are issuing this AD to correct the unsafe condition on these products.

**(e) Actions and Compliance**

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

(1) Before the HPC stage 1-4 rotor disks shaft cyclic life exceeds 5,000 duty cycles since new, or 5,000 duty cycles since last HPC stage 1-4 rotor disks shaft piece-part inspection, whichever occurs later, do the following:

(i) Perform fluorescent penetrant and visual inspections of the HPC stage 1-4 rotor disks shaft forward stage 3-4 seal fin and aft face of the stage 3 disk rim for cracks and flame erosion. Any findings of cracks or flame erosion constitute a failure of the HPC stage 1-4 rotor disks shaft.

(ii) Machine the HPC stage 3 inner shroud to the dimensions shown in Figure 1 of RR Service Bulletin (SB) RB.211-72-J195, dated February 26, 2016.

(2) If the HPC stage 1-4 rotor disks shaft fails the inspections required by paragraph (e)(1)(i) of this AD, replace with a part eligible for installation before further flight.

**(f) 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. You may email your request to: ANE-AD-AMOC@faa.gov.

**(g) Related Information**

(1) For more information about this AD, contact Robert Green, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7754; fax: 781-238-7199; email: robert.green@faa.gov.

(2) Refer to MCAI European Aviation Safety Agency AD 2016-0078, dated April 20, 2016 (corrected April 27, 2016), for more information. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2016-6744.

**(h) Material Incorporated by Reference**

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

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

(i) Rolls-Royce plc (RR) SB RB.211-72-J195, dated February 26, 2016.

(ii) Reserved.

(3) For RR service information identified in this AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE24 8BJ; phone: 011-44-1332-242424; fax: 011-44-1332-249936; email: [http://www.rolls-royce.com/contact/civil\\_team.jsp](http://www.rolls-royce.com/contact/civil_team.jsp); Internet: <https://customers.rolls-royce.com/public/rollsroycecare>.

(4) You may view this service information at FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

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

Issued in Burlington, Massachusetts, on November 23, 2016.

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



---

**2016-25-11 International Aero Engines AG:** Amendment 39-18737; Docket No. FAA-2016-7099; Directorate Identifier 2016-NE-15-AD.

**(a) Effective Date**

This AD is effective January 20, 2017.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to International Aero Engines AG (IAE) V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5, V2525-D5, V2528-D5, and V2531-E5 turbofan engines with No. 3 bearing serial numbers (S/Ns) listed in Appendix 1 of IAE Non-Modification Service Bulletin (NMSB) V2500-ENG-72-0671, dated March 22, 2016.

**(d) Unsafe Condition**

This AD was prompted by several in-flight shutdowns that resulted from premature failure of the No. 3 bearing. We are issuing this AD to correct the unsafe condition on these products.

**(e) Compliance**

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

(1) Prior to accumulating 125 flight hours (FH) after the effective date of this AD, inspect the master magnetic chip detector (MMCD) for metallic debris. If no metallic debris is found during the MMCD inspection, repeat the inspection within every 125 FH.

(2) If metallic debris is found during the MMCD inspection, evaluate the debris using paragraph 2.B. of the Accomplishment Instructions in IAE NMSB V2500-ENG-72-0671, dated March 22, 2016. Perform additional inspections or remove the engine from service in accordance with the Accomplishment Instructions in IAE NMSB V2500-ENG-72-0671.

(3) Remove the No. 3 bearing from service at the next engine shop visit and replace it with a bearing part/serial number combination not listed in Appendix 1 of IAE NMSB V2500-ENG-72-0671, dated March 22, 2016.

**(f) Mandatory Terminating Action**

Removal of the No. 3 bearing from service at the next engine shop visit and replacement with a bearing not listed in Appendix 1 of IAE NMSB V2500-ENG-72-0671, dated March 22, 2016, is terminating action to this AD.

**(g) Definition**

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

**(h) 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. You may email your request to: ANE-AD-AMOC@faa.gov.

**(i) Related Information**

(1) For more information about this AD, contact Brian Kierstead, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7772; fax: 781-238-7199; email: brian.kierstead@faa.gov.

(2) IAE NMSB V2500-ENG-72-0673, dated June 3, 2016, can be obtained from IAE using the contact information in paragraph (j)(3) of this AD.

**(j) Material Incorporated by Reference**

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

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

(i) International Aero Engines AG (IAE) Non-Modification Service Bulletin V2500-ENG-72-0671, dated March 22, 2016.

(ii) Reserved.

(3) For IAE service information identified in this AD, contact International Aero Engines AG, 400 Main Street, East Hartford, CT 06118; phone: 860-565-0140; email: help24@pw.utc.com; Internet: <http://fleetcare.pw.utc.com>.

(4) You may view this service information at FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

(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 Burlington, Massachusetts, on November 28, 2016.

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



---

**2016-25-15 Airbus:** Amendment 39-18741; Docket No. FAA-2016-7425; Directorate Identifier 2014-NM-244-AD.

**(a) Effective Date**

This AD is effective January 23, 2017.

**(b) Affected ADs**

This AD replaces AD 2011-17-05, Amendment 39-16769 (76 FR 63177, October 12, 2011) ("AD 2011-17-05").

**(c) Applicability**

This AD applies to Airbus Model A300 B2-1C, A300 B2-203, A300 B2K-3C, A300-B4-103, A300 B4-203, and A300 B4-2C airplanes; certificated in any category; all manufacturer serial numbers, except those on which Airbus Modification 2611 has been embodied in production.

**(d) Subject**

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

**(e) Reason**

This AD was prompted by an evaluation done by the design approval holder indicating that certain sections of the longitudinal lap joints are subject to widespread fatigue damage. We are issuing this AD to detect and correct fatigue cracking of the longitudinal lap joints of the fuselage, which could result in reduced structural integrity of the airplane.

**(f) Compliance**

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

**(g) Retained Fuselage Inner Doubler Inspections and Repair, With Revised Formatting**

This paragraph restates the requirements of paragraph (l) of AD 2011-17-05, with revised formatting. For airplanes on which any inspections of the fuselage bonded inner doublers of the longitudinal lap joints in sections 13 through 18 (except sections 16 and 17 at stringer 31 left-hand and right-hand) for disbonding and cracking have not been done as of November 16, 2011 (the effective date of AD 2011-17-05), as specified by Airbus Service Bulletin A300-53-229: Prior to the accumulation of 24,000 total flight cycles or within 15 years since new, whichever occurs first; or within 60 days after November 16, 2011; whichever occurs later; do a detailed inspection of the fuselage bonded inner doublers of the longitudinal lap joints in sections 13 through 18 (except sections 16 and 17 at stringer 31 left-hand and right-hand) for disbonding and cracking, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-53-229, Revision 5, dated

April 8, 1997. If no disbonding and no cracking are found, repeat the inspection thereafter at the applicable intervals specified in paragraph (h) of this AD.

(1) If no cracking is found, and "minor" disbonding, as defined in Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997, is found: Repeat the inspection thereafter at intervals not to exceed 1 year for areas below stringer 22, and at intervals not to exceed 2 years for areas above and including stringer 22.

(2) If no cracking is found, and "major" disbonding, as defined in Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997, is found: Within 1,000 flight cycles after doing the inspection, repair, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997.

(3) If any cracking is found, repair prior to further flight, in accordance with Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997.

#### **(h) Retained Repetitive Intervals for Inspections for Disbonding and Cracking, With No Changes**

This paragraph restates the repetitive intervals specified in table 1 of AD 2011-17-05, with no changes. At the applicable time specified in paragraph (h)(1) or (h)(2) of this AD, repeat the inspection required by paragraph (g) of this AD.

(1) For sections 13 and 14 as specified in Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997: Repeat the inspection at intervals not to exceed 7 years or 12,000 flight cycles, whichever occurs first.

(2) For sections 15 through 18 as specified in Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997: Repeat the inspection within 8.5 years or 12,000 flight cycles, whichever occurs first.

#### **(i) Retained Fuselage Inner Doublers Inspections and Repair, With No Changes**

This paragraph restates the requirements of paragraph (m) of AD 2011-17-05, with no changes. For airplanes on which any inspections of the fuselage bonded inner doublers of the longitudinal lap joints in sections 13 through 18 (except sections 16 and 17 at stringer 31 left-hand and right-hand) for disbonding and cracking have been done as of November 16, 2011 (the effective date of AD 2011-17-05), as specified in Airbus Service Bulletin A300-53-229; except for airplanes on which a repair of that area has been done as specified in Airbus Service Bulletin A300-53-229: Within 7 years or 12,000 flight cycles (for sections 13 and 14), or within 8.5 years or 12,000 flight cycles (for sections 15 and 18), after doing the inspection, whichever occurs first; or within 60 days after November 16, 2011, whichever occurs later, do a detailed inspection of the fuselage bonded inner doublers of the longitudinal lap joints in sections 13 through 18 (except sections 16 and 17 at stringer 31 left-hand and right-hand) for disbonding and cracking, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997. If no disbonding and no cracking are found, repeat the inspection at the applicable time specified in paragraph (h) of this AD.

(1) If no cracking is found, and "minor" disbonding, as defined in Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997, is found: Repeat the inspection thereafter at intervals not to exceed 1 year for areas below stringer 22, and at intervals not to exceed 2 years for areas above and including stringer 22.

(2) If no cracking is found, and "major" disbonding, as defined in Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997, is found: Within 1,000 flight cycles after doing the inspection, repair, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997.

(3) If any cracking is found, repair prior to further flight, in accordance with Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997.

**(j) Retained Fuselage Inner Doubler Inspections and Repair, With No Changes**

This paragraph restates the requirements of paragraph (n) of AD 2011-17-05, with no changes. For airplanes on which any inspections of the fuselage bonded inner doublers of the longitudinal lap joints in sections 16 and 17 at stringer 31 left-hand and right-hand for disbonding and cracking have not been done as of November 16, 2011 (the effective date of AD 2011-17-05), as specified in Airbus Service Bulletin A300-53-229: Prior to the accumulation of 24,000 total flight cycles or within 12 years since new, whichever occurs first; or within 60 days after November 16, 2011, whichever occurs later, do a detailed inspection of the fuselage bonded inner doublers of the longitudinal lap joints in sections 16 and 17 at stringer 31 left-hand and right-hand for disbonding and cracking, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997. If no disbonding and no cracking are found, repeat the inspection thereafter at intervals not to exceed 7 years or 12,000 flight cycles, whichever occurs first.

(1) If no cracking is found, and "minor" disbonding, as defined in Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997, is found: Repeat the inspection thereafter at intervals not to exceed 1 year for areas below stringer 22, and at intervals not to exceed 2 years for areas above and including stringer 22. Doing a repair in accordance with Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997, terminates the repetitive inspections required by this paragraph for that area.

(2) If no cracking is found, and "major" disbonding, as defined in Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997, is found: Within 1,000 flight cycles after doing the inspection, repair, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997.

(3) If any cracking is found, repair prior to further flight, in accordance with Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997.

**(k) Retained Fuselage Inner Doubler Inspections and Repair, With No Changes**

This paragraph restates the requirements of paragraph (o) of AD 2011-17-05, with no changes. For airplanes on which any inspections of the fuselage bonded inner doublers of the longitudinal lap joints in sections 16 and 17 at stringer 31 left-hand and right-hand for disbonding and cracking have been done as of November 16, 2011, as specified in Airbus Service Bulletin A300-53-229; except airplanes on which a repair of that area has been done as specified in Airbus Service Bulletin A300-53-229: Within 7 years or 12,000 flight cycles after doing the inspection, whichever occurs first; or within 60 days after November 16, 2011; whichever occurs later; do a detailed inspection of the fuselage bonded inner doublers of the longitudinal lap joints in sections 16 and 17 at stringer 31 left-hand and right-hand for disbonding and cracking, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997. If no disbonding and no corrosion are found, repeat the inspection thereafter at intervals not to exceed 7 years or 12,000 flight cycles, whichever occurs first.

(1) If no cracking is found, and "minor" disbonding, as defined in Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997, is found: Repeat the inspection thereafter at intervals not to exceed 1 year for areas below stringer 22, and at intervals not to exceed 2 years for areas above and including stringer 22. Doing a repair, in accordance with Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997, terminates the repetitive inspections required by this paragraph for that area.

(2) If no cracking is found, and "major" disbonding, as defined in Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997, is found: Within 1,000 flight cycles after doing the inspection, repair, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997.

(3) If any cracking is found, repair prior to further flight, in accordance with Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997.

**(l) New Repetitive Inspections and Repair**

Within 180 days after the effective date of this AD, do rototest and ultrasonic inspections, as applicable, for cracking of all longitudinal lap joints and repairs between frames 18 and 80; and repair any cracking before further flight; using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA). Repeat the applicable inspection, including post-repair inspections, thereafter at intervals approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or Airbus's EASA DOA. Accomplishing the initial inspection and applicable repairs required by this paragraph terminates the actions required by paragraphs (g) through (k) of this AD.

**(m) 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: Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-2125; 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) Contacting the Manufacturer: As of the effective date of this AD, for any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the EASA; or Airbus's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

**(n) Related Information**

Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2014-0265, dated December 9, 2014, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-7425.

**(o) Material Incorporated by Reference**

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

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

(3) The following service information was approved for IBR on November 16, 2011 (76 FR 63177, October 12, 2011).

(i) Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997, including Appendix A300SB/53-229, dated April 10, 1989. Only pages 1, 2, 5, 11, and 12 of Airbus Service Bulletin A300-53-229, Revision 5, dated April 8, 1997, show revision level 5 and issue date April 8, 1997; pages 3, 4-10, and 13-17 show revision level 4 and issue date March 30, 1994; and pages 1-17 of Appendix A300SB/53-229 show issue date April 10, 1989.

(ii) Reserved.

(4) For service information identified in this AD, contact Airbus SAS, Airworthiness Office–EAW, 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>.

(5) You may view this 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.

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

Issued in Renton, Washington, on December 1, 2016.

Michael Kaszycki,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



---

**2016-25-16 Bombardier, Inc.:** Amendment 39-18742; Docket No. FAA-2016-8847; Directorate Identifier 2016-NM-020-AD.

**(a) Effective Date**

This AD is effective January 25, 2017.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Bombardier, Inc. Model CL-600-2E25 (Regional Jet Series 1000) airplanes, certificated in any category, serial numbers 19002 through 19041 inclusive.

**(d) Subject**

Air Transport Association (ATA) of America Code 32, Landing gear.

**(e) Reason**

This AD was prompted by reports of two cases where the main landing gear (MLG) failed to fully extend; it was determined that interference between the MLG door and the MLG fairing seal prevented the MLG door from opening fully. We are issuing this AD to detect and correct interference between the MLG door and the MLG fairing seal. Such interference could result in a MLG failing to fully extend, which could cause an unsafe asymmetric landing configuration.

**(f) Compliance**

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

**(g) Inspection of MLG Fairing, Fairing Seal, Door, and Adjacent Structures**

Within 660 flight hours after the effective date of this AD, conduct a detailed inspection for damage to the MLG fairing, fairing seal, door, and adjacent structures, and for missing parts and fasteners, in accordance with Part A of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013. Repeat the inspection thereafter at intervals not to exceed 660 flight hours until the installation required by paragraph (m) of this AD is done.

**(h) Replacement of MLG Fairing Seal or Door Removal**

If damage to the MLG fairing seal is found during any inspection required by paragraph (g) of this AD, before further flight, replace the seal, in accordance with Part B of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013; or remove the

MLG door, in accordance with Part C of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013.

**(i) Repair of the MLG Door or MLG Door Removal**

If damage to the MLG door is found during any inspection required by paragraph (g) of this AD, before further flight, repair using a method approved by the Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO); or remove the MLG door, in accordance with Part C of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013.

**(j) Repair of the MLG Fairing**

If damage to the MLG fairing is found during any inspection required by paragraph (g) of this AD, before further flight, repair using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO.

**(k) Repair of the Adjacent Structure and Other Corrective Actions**

If damage to the adjacent structure is found or if any part or fastener is found missing or damaged during any inspection required by paragraph (g) of this AD, before further flight, do the applicable actions specified in paragraphs (k)(1) and (k)(2) of this AD.

(1) Replace missing or damaged parts and fasteners, in accordance with Part A of the Accomplishment Instruction of Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013, except where Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013, specifies to contact Bombardier, before further flight, repair using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO.

(2) Repair damaged structure using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO.

**(l) Reinstallation of the MLG Door**

For any MLG door that has been removed as specified in paragraph (h) or (i) of this AD: Reinstallation of the door, if accomplished, must be done in accordance with Part D of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013. Before further flight after any reinstallation, the inspection required by paragraph (g) of this AD must be done and the inspection must be repeated thereafter at the times specified in paragraph (g) of this AD until the installation required by paragraph (m) of this AD is done.

**(m) Installation of a Safety Guide on the MLG Fairing and Increase of Spacing Between MLG Door and Fairing**

Except as required by paragraph (n) of this AD: Within 6,600 flight hours or 36 months, whichever occurs first, after the effective date of this AD, install a safety guide on the MLG fairing and increase the spacing between the MLG door and the fairing, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-049, dated May 26, 2015. Accomplishment of these actions terminates the requirements of paragraphs (g) and (l) of this AD.

**(n) Provisions for Removed/Reinstalled Doors**

If the MLG door has been removed in accordance with Part C of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013, the installation required by paragraph (m) of this AD may be delayed until the MLG door is reinstalled in accordance with paragraph (l) of this AD. When the removed MLG door is reinstalled, the installation required by paragraph (m) of this AD must be done at the time specified in paragraph (m) of this AD or before further flight after reinstallation of the removed MLG door, whichever occurs later.

**(o) Other FAA AD Provisions**

The following provisions also apply to this AD:

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

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO. If approved by the DAO, the approval must include the DAO-authorized signature.

**(p) Related Information**

Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2015-30, dated December 30, 2015, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-8847.

**(q) Material Incorporated by Reference**

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

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

(i) Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013.

(ii) Bombardier Service Bulletin 670BA-32-049, dated May 26, 2015.

(3) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; Widebody Customer Response Center North America toll-free telephone 1-866-538-1247 or direct-dial telephone 1-514-855-2999; fax 514-855-7401; email [ac.yul@aero.bombardier.com](mailto:ac.yul@aero.bombardier.com); Internet <http://www.bombardier.com>.

(4) You may view this 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/foia/foia-search-locations.html>;

Issued in Renton, Washington, on December 1, 2016.  
Michael Kaszycki,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



---

**2016-25-17 Saab AB, Saab Aeronautics (formerly known as Saab AB, Saab Aerosystems):**  
Amendment 39-18743; Docket No. FAA-2016-9056; Directorate Identifier 2016-NM-007-AD.

**(a) Effective Date**

This AD is effective January 25, 2017.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to certain Saab AB, Saab Aeronautics (formerly known as Saab AB, Saab Aerosystems) Model SAAB 2000 airplanes, certificated in any category, serial numbers 017, 019 through 021 inclusive, 027 through 028 inclusive, 030, 034, 040, 050, and 052.

**(d) Subject**

Air Transport Association (ATA) of America Code 38, Water/waste.

**(e) Reason**

This AD was prompted by an occurrence that was reported of rudder pedal restriction on a SAAB Model 2000 airplane with the large potable water system installed, equipped with in-line heaters. We are issuing this AD to prevent water spray in case of a failed pipe or coupling during water filling on the ground. This condition, if not corrected, could freeze parts of the flight control system, possibly resulting in reduced control of the airplane.

**(f) Compliance**

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

**(g) Repair of Basic Potable Water System (BPWS)**

Within 24 months after the effective date of this AD, install shrinkable tubes on the water piping of the BPWS, in accordance with the Accomplishment Instructions of SAAB Service Bulletin 2000-38-012, dated August 20, 2015.

**(h) 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: Shahram Daneshmandi, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1112; 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.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Saab AB, Saab Aeronautics' EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

#### **(i) Related Information**

Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2016-0013, dated January 14, 2016, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9056.

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

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

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

(i) SAAB Service Bulletin 2000-38-012, dated August 20, 2015.

(ii) Reserved.

(3) For service information identified in this AD, contact Saab AB, Saab Aeronautics, SE-581 88, Linköping, Sweden; telephone +46 13 18 5591; fax +46 13 18 4874; email [saab2000.techsupport@saabgroup.com](mailto:saab2000.techsupport@saabgroup.com); Internet <http://www.saabgroup.com>.

(4) You may view this 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 December 1, 2016.

Michael Kaszycki,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



---

**2016-25-18 Bombardier Inc.:** Amendment 39-18744; Docket No. FAA-2016-9503; Directorate Identifier 2016-NM-179-AD.

**(a) Effective Date**

This AD becomes effective January 3, 2017.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Bombardier Inc. Model BD-700-1A10 and BD-700-1A11 airplanes, certificated in any category, serial numbers (S/Ns) 9002 through 9763 inclusive, 9765, 9767 through 9770 inclusive, and 9998.

**(d) Subject**

Air Transport Association (ATA) of America Code 72, Engine.

**(e) Reason**

This AD was prompted by a report indicating that during maintenance, an engine mount pin was found backed out of the rear mount link, and the associated retaining bolt was also found fractured at the groove that holds the locking spring. We are issuing this AD to detect and correct broken engine attachment hardware, which could result in separation of an engine from the airplane.

**(f) Compliance**

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

**(g) Inspection**

Within 500 flight hours or 4 months, whichever occurs first after the effective date of this AD: Do an inspection for discrepancies of the engine rear mount assemblies (including missing or broken bolts, missing nuts, incorrect torque values, and an incorrect gap between the bushing and washer); in accordance with Part A of the Accomplishment Instructions of the applicable service information specified in paragraphs (g)(1) through (g)(4) of this AD.

(1) Bombardier Service Bulletin 700-71-002, Revision 01, dated June 30, 2016 (for Bombardier Model BD-700-1A10 airplanes).

(2) Bombardier Service Bulletin 700-71-6002, Revision 01, dated June 30, 2016 (for Bombardier Model BD-700-1A10 airplanes).

(3) Bombardier Service Bulletin 700-71-5002, Revision 01, dated June 30, 2016 (for Bombardier Model BD-700-1A11 airplanes).

(4) Bombardier Service Bulletin 700-1A11-71-002, Revision 01, dated June 30, 2016 (for Bombardier Model BD-700-1A11 airplanes).

**(h) Corrective Action**

If any discrepancy is detected during the inspection required by paragraph (g) of this AD, before further flight, replace missing parts and correct noncompliant gaps and bolt torque, as specified in the Accomplishment Instructions of the applicable service information specified in paragraphs (g)(1) through (g)(4) of this AD, except as required by paragraph (i) of this AD.

**(i) Exceptions to Service Information Specifications**

Where the applicable Bombardier service bulletin provides no instructions for corrective actions, or specifies to contact Bombardier for appropriate action, accomplish corrective actions in accordance with the procedures specified in paragraph (k)(2) of this AD.

**(j) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraphs (g) and (h) of this AD, if those actions were performed before the effective date of this AD in accordance with the Accomplishment Instructions of the applicable service information specified in paragraphs (j)(1) through (j)(4) of this AD.

- (1) Bombardier Service Bulletin 700-71-002, dated May 31, 2016.
- (2) Bombardier Service Bulletin 700-71-6002, dated May 31, 2016.
- (3) Bombardier Service Bulletin 700-71-5002, dated May 31, 2016.
- (4) Bombardier Service Bulletin 700-1A11-71-002, dated May 31, 2016.

**(k) Other FAA AD Provisions**

The following provisions also apply to this AD:

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

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO, ANE-170, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

**(l) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2016-23, dated July 28, 2016, for related information. You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9503.

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

**(m) Material Incorporated by Reference**

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

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

(i) Bombardier Service Bulletin 700-71-002, Revision 01, dated June 30, 2016.

(ii) Bombardier Service Bulletin 700-71-6002, Revision 01, dated June 30, 2016.

(iii) Bombardier Service Bulletin 700-71-5002, Revision 01, dated June 30, 2016.

(iv) Bombardier Service Bulletin 700-1A11-71-002, Revision 01, dated June 30, 2016.

(3) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email [thd.crj@aero.bombardier.com](mailto:thd.crj@aero.bombardier.com); Internet <http://www.bombardier.com>.

(4) You may view this 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 December 2, 2016.

Michael Kaszycki,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



---

**2016-25-21 The Boeing Company:** Amendment 39-18747; Docket No. FAA-2015-7531; Directorate Identifier 2015-NM-052-AD.

**(a) Effective Date**

This AD is effective January 26, 2017.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to The Boeing Company Model 787-8 airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin B787-81205-SB210055-00, Issue 001, dated March 12, 2015.

**(d) Subject**

Air Transport Association (ATA) of America Code 21, Air conditioning.

**(e) Unsafe Condition**

This AD was prompted by reports of electrical shorts of the motor stator wiring burning a hole through the housing of the motor of the cabin air compressor (CAC). We are issuing this AD to prevent an electrical short from burning through the housing of the motor of the CAC. This condition, in combination with flammable fuel vapors, could result in a fire in the pack bay and consequent reduced controllability of the airplane.

**(f) Compliance**

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

**(g) Replacement of CAC Modules**

Within 5 years after the effective date of this AD, install modified inboard and outboard CAC modules on the left side and right side cabin air conditioning and temperature control system (CACTCS) packs, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin B787-81205-SB210055-00, Issue 001, dated March 12, 2015.

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

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as

appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (i) 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, modification, or alteration 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 method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (h)(4)(i) and (h)(4)(ii) of this AD apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

#### **(i) Related Information**

For more information about this AD, contact Eric Brown, Aerospace Engineer, Cabin Safety and Environmental Systems Branch, ANM-150S, FAA, Seattle ACO, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6476; fax: 425-917-6590; email: eric.m.brown@faa.gov.

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

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

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

(i) Boeing Alert Service Bulletin B787-81205-SB210055-00, Issue 001, dated March 12, 2015.

(ii) Reserved.

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>.

(4) You may view this 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.

(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 December 6, 2016.

Dionne Palermo,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



---

**2016-25-22 Viking Air Limited:** Amendment 39-18748; Docket No. FAA-2016-9527; Directorate Identifier 2016-CE-036-AD.

**(a) Effective Date**

This airworthiness directive (AD) becomes effective December 22, 2016.

**(b) Affected ADs**

This AD replaces AD 2016-19-08, Amendment 39-18657 (81 FR 64053, September 19, 2016) ("AD 2016-19-08").

**(c) Applicability**

This AD applies to Viking Air Limited Models DHC-2 Mk. I, DHC-2 Mk. II, and DHC-2 Mk. III airplanes, all serial numbers, certificated in any category.

**(d) Subject**

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

**(e) Reason**

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as corrosion of the elevator control rod and of the elevator actuating lever on the control column. We are issuing this AD to detect and correct corrosion and/or cracking of the elevator control rod assemblies and the elevator actuating lever, which if not detected and corrected, could cause these components to fail. This failure could result in loss of control.

**(f) Actions and Compliance**

Comply with this AD within the compliance times specified in paragraphs (g) through (m) of this AD, unless already done.

**(g) Initial Inspections**

Within the next 120 days after October 24, 2016 (the effective date retained from AD 2016-19-08) or within the next 100 hours time-in-service (TIS) after October 24, 2016 (the effective date retained from AD 2016-19-08), whichever occurs first, do the following inspections in accordance with section I. PLANNING INFORMATION, paragraph D. of Viking DHC-2 Beaver Service Bulletin Number: V2/0005, Revision "C", dated July 17, 2015:

(1) For airplanes with an installed elevator control rod assembly, part number (P/N) C2CF619A, do a detailed visual inspection of P/N C2CF619A for corrosion, cracking, and/or other damages.

(2) For airplanes with an installed elevator control rod assembly, P/N CT2CF1021-1, do a detailed visual inspection of P/N CT2CF1021-1 for corrosion, cracking, and/or other damages.

(3) For all airplanes, do a detailed visual inspection of the elevator actuating lever on the control column and the control column torque tube for corrosion, cracking and/or other damages.

#### **(h) Repetitive Inspections**

After each initial inspection required in paragraph (g) of this AD, at intervals not to exceed 400 hours TIS, repeat each inspection following section I. PLANNING INFORMATION, paragraph D.2. of Viking DHC-2 Beaver Service Bulletin Number: V2/0005, Revision "C", dated July 17, 2015.

#### **(i) Replacement/Repair for P/N C2CF619A**

(1) If corrosion, cracking, or other damages are found during the initial inspection required in paragraph (g)(1) of this AD or any of the repetitive inspections required in paragraph (h) of this AD, before further flight, replace P/N C2CF619A with P/N C2CF619A-11 following section I. PLANNING INFORMATION, paragraph D. of Viking DHC-2 Beaver Service Bulletin Number: V2/0005, Revision "C", dated July 17, 2015, or contact Viking Air Limited at the address specified in paragraph (q)(4) of this AD for an FAA-approved repair and incorporate the repair.

(2) Within the next 120 days after October 24, 2016 (the effective date retained from AD 2016-19-08) or within the next 100 hours TIS after October 24, 2016 (the effective date retained from AD 2016-19-08), whichever occurs first, you may replace P/N C2CF619A with P/N C2CF619A-11 instead of doing the initial inspection required in paragraph (g)(1) of this AD. Do the replacement following section I. PLANNING INFORMATION, paragraph D. of Viking DHC-2 Beaver Service Bulletin Number: V2/0005, Revision "C", dated July 17, 2015.

(3) After replacing P/N C2CF619A with P/N C2CF619A-11, you must still do the repetitive inspections of the elevator control rod assemblies as required in paragraph (h) of this AD.

#### **(j) Replacement/Repair for P/N CT2CF1021-1**

(1) If corrosion, cracking, or other damages are found during the initial inspection required in paragraph (g)(2) of this AD or any of the repetitive inspections required in paragraph (h) of this AD, before further flight, replace the elevator control rod assembly with P/N CT2CF1021-1 that has been inspected and is free of corrosion, cracking, or other damages following section I. PLANNING INFORMATION, paragraph D. of Viking DHC-2 Beaver Service Bulletin Number: V2/0005, Revision "C", dated July 17, 2015, or contact Viking Air Limited at the address specified in paragraph (q)(4) of this AD for an FAA-approved repair and incorporate the repair.

(2) After replacing or repairing P/N CT2CF1021-1, you must still do the repetitive inspections of the elevator control rod assemblies as required in paragraph (h) of this AD.

#### **(k) Repair of the Elevator Actuating Lever**

If corrosion, cracking, or other damages are found during the initial inspection required in paragraph (g)(3) of this AD and any of the repetitive inspections required in paragraph (h) of this AD, before further flight, contact Viking Air Limited at the address specified in paragraph (q)(4) of this AD for an FAA-approved repair and incorporate the repair.

#### **(l) Restrictions**

As of December 22, 2016 (the effective date of this AD), do not install P/N C2CF619A or C2CF619A-9 as a replacement part.

**(m) Life Limit for P/N C2CF619A**

As of October 24, 2016 (the effective date retained from AD 2016-19-08), elevator control rod assemblies, P/N C2CF619A, are life-limited to 15 years and must be replaced with P/N C2CF619A-11, which is not a life-limited part, at the following compliance time:

(1) As of October 24, 2016 (the effective date retained from AD 2016-19-08), if the age of the installed P/N C2CF619A is known, it must be replaced before exceeding the life limit or within the next 12 months after October 24, 2016 (the effective date retained from AD 2016-19-08), whichever occurs later.

(2) As of October 24, 2016 (the effective date retained from AD 2016-19-08), if the age of the installed P/N C2CF619A is not known, it must be replaced within the next 12 months after October 24, 2016 (the effective date retained from AD 2016-19-08).

**(n) Credit for Actions Accomplished in Accordance With Previous Service Information**

Credit will be given for the initial inspections required in paragraphs (g)(1) through (3) of this AD if they were done before October 24, 2016 (the effective date retained from AD 2016-19-08) following Viking Air Limited DHC-2 Beaver Service Bulletin Number: V2/0005, Revision 'NC', dated March 26, 2012; Viking Air Limited DHC-2 Beaver Service Bulletin Number: V2/0005, Revision 'A', dated November 7, 2014; or Viking Air Limited DHC-2 Beaver Service Bulletin Number: V2/0005, Revision 'B', dated March 4, 2015.

**(o) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Aziz Ahmed, Aerospace Engineer, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone: (516) 228-7329; fax: (516) 794-5531; email: aziz.ahmed@faa.gov.

(i) Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(ii) AMOCs approved for AD 2016-19-08, Amendment 39-18657 (81 FR 64053, September 19, 2016) are approved as AMOCs for this AD.

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

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

**(p) Related Information**

Refer to MCAI Transport Canada AD No. CF-2015-21, dated July 30, 2015; Viking Air Limited DHC-2 Beaver Service Bulletin Number: V2/0005, Revision 'NC', dated March 26, 2012; Viking Air Limited DHC-2 Beaver Service Bulletin Number: V2/0005, Revision 'A', dated November 7, 2014; Viking Air Limited DHC-2 Beaver Service Bulletin Number: V2/0005, Revision 'B', dated March 4, 2015; Temporary Revision No.: 2-38, dated March 4, 2015, of VIKING PSM NO.: 1-2-2, AIRCRAFT: DHC-2 BEAVER, SERIES: ALL, PUBLICATION: MAINTENANCE MANUAL; and Temporary Revision No.: 2T-14, dated March 4, 2015, of VIKING PSM NO.: 1-2T-2, AIRCRAFT: DHC-2 TURBO BEAVER, SERIES: ALL, PUBLICATION: MAINTENANCE MANUAL, for related information. You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9527.

**(q) Material Incorporated by Reference**

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

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

(3) The following service information was approved for IBR on October 24, 2016 (81 FR 64053, September 19, 2016).

- (i) Viking DHC-2 Beaver Service Bulletin Number: V2/0005, Revision "C", dated July 17, 2015.
- (ii) Reserved.

(4) For Viking Air Limited service information identified in this AD, contact Viking Air Limited Technical Support, 1959 De Havilland Way, Sidney, British Columbia, Canada, V8L 5V5; Fax: 250-656-0673; telephone: (North America) (800) 663-8444; email: [technical.support@vikingair.com](mailto:technical.support@vikingair.com); Internet: <http://www.vikingair.com/support/service-bulletins>.

(5) You may view this service information at FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148. It is also available on the Internet at <http://www.regulations.gov> by searching for locating Docket No. FAA-2016-9527.

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

Issued in Kansas City, Missouri on December 8, 2016.

Pat Mullen,  
Acting Manager, Small Airplane Directorate,  
Aircraft Certification Service.



---

**2016-25-23 Airbus:** Amendment 39-18749; Docket No. FAA-2016-9515; Directorate Identifier 2016-NM-181-AD.

**(a) Effective Date**

This AD becomes effective January 3, 2017.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Airbus Model A319-115 and -132 airplanes, and Model A320-214, -232, and -233 airplanes, certificated in any category, all manufacturer serial numbers on which Airbus modification 154327 has been embodied in production.

**(d) Subject**

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

**(e) Reason**

This AD was prompted by a report indicating that, for airplanes on which Airbus modification 154327 (which substitutes the pump fuel feed system from the center fuel tank with a jet pump transfer system) was done, the modified airplanes do not have electrical ground wires on the fuel level sensing control unit (FLSCU), which adversely affects gravity feeding operation. We are issuing this AD to prevent reduced fuel pressure at the engine inlet, potentially resulting in an uncommanded in-flight shutdown when flying at the fuel gravity feed ceiling levels.

**(f) Compliance**

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

**(g) Revision of the Airplane Flight Manual (AFM)**

(1) Within 30 days after the effective date of this AD, revise the Limitations section of the AFM by inserting a copy of Airbus A318/A319/A320/A321 Temporary Revision TR695, Issue 1.0, dated August 1, 2016; or Airbus A318/A319/A320/A321 Temporary Revision TR699, Issue 1.0, dated August 1, 2016; as applicable; and revise the Abnormal Procedures section of the AFM by inserting a copy of Airbus A318/A319/A320/A321 Temporary Revision TR700, Issue 1.0, dated August 1, 2016. These temporary revisions introduce a fuel limitation for certain types of fuel and a fuel gravity feed ceiling procedure for airplanes equipped with jet pumps. Thereafter, operate the airplane according to the limitation and procedure in the applicable temporary revision.

(2) When the information in Airbus A318/A319/A320/A321 Temporary Revision TR695, Issue 1.0, dated August 1, 2016; or Airbus A318/A319/A320/A321 Temporary Revision TR699, Issue 1.0, dated August 1, 2016; as applicable; and Airbus A318/A319/A320/A321 Temporary Revision TR700, Issue 1.0, dated August 1, 2016; has been included in the general revisions of the AFM, the general revisions may be inserted in the AFM, and the temporary revisions may be removed.

#### **(h) Special Flight Permits**

Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are not allowed.

#### **(i) Other FAA AD Provisions**

The following provisions also apply to this AD:

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

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

#### **(j) Related Information**

Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2016-0205, dated October 13, 2016, for related information. You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9515.

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

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

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

(i) Airbus A318/A319/A320/A321 Temporary Revision TR695, Issue 1.0, dated August 1, 2016.

(ii) Airbus A318/A319/A320/A321 Temporary Revision TR699, Issue 1.0, dated August 1, 2016.

(iii) Airbus A318/A319/A320/A321 Temporary Revision TR700, Issue 1.0, dated August 1, 2016.

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

(4) You may view this 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 December 2, 2016.

Michael Kaszycki,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



**2016-25-24 Airbus:** Amendment 39-18750; Docket No. FAA-2016-9509; Directorate Identifier 2016-NM-177-AD.

**(a) Effective Date**

This AD becomes effective January 3, 2017.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Airbus Model A319-111, A319-112, A319-113, A319-114, A319-115, A319-131, A319-132, A319-133, A320-211, A320-212, A320-214, A320-231, A320-232, A320-233, A320-251N, A320-271N, A321-111, A321-112, A321-131, A321-211, A321-212, A321-213, A321-231, and A321-232 airplanes, certificated in any category, manufacturer serial numbers (MSN) 5182, 5295, 5327, 5406, 5470, 5545, 5650, 5656, 5664, 5671, 5679, 5685, 5690, 5700, 5701, 5711, 5717, 5722, 5725, 5731, 5732, 5734, 5738, 5740, 5742, 5744, 5746, 5748, 5750 through 5752 inclusive, 5754 through 5756 inclusive, 5758 through 5760 inclusive, 5762, 5763, 5765 through 6100 inclusive, 6102 through 6285 inclusive, 6287 through 6418 inclusive, 6420 through 6463 inclusive, 6465 through 6619 inclusive, 6621 through 6641 inclusive, 6643 through 6672 inclusive, 6674 through 6719 inclusive, 6721 through 6771 inclusive, 6773 through 6828 inclusive, 6830 through 6832 inclusive, 6834 through 6838 inclusive, 6840 through 6867 inclusive, 6869 through 6903 inclusive, 6905, 6906, 6908 through 6913 inclusive, 6915 through 6919 inclusive, 6921 through 6944 inclusive, 6947 through 6951 inclusive, 6953 through 6966 inclusive, 6968 through 6972 inclusive, 6974, 6976 through 6992 inclusive, 6994 through 7000 inclusive, 7002 through 7010 inclusive, 7012, 7014 through 7032 inclusive, 7034 through 7045 inclusive, 7047 through 7050 inclusive, 7052, 7054 through 7059 inclusive, 7061 through 7071 inclusive, 7073 through 7078 inclusive, 7080, 7081, 7084 through 7093 inclusive, 7095 through 7098 inclusive, 7100, 7101, 7104, 7105, 7108 through 7110 inclusive, 7112 through 7121 inclusive, 7123, 7125, 7127, 7128, 7130, 7132, 7133, 7135, 7136, 7138 through 7140 inclusive, 7142 through 7146 inclusive, 7148, 7149, 7152 through 7156 inclusive, 7158, 7160, 7161, 7163 through 7167 inclusive, 7169 through 7171 inclusive, 7173, 7174, 7176, 7177, 7179, 7180, 7182 through 7184 inclusive, 7187, 7189, 7191, 7194, 7196 through 7200 inclusive, 7203, 7204, 7206, 7207, 7210, 7212 through 7225 inclusive, 7227, 7228, 7230, 7232, 7235, 7238, 7241 through 7244 inclusive, 7248, and 7261.

**(d) Subject**

Air Transport Association (ATA) of America Code 92, Electrical System Installation.

**(e) Reason**

This AD was prompted by reports of broken battery retaining rods. We are issuing this AD to detect and correct broken battery retaining rods, which, in the event of a hard landing or severe

turbulence, can cause the battery to detach from its housing, resulting in damage to other electrical equipment and surrounding structure. This condition could lead to loss of normal electrical power generation and subsequent inability to restore electrical power to essential airplane systems.

**(f) Compliance**

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

**(g) Repetitive Inspections**

Within 4 months after the effective date of this AD, and thereafter at intervals not to exceed 4 months, accomplish a general visual inspection of each battery retaining rod part number (P/N) D9241023700000, in accordance with the instructions of Airbus Alert Operators Transmission (AOT) A92N001-16, Rev 01, dated October 10, 2016.

**(h) Additional Inspections After Any Hard Landing or Any Flight in Severe Turbulence**

In addition to the inspections required by paragraph (g) of this AD, after any hard landing, or after any flight in severe turbulence: Before further flight, accomplish a general visual inspection of each battery retaining rod P/N D9241023700000, in accordance with the instructions of Airbus AOT A92N001-16, Rev 01, dated October 10, 2016.

**(i) Corrective Action**

If, during any general visual inspection required by paragraph (g) or (h) of this AD, as applicable, any battery retaining rod is found broken, before further flight, replace each affected battery retaining rod with a serviceable part using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA).

Note 1 to paragraph (i) of this AD: Additional guidance for the replacement of battery retaining rods can be found in Tasks 24-38-51-000-001-A, Removal of the Batteries, and 24-38-51-400-001-A, Installation of the Batteries, of the Airbus A319/A320/A321 Aircraft Maintenance Manual (AMM).

**(j) Provision Regarding Terminating Action**

Replacement of failed battery retaining rods on an airplane with serviceable parts, as required by paragraph (i) of this AD, does not constitute terminating action for the repetitive general visual inspections required by paragraphs (g) and (h) of this AD for that airplane.

**(k) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraphs (g) and (h) of this AD, if those actions were performed before the effective date of this AD using Airbus AOT A92N001-16, dated August 25, 2016.

**(l) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending

information directly to the International Branch, send it to ATTN: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone: 425-227-1405; fax: 425-227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or Airbus's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

### **(m) Special Flight Permits**

Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are not allowed.

### **(n) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2016-0204, dated October 13, 2016; corrected October 19, 2016; for related information. You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9509.

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

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

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

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

(i) Airbus Alert Operators Transmission (AOT) A92N001-16, Rev 01, dated October 10, 2016.

(ii) Reserved.

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

(4) You may view this 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 December 2, 2016.

Michael Kaszycki,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.