

**FEDERAL AVIATION ADMINISTRATION  
AIRWORTHINESS DIRECTIVES**

**LARGE AIRCRAFT**

**BIWEEKLY 2018-17**

*8/6/2018 - 8/19/2018*



Federal Aviation Administration  
Continued Operational Safety Policy Section, AIR-141  
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# LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
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Information Key: E – Emergency; COR – Correction; S – Supersedes; R – Replaces, A – Affects

## Biweekly 2018-01

2017-26-06		Rolls-Royce Corporation	AE 3007A, AE 3007A1, AE 3007A1/1, AE 3007A1/2, AE 3007A1/3, AE 3007A1P, AE 3007A1E, AE 3007A3, AE 3007C and 3007C1 turbofan engines
2017-26-07		The Boeing Company	757-200, -200CB, and -300 series airplanes
2017-26-08		ATR-GIE Avions de Transport Régional	ATR42-500 and ATR72-212A airplanes
2017-26-09		ATR-GIE Avions de Transport Régional	ATR42-500 and ATR72-212A airplanes
2017-26-10		The Boeing Company	757-200, -200PF, -200CB, and -300 series airplanes,
2018-01-01		The Boeing Company	MD-11 and MD-11F airplanes
2018-01-02	R 2017-02-03	The Boeing Company	767-200, -300, and -400ER series airplanes
2018-01-03		Airbus	A300, A310 airplanes
2018-01-04	R 2011-04-05	Airbus	A340 airplanes
2018-01-05		Fokker Services B.V.	F28 Mark 0070 and 0100 airplanes
2018-01-06		Fokker Services B.V.	F28 Mark 0070 and 0100 airplanes

## Biweekly 2018-02

2018-01-07		Airbus	A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, and C4-605R Variant F airplanes
2018-01-08		The Boeing Company	737-100, -200, -200C, -300, -400, and -500 series airplanes
2018-01-09	R 95-25-02	Fokker Services B.V.	F28 Mark 0100 series airplanes
2018-01-10	R 2011-14-10	Airbus	A330-342 airplanes
2018-01-11		Airbus	A319-115 and A319-133 airplanes
2018-02-03		Fokker Services B.V.	F28 Mark 0070 and Mark 0100 series airplanes
2018-02-06		Dassault Aviation	FALCON 7X, FALCON 2000EX, FALCON 900EX airplanes

## Biweekly 2018-03

2018-02-09	R 2008-06-20 R1	Fokker Services B.V.	F28 Mark 1000, 2000, 3000, and 4000 airplanes
2018-02-10		Pratt & Whitney Division	PW4074, PW4074D, PW4077, PW4077D, PW4084D, PW4090, and PW4090-3 turbofan engines
2018-02-11		Airbus	A330-301, -321, -322 and A330-342 airplanes
2018-02-12	R 2016-02-01	Airbus	A320-211, -212, and -231 airplanes
2018-02-15	S 2007-08-06	British Aerospace Regional Aircraft	HP.137 Jetstream Mk.1, Jetstream Series 200 and 3101, and Jetstream Model 3201 airplanes
2018-02-16		Bombardier, Inc.	DHC-8-400, -401, and -402 airplanes

## Biweekly 2018-04

2018-02-17	R 2012-12-12 R 2013-16-26	Airbus	A330, A340 airplanes
2018-02-18		Airbus	A318, A319, A320, A321 airplanes
2018-02-20		The Boeing Company	777-200, -200LR, -300, and -300ER series airplanes
2018-03-02		328 Support Services GmbH	328-300 airplanes
2018-03-04		Rosemount Aerospace, Inc.	Model 851AK pitot probes
2018-03-06	R 2015-02-18	Airbus	A330-201, -202, -203, -301, -302, and -303 airplanes
2018-03-07		Airbus	A330-202, -203, -223, and -243; A340-211, -212, -311, and -313 airplanes
2018-03-08	R 2005-19-28	Airbus	A330-301, -321, -322, and -342; A340-211, -212, -213, -311, -312, and -313 airplanes
2018-03-09		Airbus	A321-211 and -231 airplanes
2018-03-10		The Boeing Company	757-300 series airplanes
2018-03-11		Bombardier, Inc.	CL-600-2C10, -2D15, -2D24, -2E25 airplanes
2018-03-12		Airbus	A318, A319, A320, A321 airplanes
2018-03-13		General Electric Company	CT7-5A2, CT7-5A3, CT7-7A, CT7-7A1, CT7-9B, CT7-9B1, CT7-9B2, CT7-9C and CT7-9C3 model turboprop engines
2018-03-19		Dassault Aviation	FALCON 7X airplanes,
2018-03-20		Airbus	A330-301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes
2018-03-21		Airbus	A330-202, -203, -223, and -243 airplanes
2018-03-22		GE Aviation Czech s.r.o.	M601D-11, M601E-11, M601E-11A, M601E-11AS, M601E-11S, and M601F turboprop engines
2018-04-01		Airbus	A320-271N, A321-271N, and A321-272N airplanes

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AD No.	Information	Manufacturer	Applicability
Information Key: E – Emergency; COR – Correction; S – Supersedes; R – Replaces, A – Affects			
<b>Biweekly 2018-05</b>			
2017-06-06	R 2012-22-15	Fokker Services B.V.	F28 Mark 0070 and Mark 0100 airplanes
2018-04-03		Fokker Services B.V.	F28 Mark 0100 airplanes
2018-04-04		Bombardier, Inc.	CL-600-2C10, -2D15, -2D24, -2E25 airplanes
2018-04-05		Airbus	A319-112, A319-115, A320-214, A320-232, and A321-211 airplanes
2018-04-06	R 2012-12-05	The Boeing Company	737-100, -200, -200C, -300, -400, and -500 series airplanes
2018-04-07		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 airplanes
2018-04-08		The Boeing Company	737-100, -200, -200C, -300, -400, and -500 series airplanes
<b>Biweekly 2018-06</b>			
2018-02-17	R 2012-12-12	Airbus	A330, A340 airplanes
2018-04-12		The Boeing Company	737-100, -200, -200C, -300, -400, -500 series airplanes
2018-04-13		Honeywell International Inc.	AS907-1-1A model turbofan engines
2018-05-04		Airbus	A318, A319, A320, A321 airplanes
2018-05-05		Dassault Aviation	MYSTERE-FALCON 900, FALCON 900EX, FALCON 2000, and FALCON 2000EX airplanes
2018-05-06	R 2016-09-12	The Boeing Company	787-8 and 787-9 airplanes
2018-05-07		The Boeing Company	787-8 and 787-9 airplanes
2018-05-11		Airbus	A320-214, -251N, and -271N airplanes
2018-06-03	R 2009-18-16	Airbus	A310-203, -204, -221, -222, -304, -322, -324 and -325 airplanes
2018-06-06		Bombardier, Inc.	CL-600-2B16 (CL-604 Variant) airplanes
2018-06-08		The Boeing Company	757-200 series airplanes
<b>Biweekly 2018-07</b>			
2018-06-01		Airbus	A318, A319, A320, A321 airplanes
2018-06-02		Bombardier, Inc.	CL-600-2B19, -2C10, -2D15, -2D24 airplanes
2018-06-04		Airbus	A318, A319, A320, A321 airplanes
2018-06-05		The Boeing Company	737-300 and -500 series airplanes
2018-06-07		The Boeing Company	757-200, -200CB, and -300 series airplanes
<b>Biweekly 2018-08</b>			
2018-07-05		General Electric Company	CF6-80A, -80A1, -80A2, and -80A3 turbofan engines
2018-07-06		The Boeing Company	747-8 series airplanes
2018-07-07		Dassault Aviation	FAN JET FALCON, FAN JET FALCON SERIES D, E, F, and G; MYSTERE-FALCON 20-C5, 20-D5, 20-E5, and 20-F5 airplanes
2018-07-09		Bombardier, Inc.	CL-600-2C10, -2D15, -2D24, -2E25 airplanes
2018-07-10		Embraer S.A.	EMB-500 and EMB-505 airplanes
2018-07-11		Fokker Services B.V.	F28 Mark 0100 airplanes
2018-07-12		Airbus	A350-941 airplanes
<b>Biweekly 2018-09</b>			
2018-07-18	R 2015-19-12	The Boeing Company	767-200, -300, -300F, and -400ER series airplanes
2018-07-19		The Boeing Company	787-8 and 787-9 airplanes
2018-07-20	R 2014-03-07	The Boeing Company	MD-11 and MD-11F airplanes
2018-07-21	R 2005-12-16	Fokker Services B.V.	F28 Mark 0100 airplanes
2018-08-02		Rolls-Royce plc	Trent 1000-A2, Trent 1000-AE2, Trent 1000-C2, Trent 1000-CE2, Trent 1000-D2, Trent 1000-E2, Trent 1000-G2, Trent 1000-H2, Trent 1000-J2, Trent 1000-K2, and Trent 1000-L2 turbofan engines
2018-08-03		The Boeing Company	787-8 and 787-9 airplanes
2018-09-05		The Boeing Company	787-8 and 787-9 airplanes
2018-09-51		CFM International S.A.	CFM56-7B engines
<b>Biweekly 2018-10</b>			
2018-09-01		The Boeing Company	737-100, -200, -200C, -300, -400, and -500 series airplanes
2018-09-02	R 99-23-16	Airbus	A330 and A340 airplanes
2018-09-03	R 2009-11-08	Airbus	A330-202, -223, -243, -301, -322, and -342 airplanes
2018-09-04		Gulfstream Aerospace Corporation	G-IV, GIV-X airplanes

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2018-09-07		Rolls-Royce plc	Viper Mk. 601-22 engines
2018-09-08		The Boeing Company	737-200, -300, -400, and -500 series airplanes
2018-09-09		Airbus	A318, A319, A320, and A321 airplanes
2018-09-10		CFM International S.A.	CFM56-7B engines
2018-09-11		Airbus	A330 and A340 airplanes
2018-09-15	R 2016-25-18	Bombardier, Inc.	BD-700-1A10 and BD-700-1A11 airplanes
2018-09-16	R 2015-15-13	Airbus	A319, A320, and A321 airplanes
2018-10-02		The Boeing Company	787-8 airplanes
<b>Biweekly 2018-11</b>			
2018-09-09	Republication	Airbus	A318, A319, A320, and A321 airplanes
2018-09-12		The Boeing Company	747-200B, 747-300, and 747-400 series airplanes
2018-09-13		The Boeing Company	737-100, -200, -200C, -300, -400, and -500 series airplanes
2018-09-14	R 2016-11-02	Bombardier, Inc.	CL-600-2C10, -2D15, -2D24, and -2E25 airplanes
2018-09-17		Bombardier, Inc.	CL-600-1A11, -2A12, and -2B16 airplanes
2018-09-51		CFM International S.A.	CFM56-7B engines
2018-10-05	R 2016-23-01	Airbus	A310-203, -204, -221, -222, -304, -322, -324, and -325 airplanes
2018-10-08	R 2016-09-05	The Boeing Company	717-200 airplanes
2018-10-11	R 2018-09-10	CFM International S.A.	CFM56-7B engines
2018-10-12		The Boeing Company	737-100, -200, -200C, -300, -400, and -500 series airplanes
2018-11-02		Lockheed Martin Corporation/Lockheed Martin Aeronautics Company	188A and 188C airplanes; and P3A, P-3A, and P3B airplanes
<b>Biweekly 2018-12</b>			
2018-11-04		Aircraft Industries a.s.	L 410 UVP-E20 and L 410 UVP-E20 CARGO airplanes
2018-11-06		Airbus	A310-203, -221, -222, -304, -322, -324, and -325 airplanes
2018-11-07		Saab AB, Saab Aeronautics	SAAB 2000 airplanes
2018-11-08		The Boeing Company	767-200 and -300 series airplanes
2018-11-09	R 2014-02-01	Bombardier, Inc.	CL-600-2C10, -2D15, -2D24 airplanes
2018-11-10	R 2017-01-07	Dassault Aviation	FAN JET FALCON, FAN JET FALCON SERIES C, D, E, F, and G; MYSTERE-FALCON 200, 20-C5, 20-D5, 20-E5, 20-F5, and 50 airplanes
2018-11-11		Airbus	A350-941 airplanes
2018-11-12		Bombardier, Inc.	CL-600-2C10, -2D15, -2D24, -2E25 airplanes
2018-11-13		The Boeing Company	787-8 airplanes
2018-11-14		The Boeing Company	767-300 and -300F series airplanes
2018-11-15		Airbus	A320-271N; A321-271N, -271NX, -272N and -272NX airplanes
2018-12-02		Airbus	A318, A319, A320, A321 airplanes
2018-12-04		The Boeing Company	777-300ER series airplanes
2018-12-05		The Boeing Company	737-100, -200, -200C, -300, -400, and -500 series airplanes
<b>Biweekly 2018-13</b>			
2016-19-13	COR	Dassault Aviation	See AD; FALCON 2000 was originally missing from the applicability table in AD Biweekly 2016-22.
2018-09-04	COR	Gulfstream Aerospace Corporation	G-IV, GIV-X airplanes
2018-11-16		Engine Alliance	GP7270, GP7272, and GP7277 model turbofan engines
2018-12-06		The Boeing Company	787-8 and 787-9 airplanes
2018-12-07	R 2015-24-06	Gulfstream Aerospace Corporation	GVI airplanes
2018-13-02		Pratt & Whitney Division	PW4052, PW4056, PW4060, PW4062, PW4062A, PW4152, PW4156A, PW4158, PW4460, and PW4462 turbofan engine models
2018-13-04		Bombardier, Inc.	BD-100-1A10 airplanes
<b>Biweekly 2018-14</b>			
2018-13-03		International Aero Engines	PW1133G-JM, PW1133GA-JM, PW1130G-JM, PW1127G-JM, PW1127GA-JM, PW1127G1-JM, PW1124G-JM, PW1124G1-JM, and PW1122G-JM turbofan engines

## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability	
Information Key: E – Emergency; COR – Correction; S – Supersedes; R – Replaces, A – Affects				
<b>Biweekly 2018-15</b>				
2018-12-08	R 2017-07-07	Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343; A340-212, -213, -312, and -313 airplanes	
2018-13-06	R 2016-01-11	The Boeing Company	767-300 and -300F series airplanes	
2018-13-08		Airbus	A318, A319, A320, A321 airplanes	
2018-14-02		The Boeing Company	777-200, -200LR, -300, and -300ER series airplanes	
2018-14-03		Bombardier, Inc.	CL-600-2C10, -2D15, -2D24, -2E25 airplanes	
2018-14-04		Airbus	A330, A340 airplanes	
2018-14-05		Bombardier, Inc.	BD-100-1A10 airplanes	
2018-14-08		A 2016-11-03	The Boeing Company	777-200LR series airplanes
2018-14-09		Airbus	A318, A319, A320, A321 airplanes	
2018-14-11		ATR-GIE Avions de Transport Régional	ATR72-101, -102, -201, -202, -211, -212, and -212A airplanes	
<b>Biweekly 2018-16</b>				
2018-07-04		The Boeing Company	DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), MD-88, and MD-90-30 airplanes	
2018-13-07		Rolls-Royce plc	Trent 1000-A, Trent 1000-C, Trent 1000-D, Trent 1000-E, Trent 1000-G, and Trent 1000-H turbofan engines	
2018-14-12		General Electric Company	GEnx-1B64, -1B64/P1, -1B64/P2, -1B67, -1B67/P1, -1B67/P2, -1B70, -1B70/75/P1, -1B70/75/P2, -1B70/P1, -1B70/P2, -1B70C/P1, -1B70C/P2, -1B74/75/P1, and -1B74/75/P2 engines	
2018-15-01		Rolls-Royce plc	Trent 1000-A, Trent 1000-C, Trent 1000-D, Trent 1000-E, Trent 1000-G, Trent 1000-H, Trent 1000-A2, Trent 1000-C2, Trent 1000-D2, Trent 1000-E2, Trent 1000-G2, Trent 1000-H2, Trent 1000-J2, Trent 1000-K2, and Trent 1000-L2 engines	
2018-15-03		The Boeing Company	787 series airplanes	
2018-15-05		Airbus SAS	A319-115, -132, and -133 airplanes; and Model A320-214, -216, -232, -233, -251N, and -271N airplanes	
2018-16-05		The Boeing Company	757-200, -200PF, -200CB, and -300 series airplanes	
2018-16-07		General Electric Company	GEnx-1B54, -1B58, -1B64, -1B67, -1B70, -1B54/P1, -1B58/P1, -1B64/P1, -1B67/P1, -1B70/P1, -1B54/P2, -1B58/P2, -1B64/P2, -1B67/P2, -1B70/P2, -1B70C/P1, -1B70/72/P1, -1B70/75/P1, -1B74/75/P1, -1B75/P1, -1B70C/P2, -1B70/72/P2, -1B70/75/P2, -1B74/75/P2, -1B75/P2, -1B76/P2, -1B76A/P2, -1B78/P2, -2B67, -2B67B, and -2B67/P turbofan engines	
<b>Biweekly 2018-17</b>				
2018-16-02		Airbus SAS	A318, A319, A320, and A321 airplanes	
2018-16-03		Airbus SAS	A319-133 and A321-232 airplanes	
2018-16-04		Airbus SAS	A318, A319, A320, and A321 airplanes	
2018-16-06		The Boeing Company	747-100, -100B, -100B SUD, -200B, -200C, -200F, -300, -400, -400D, 747SP, and 747SR series; 747-8 airplanes	
2018-16-12		Airbus	A319, A320, and A321 airplanes	
2018-17-02		Bombardier, Inc.	CL-600-1A11, -2A12, -2B16 airplanes	
2018-17-03		The Boeing Company	787-8 and 787-9 airplanes	
2018-17-04		Roll-Royce Corporation	AE 2100D2A, AE 2100D3 turboprop engines; AE 3007A2 turbofan engines	
2018-17-05		Airbus SAS	A350-941 and -1041 airplanes	
2018-17-06		Fokker Services B.V.	F28 Mark 0070 and 0100 airplanes	
2018-17-07	R 2017-24-01	ATR-GIE Avions de Transport Régional	ATR42-500 and ATR72-212A airplanes	



**2018-16-02 Airbus SAS:** Amendment 39-19342; Docket No. FAA-2018-0165; Product Identifier 2017-NM-122-AD.

**(a) Effective Date**

This AD is effective September 13, 2018.

**(b) Affected ADs**

This AD affects AD 2016-14-09, Amendment 39-18590 (81 FR 44989, July 12, 2016) (“AD 2016-14-09”); and AD 2017-04-10, Amendment 39-18805 (82 FR 11791, February 27, 2017) (“AD 2017-04-10”).

**(c) Applicability**

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

- (1) Model A318-111 and -112 airplanes.
- (2) Model A319-111, -112, -113, -114, and -115 airplanes.
- (3) Model A320-211, -212, -214, and -216 airplanes.
- (4) Model A321-111, -112, -211, -212, and -213 airplanes.

**(d) Subject**

Air Transport Association (ATA) of America Code 71, Powerplant.

**(e) Reason**

This AD was prompted by a report of a production quality deficiency on the inner retainer installed on link assemblies of the aft engine mount, which could result in failure of the retainer. We are issuing this AD to address non-conforming retainers of the aft engine mount. This condition could result in loss of the locking feature of the nuts of the inner and outer pins; loss of the pins will result in the aft mount engine link no longer being secured to the aft engine mount, possibly resulting in damage to the airplane.

**(f) Compliance**

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

**(g) Definitions**

(1) For the purpose of this AD: A Group 1 airplane has an aft engine mount assembly installed, having a part number (P/N) identified as “Old P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD. A Group 2 airplane does not have any aft engine mount assembly installed having

a part number identified as “Old P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD.

**Figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD –**

*Part re-identification*

<b>Old P/N</b>	<b>New P/N</b>
238-0230-11	238M0230-11
238-0230-15	238M0230-15
238-0230-5	238M0230-5
642-2300-3	642-2300-11

(2) For the purpose of this AD, a 4-lugs engine is a CFM56-5A1, CFM56-5A3, CFM56-5A4, CFM56-5A4/F, CFM56-5A5, or CFM56-5A5/F engine, fitted with a turbine rear frame (TRF) having a part number as identified in figure 2 to paragraph (g)(2) of this AD.

**Figure 2 to paragraph (g)(2) of this AD – TRF with 4-lugs configuration**

<b>Part Number</b>
336-031-615-0
336-031-617-0
336-031-618-0
336-031-621-0
336-031-650-0
336-031-651-0
336-031-652-0
336-031-653-0
336-031-660-0
336-031-661-0
336-031-662-0
336-031-663-0
336-031-670-0
336-031-671-0
336-031-672-0
336-031-673-0
336-031-640-0
336-031-642-0

**(h) Modification**

For Group 1 airplanes: Within 48 months after the effective date of this AD, except for 4-lugs engines, modify the aft engine mount assembly, having a part number identified as “Old P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD, and re-identify it with the corresponding part number identified as “New P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin

A320-71-1071, Revision 01, dated October 17, 2017; or Goodrich Aerostructures Service Bulletin RA32071-164, Revision 1, dated July 19, 2017.

### **(i) Other Acceptable Method of Compliance**

Replacement on an airplane of each aft engine mount assembly, identified as “Old P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD, with a corresponding aft engine mount assembly, identified as “New P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD, is an acceptable method to comply with the requirements of paragraph (h) of this AD for that airplane.

### **(j) Identification of Certain Airplanes That Do Not Have Affected Parts**

An airplane on which Airbus Modification 158435 has been embodied in production and on which it can be positively determined that no aft engine mount assembly, identified as “Old P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD, is installed, is considered a Group 2 airplane. A review of airplane maintenance records is acceptable to make this determination, if it can be conclusively determined that no aft engine mount assembly identified as “Old P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD is installed. Group 2 airplanes are not affected by the requirements of paragraph (h) of this AD.

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

(1) For Group 1 airplanes: Do not install an aft engine mount assembly identified as “Old P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD on any airplane after modification of the airplane as required by paragraph (h) of this AD, or after any replacement specified in paragraph (i) of this AD.

(2) For Group 2 airplanes: As of the effective date of this AD, do not install an aft engine mount assembly identified as “Old P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD on any airplane.

(3) For airplanes equipped with a 4-lugs engine (left-hand (LH) or right-hand (RH) side): As of the effective date of this AD, do not modify any aft engine mount assembly identified as “Old P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD, as required by paragraph (h) of this AD, and do not install on an affected engine pylon (LH or RH) any aft engine mount assembly identified as “New P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD.

### **(l) 4-Lugs Engine Installation**

(1) From the effective date of this AD, it is allowed to install or reinstall a 4-lugs engine on an airplane (LH or RH) provided that the airplane is equipped with an aft engine mount assembly identified as “Old P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD on the affected engine pylon (LH or RH).

(2) For airplanes equipped with a 4-lugs engine (LH or RH), and on which, prior to the effective date of this AD, an aft engine mount assembly identified as “New P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD has been installed on the affected engine pylon (LH or RH), or on which the aft engine part assembly has been modified as specified in paragraph (h) of this AD: Within 30 days after the effective date of this AD, obtain repair instructions using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA), and accomplish those instructions accordingly. If approved by the DOA, the approval must include the DOA-authorized signature.

**(m) Terminating Action and Method of Compliance**

(1) Modification of an airplane as required by paragraph (h) of this AD, or as specified in paragraph (i) of this AD, constitutes terminating action for the repetitive detailed inspections required by paragraph (l) of AD 2016-14-09 for that airplane.

(2) Modification of an airplane as required by paragraph (h) of this AD, or as specified in paragraph (i) of this AD, is a method of compliance with the requirements of paragraph (g) of AD 2017-04-10 for that airplane.

**(n) Credit for Previous Actions**

This paragraph provides credit for the actions specified in paragraph (h) of this AD, if those actions were performed before the effective date of this AD using Airbus Service Bulletin A320-71-1071, dated November 8, 2016, and the actions were not performed on 4-lugs engines.

**(o) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Section, Transport Standards Branch, 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 Section, send it to the attention of the person identified in paragraph (q)(2) of this AD. 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 Section, Transport Standards Branch, FAA; or EASA; or Airbus SAS' EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(3) Required for Compliance (RC): If any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified 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 procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

**(p) 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.

**(q) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2017-0251 dated December 15, 2017, 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-2018-0165.

(2) For more information about this AD, contact Sanjay Ralhan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3223.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (r)(3) and (r)(5) of this AD.

**(r) 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 Service Bulletin A320-71-1071, Revision 01, dated October 17, 2017.

(ii) Goodrich Aerostructures Service Bulletin RA32071-164, Revision 1, dated July 19, 2017.

(3) For Airbus SAS service information identified in this AD, contact Airbus SAS, Airworthiness Office–EIAS, Rond-Point Emile Dewoitine No: 2, 31700 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) For Goodrich Aerospace service information identified in this AD, contact Goodrich Corporation, Aerostructures, 850 Lagoon Drive, Chula Vista, CA 91910-2098; phone: 619-691-2719; email: [jan.lewis@goodrich.com](mailto:jan.lewis@goodrich.com); internet: <http://www.goodrich.com/TechPubs>.

(5) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(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 Des Moines, Washington, on July 23, 2018.

James Cashdollar,  
Acting Director, System Oversight Division,  
Aircraft Certification Service.



**2018-16-03 Airbus SAS:** Amendment 39-19343; Docket No. FAA-2018-0640; Product Identifier 2018-NM-075-AD.

**(a) Effective Date**

This AD becomes effective August 23, 2018.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Airbus SAS Model A319-133 airplanes and Model A321-232 airplanes, certificated in any category, all manufacturer serial numbers.

**(d) Subject**

Air Transport Association (ATA) of America Code 71, Powerplant.

**(e) Reason**

This AD was prompted by reports of in-service engine fan cowl door (FCD) losses, and the development of a new FCD front latch and keeper assembly that addresses this unsafe condition. We are issuing this AD to address in-flight loss of an engine FCD and possible consequent damage to the airplane.

**(f) Compliance**

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

**(g) Modification**

Within 36 months after the effective date of this AD, do the actions specified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-71-1069, Revision 01, including Appendix 01, dated April 28, 2016.

(1) Modify the left-hand and right-hand engine FCDs on engines 1 and 2.

(2) Install a placard that specifies the FCD keys stowage location in the flight deck on the box located at the bottom of panel 120VU or at the bottom of the coat stowage, as applicable to airplane configuration.

(3) Re-identify both engine FCDs with the new part numbers, as specified in figure 1 to paragraphs (g), (j), and (k) of this AD.

**Figure 1 to paragraphs (g), (j), and (k) of this AD – FCD Part Number Change**

<b>Door Position</b>	<b>Old Part Number</b>	<b>New Part Number</b>
Left-Hand Side	740-4000-501	740-4000-9501
	740-4000-503	740-4000-9503
	745-4000-501	745-4000-513
	745-4000-503	745-4000-515
	745-4000-505	745-4000-517
Right-Hand Side	740-4000-502	740-4000-9502
	740-4000-504	740-4000-9504
	740-4000-506	740-4000-9506
	740-4000-508	740-4000-9508
	745-4000-502	745-4000-9502
	745-4000-504	745-4000-9504
	745-4000-506	745-4000-9506
	745-4000-508	745-4000-514
	745-4000-510	745-4000-516
	745-4000-512	745-4000-518

**(h) Missing FCD Keys or Placard**

Flights with one or both FCD keys missing from the stowage location in the flight deck, or with the placard (that specifies the FCD keys stowage location) missing or damaged, are permitted for a period not to exceed 10 calendar days from the date of discovery.

**(i) Alternative Location of FCD Keys and Placard**

As an option to paragraph (g)(2) of this AD, an alternative location for the key stowage in the flight deck and installation of a placard for identification of that stowage location are permitted as specified in the operator's FAA-accepted maintenance or inspection program, provided the keys can be retrieved from that flight deck location when needed and the placard installation is done within 36 months after the effective date of this AD.

**(j) Optional Compliance by Replacement or Installation**

(1) Replacing an engine FCD having a part number listed as “Old Part Number” in figure 1 to paragraphs (g), (j), and (k) of this AD with an FCD having the corresponding part number listed as “New Part Number” in figure 1 to paragraphs (g), (j), and (k) of this AD is an acceptable method of compliance with the requirements of paragraphs (g)(1) and (g)(3) of this AD for that engine FCD only.

(2) An airplane on which Airbus Modification 157516 has been embodied in production is compliant with the requirements of paragraphs (g)(1) and (g)(3) of this AD, provided no engine FCD having a part number identified as “Old Part Number” in figure 1 to paragraphs (g), (j), and (k) of this AD is installed on that airplane.

(3) An airplane on which Airbus Modification 157718 has been embodied in production is compliant with the requirements of paragraph (g)(2) of this AD.

(4) Installation on an engine of a right-hand and left-hand engine FCD having a part number approved after the effective date of this AD is a method of compliance with the requirements of

paragraphs (g)(1) and (g)(3) of this AD for that engine only, provided the part number is approved, and the installation is accomplished using a method approved by the Manager, International Section, Transport Standards Branch, 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.

#### **(k) Parts Installation Limitations**

(1) For an airplane with an engine FCD installed having a part number identified as “Old Part Number” in figure 1 to paragraphs (g), (j), and (k) of this AD: After modification of that airplane as required by paragraph (g) of this AD, do not install an engine FCD, having a part number identified as “Old Part Number” in figure 1 to paragraphs (g), (j), and (k) of this AD.

(2) For an airplane that does not have an engine FCD installed having a part number identified as “Old Part Number” in figure 1 to paragraphs (g), (j), and (k) of this AD: On or after the effective date of this AD, do not install an engine FCD having a part number identified as “Old Part Number” in figure 1 to paragraphs (g), (j), and (k) of this AD.

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

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Airbus Service Bulletin A320-71-1069, dated December 18, 2015.

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

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Section, Transport Standards Branch, 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 Section, send it to the attention of the person identified in paragraph (n)(2) of this AD. 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 Section, Transport Standards Branch, FAA; or EASA; or Airbus's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

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

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2016-0053, dated March 14, 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-2018-0640.

(2) For more information about this AD, contact Sanjay Ralhan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3223.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (o)(4) and (o)(5) 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.

(3) The following service information was approved for IBR on August 3, 2017 (82 FR 29371, June 29, 2017).

(i) Airbus Service Bulletin A320-71-1069, Revision 01, including Appendix 01, dated April 28, 2016.

(ii) Reserved.

(4) For service information identified in this AD, contact Airbus SAS, Airworthiness Office–EIAS, Rond-Point Emile Dewoitine No: 2, 31700 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 Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(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 Des Moines, Washington, on July 23, 2018.

James Cashdollar,  
Acting Director, System Oversight Division,  
Aircraft Certification Service.



**2018-16-04 Airbus SAS:** Amendment 39-19344; Docket No. FAA-2018-0168; Product Identifier 2017-NM-135-AD.

**(a) Effective Date**

This AD is effective September 14, 2018.

**(b) Affected ADs**

This AD affects AD 2017-19-24, Amendment 39-19054 (82 FR 44900, September 27, 2017) (“AD 2017-19-24”).

**(c) Applicability**

This AD applies to the Airbus SAS airplanes identified in paragraphs (c)(1) through (c)(4) of this AD, certificated in any category, with an original certificate of airworthiness or original export certificate of airworthiness issued on or before April 6, 2017.

(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, -216, -231, -232, -233, -251N, and -271N airplanes.

(4) Model A321-111, -112, -131, -211, -212, -213, -231, -232, -251N, -253N, and -271N airplanes.

**(d) Subject**

Air Transport Association (ATA) of America Code 05, Time Limits/Maintenance Checks.

**(e) Reason**

This AD was prompted by a revision of an airworthiness limitations document that specifies more restrictive maintenance requirements and airworthiness limitations. We are issuing this AD to mitigate the risks associated with the effects of aging on airplane systems. Such effects could change system characteristics, leading to an increased potential for failure of certain life-limited parts, and reduced structural integrity or controllability of the airplane.

**(f) Compliance**

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

**(g) Revision of Maintenance or Inspection Program**

Within 90 days after the effective date of this AD, revise the maintenance or inspection program, as applicable, to incorporate Airbus SAS A318/A319/A320/A321 Airworthiness Limitations Section (ALS) Part 4, “System Equipment Maintenance Requirements (SEMR),” Revision 05, dated April 6,

2017. The initial compliance time for doing the revised actions is at the applicable time specified in Airbus SAS A318/A319/A320/A321 ALS Part 4, "System Equipment Maintenance Requirements (SEMR)," Revision 05, dated April 6, 2017.

**(h) No Alternative Actions or Intervals**

After the maintenance or inspection program has been revised as required by paragraph (g) of this AD, no alternative actions (e.g., inspections) or intervals may be used unless the actions and intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (j)(1) of this AD.

**(i) Terminating Action for AD 2017-19-24**

Accomplishing the actions required by this AD terminates all requirements of AD 2017-19-24.

**(j) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Section, Transport Standards Branch, 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 Section, send it to the attention of the person identified in paragraph (k)(2) of this AD. 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 Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

**(k) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2017-0170, dated September 7, 2017, 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-2018-0168.

(2) For more information about this AD, contact Sanjay Ralhan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3223.

**(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 this AD specifies otherwise.

(i) Airbus SAS A318/A319/A320/A321 Airworthiness Limitations Section (ALS) Part 4, "System Equipment Maintenance Requirements (SEMR)," Revision 05, dated April 6, 2017.

(ii) Reserved.

(3) For service information identified in this AD, contact Airbus SAS, Airworthiness Office–EIAS, Rond-Point Emile Dewoitine No: 2, 31700 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 Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(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 Des Moines, Washington, on July 23, 2018.

James Cashdollar,  
Acting Director, System Oversight Division,  
Aircraft Certification Service.



**2018-16-06 The Boeing Company:** Amendment 39-19346; Docket No. FAA-2018-0276; Product Identifier 2017-NM-079-AD.

**(a) Effective Date**

This AD is effective September 12, 2018.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to The Boeing Company airplanes, certificated in any category, as identified in paragraphs (c)(1), (c)(2), and (c)(3) of this AD.

(1) Model 747-100, -100B, -100B SUD, -200B, -200C, -200F, -300, -400, -400D, 747SP, and 747SR series airplanes, as identified in Boeing Special Attention Service Bulletin 747-53-2877, dated August 5, 2014.

(2) Model 747-400, -400D, and 747-8 series airplanes, as identified in Boeing Special Attention Service Bulletin 747-25-3646, Revision 1, dated August 2, 2017.

(3) Model 747-100, -100B, -100B SUD, -200B, -300, 747SP, and 747SR series airplanes, as identified in Boeing Special Attention Service Bulletin 747-25-3692, dated June 22, 2016.

**(d) Subject**

Air Transport Association (ATA) of America Code 25, Equipment/furnishings; 53, Fuselage.

**(e) Unsafe Condition**

This AD was prompted by reports indicating that additional areas of Boeing Material Specification (BMS) 8-39 flexible urethane foam were found during an inspection required by a related AD. The degradation of the foam increases the potential for an uncontrolled fire below the passenger compartment floor and other locations outside the areas covered by smoke detection and fire protection systems. We are issuing this AD to detect and replace BMS 8-39 flexible urethane foam in certain areas, which, if exposed to an ignition source, could cause an uncontrolled fire leading to loss of control of the airplane.

**(f) Compliance**

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

### **(g) Required Actions**

Within 72 months after the effective date of this AD, do all actions identified as “RC” (required for compliance) in, and in accordance with, the Accomplishment Instructions of the applicable service information identified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD.

(1) For airplanes identified in paragraph (c)(1) of this AD: Boeing Special Attention Service Bulletin 747-53-2877, dated August 5, 2014.

(2) For airplanes identified in paragraph (c)(2) of this AD: Boeing Special Attention Service Bulletin 747-25-3646, Revision 1, dated August 2, 2017.

(3) For airplanes identified in paragraph (c)(3) of this AD: Boeing Special Attention Service Bulletin 747-25-3692, dated June 22, 2016.

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

This paragraph provides credit for the actions specified in paragraph (g)(2) of this AD, if those actions were performed before the effective date of this AD using Boeing Special Attention Service Bulletin 747-25-3646, dated June 19, 2015.

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

(1) The Manager, Seattle ACO Branch, 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 certification office, send it to the attention of the person identified in paragraph (j)(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) 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 Branch, 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) For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (i)(4)(i) and (i)(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 substep is labeled “RC Exempt,” then the RC requirement is removed from that step or substep. 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.

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

(1) For more information about this AD, contact Scott Craig, Aerospace Engineer, Cabin Safety and Environmental Systems Section, FAA, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3566; email: Michael.S.Craig@faa.gov.

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

**(k) Material Incorporated by Reference**

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

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

(i) Boeing Special Attention Service Bulletin 747-25-3646, Revision 1, dated August 2, 2017.

(ii) Boeing Special Attention Service Bulletin 747-25-3692, dated June 22, 2016.

(iii) Boeing Special Attention Service Bulletin 747-53-2877, dated August 5, 2014.

(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 90740-5600; telephone 562-797-1717; internet <https://www.myboeingfleet.com>.

(4) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(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 Des Moines, Washington, on July 23, 2018.

James Cashdollar,  
Acting Director, System Oversight Division,  
Aircraft Certification Service.



**2018-16-12 Airbus:** Amendment 39-19352; Docket No. FAA-2018-0077; Product Identifier 2017-NM-126-AD.

**(a) Effective Date**

This AD is effective September 12, 2018.

**(b) Affected ADs**

This AD affects AD 2016-25-24, Amendment 39-18750 (81 FR 90958, December 16, 2016) (“AD 2016-25-24”).

**(c) Applicability**

This AD applies to Airbus Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; Model A320-211, -212, -214, -216, -231, -232, -233, -251N, and -271N airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes, certificated in any category, as identified in Airbus Service Bulletin A320-92-1116, Revision 00, dated January 31, 2017; or Airbus Service Bulletin A320-92-1118, Revision 00, dated January 31, 2017.

**(d) Subject**

Air Transport Association (ATA) of America Code 92, Electrical system installation.

**(e) Reason**

This AD was prompted by reports of battery retaining rod failures due to quality defects of the material used during parts manufacturing. We are issuing this AD to detect and correct broken battery retaining rods, which, in the event of a hard landing or severe turbulence, could 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) Definition of a Serviceable Rod**

For the purpose of this AD, a serviceable battery retaining rod is defined in paragraphs (g)(1) or (g)(2) of this AD.

- (1) A battery retaining rod provided as a spare part by Airbus.
- (2) A battery retaining rod previously fitted on a battery support assembly installed on an airplane manufacturer serial number that is not specified in Airbus Service Bulletin A320-92-1116,

Revision 00, dated January 31, 2017 (for Airbus Model A319 and A320 series airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes); or Airbus Service Bulletin A320-92-1118, Revision 00, dated January 31, 2017 (for Airbus Model A320-251N and -271N airplanes), provided the battery retaining rod used for replacement can be positively identified as a serviceable battery retaining rod.

**(h) Identification of Affected Parts**

Within 24 months after the effective date of this AD: Accomplish a detailed inspection of the battery support assemblies to identify the battery retaining rod manufacturer, in accordance with the Accomplishment Instructions of the Airbus Service Bulletin A320-92-1116, Revision 00, dated January 31, 2017 (for Airbus Model A319 and A320 series airplanes, and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes); or Airbus Service Bulletin A320-92-1118, Revision 00, dated January 31, 2017 (for Airbus Model A320-251N and -271N airplanes).

**(i) Replacement of Affected Parts if Marking Is Found on Battery Support Assembly**

If, during the inspection specified in paragraph (h) of this AD, the quality stamp on any battery support assemblies are found marked with an “SA” manufacturer identification, before further flight, replace the battery retaining rods with serviceable battery retaining rods, in accordance with the Accomplishment Instructions of the Airbus Service Bulletin A320-92-1116, Revision 00, dated January 31, 2017 (for Airbus Model A319 and A320 series airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes); or Airbus Service Bulletin A320-92-1118, Revision 00, dated January 31, 2017 (for Airbus Model A320-251N and -271N airplanes); except as provided by paragraph (j) of this AD.

**(j) Exception to the Service Information**

Although Airbus Service Bulletin A320-92-1116, Revision 00, dated January 31, 2017; and Airbus Service Bulletin A320-92-1118, Revision 00, dated January 31, 2017; specify to install inspection service bulletin (ISB) labels, this AD does not include that requirement.

**(k) Parts Installation Prohibition**

As of the effective date of this AD, no person may install, on any airplane, a non-serviceable battery retaining rod.

**(l) Terminating Action**

Replacement of all battery retaining rods with a serviceable battery retaining rod as required by paragraph (i) of this AD constitutes terminating action for all requirements of AD 2016-25-24 for that airplane.

**(m) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Section, Transport Standards Branch, 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 Section, send it to the attention of the person identified in paragraph (n)(2) of this AD. 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 Section, Transport Standards Branch, 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.

(3) **Required for Compliance (RC):** If any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified 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 procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

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

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2017-0161R1, dated September 19, 2017; corrected September 20, 2017; 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-2018-0077.

(2) For more information about this AD, contact Sanjay Ralhan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3223.

#### **(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 Service Bulletin A320-92-1116, Revision 00, dated January 31, 2017.

(ii) Airbus Service Bulletin A320-92-1118, Revision 00, dated January 31, 2017.

(3) For service information identified in this AD, contact Airbus, Airworthiness Office–EIAS, 2 Rond Point Emile Dewoitine, 31700 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 Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(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 Des Moines, Washington, on July 27, 2018.

James Cashdollar,  
Acting Director, System Oversight Division,  
Aircraft Certification Service.



**2018-17-02 Bombardier, Inc.:** Amendment 39-19356; Docket No. FAA-2018-0028; Product Identifier 2017-NM-143-AD.

**(a) Effective Date**

This AD is effective September 19, 2018.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to the Bombardier, Inc., airplanes identified in paragraphs (c)(1) through (c)(4) of this AD, certificated in any category.

(1) Model CL-600-1A11 (600) airplanes, serial numbers 1002 and 1004 through 1085 inclusive.

(2) Model CL-600-2A12 (601) airplanes, serial numbers 3001 through 3066 inclusive.

(3) Model CL-600-2B16 (601-3A and 601-3R Variants) airplanes, serial numbers 5001 through 5194 inclusive.

(4) Model CL-600-2B16 (604 Variant) airplanes, serial numbers 5301 through 5665 inclusive, 5701 through 5990 inclusive, and 6050 and subsequent.

**(d) Subject**

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

**(e) Reason**

This AD was prompted by a determination that the safe life limits of the horizontal stabilizer trim actuator (HSTA) attachment pins and trunnions were not listed in certain airworthiness limitations (AWLs) and that the HSTA attachment pins and trunnions were not serialized. We are issuing this AD to prevent failure of the HSTA attachment pins and trunnions, which could lead to a disconnect of the horizontal stabilizer and subsequent loss of the airplane.

**(f) Compliance**

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

**(g) Maintenance or Inspection Program Revision for Model CL-600-1A11 (600), Model CL-600-2A12 (601), and Model CL-600-2B16 (601-3A and 601-3R Variants) Airplanes**

For airplanes identified in paragraphs (c)(1), (c)(2), and (c)(3) of this AD: Within 60 days after the effective date of this AD, revise the maintenance or inspection program, as applicable, to incorporate the life limit AWL tasks identified in table 1 to paragraph (g) of this AD, as specified in

the applicable service information identified in paragraph (g)(1), (g)(2), or (g)(3) of this AD. The initial compliance time is within 500 flight cycles of the effective date of this AD, or at the applicable time (in terms of landings) specified in the applicable AWL task identified in table 1 to paragraph (g) of this AD, whichever occurs later.

(1) For Model CL-600-1A11 (600) airplanes, Section 5-10-10, “Time Limits (Structural),” of Section 5-10-00, “Airworthiness Limitations,” of Bombardier Challenger 600 Time Limits/Maintenance Checks, Publication No. PSP 605, Revision 39, dated January 8, 2018.

(2) For Model CL-600-2A12 (601) airplanes, the applicable task specified in paragraph (g)(2)(i), (g)(2)(ii), or (g)(2)(iii) of this AD, as identified in Section 5-10-00, “Airworthiness Limitations,” of Bombardier Challenger 601 Time Limits/Maintenance Checks, Publication No. PSP 601-5, Revision 46, dated January 8, 2018.

(i) Section 5-10-10, “Time Limits (Structural)–Pre SB 601-0280.”

(ii) Section 5-10-11, “Time Limits (Structural)–Post SB 601-0280.”

(iii) Section 5-10-12, “Time Limits (Structural)–Post SB 601-0360.”

(3) For Model CL-600-2B16 (601-3A and 601-3R Variants) airplanes, the applicable task specified in paragraph (g)(3)(i), (g)(3)(ii), or (g)(3)(iii) of this AD, as identified in Section 5-10-00, “Airworthiness Limitations,” of Bombardier Challenger 601 Time Limits/Maintenance Checks, Publication No. PSP 601A-5, Revision 42, dated January 8, 2018.

(i) Section 5-10-10, “Time Limits (Structural).”

(ii) Section 5-10-11, “Time Limits (Structural).”

(iii) Section 5-10-12, “Time Limits (Structural).”

**Table 1 to paragraph (g) of this AD – Life limit AWL tasks**

<b>Part Name</b>	<b>Part Number</b>	<b>Landings</b>
HSTA installation pin, lower attachment	600-92383-1	50,000
HSTA installation pin, upper attachment	600-92384-1	50,000

#### **(h) Maintenance or Inspection Program Revision for Model CL-600-2B16 (604 Variant) Airplanes**

For airplanes identified in paragraph (c)(4) of this AD: Within 60 days after the effective date of this AD, revise the maintenance or inspection program, as applicable, to incorporate new life limit AWL Task 27-42-01-108, “Discard of the Horizontal-Stabilizer Trim-Actuator (HSTA) Trunnion Support; Part No. 601R92386-1/-3,” and Task 27-42-01-112, “Discard of the Horizontal-Stabilizer Trim-Actuator (HSTA) Upper and Lower Attachment Pins; Upper Pin Part No. 600-92384-5/-7 or 601R92310-1/-3 and Lower Pin Part No. 600-92383-5/-7 or 601R92309-1/-3,” as specified in the applicable time limits maintenance checks (TLMC) manuals identified in paragraphs (h)(1), (h)(2), and (h)(3) of this AD. The initial compliance time is within 500 flight cycles after the effective date of this AD, or at the applicable time specified in the applicable AWL task, whichever occurs later.

(1) For airplanes having serial numbers 5301 through 5665 inclusive: Section 5-10-10, “Life Limits (Structures),” of Bombardier Challenger 604 CL-604 Time Limits/Maintenance Checks, Part 2 Airworthiness Limitations, Revision 30, dated December 4, 2017.

(2) For airplanes having serial numbers 5701 through 5990 inclusive: Section 5-10-10, “Life Limits (Structures),” of Bombardier Challenger 605 CL-605 Time Limits/Maintenance Checks, Part 2 Airworthiness Limitations, Revision 18, dated December 4, 2017.

(3) For airplanes having serial numbers 6050 and subsequent: Section 5-10-10, “Life Limits (Structures),” of Bombardier Challenger 650 CL-650 Time Limits/Maintenance Checks, Part 2 Airworthiness Limitations, Revision 5, dated December 4, 2017.

**(i) Serialization of HSTA Attachment Pins and Trunnions**

For airplanes identified in table 2 to paragraph (i) of this AD: Within 48 months after the effective date of this AD, or prior to performing a maintenance task required by paragraph (g) or (h) of this AD, as applicable, whichever occurs first, do a general visual inspection for damage (including linear scratches, pits, spalling, dents, or surface texture variations), and add serial numbers to the HSTA trunnions, lower attachment pin, and upper attachment pin, as applicable, in accordance with the Accomplishment Instructions of the applicable service information specified in table 2 to paragraph (i) of this AD. If any damage to the HSTA trunnions or attachment pins is found, repair the damage in accordance with the applicable service information specified in paragraph (i)(1), (i)(2), or (i)(3) of this AD; or using a method approved by the Manager, New York ACO Branch, 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. If the damaged HSTA trunnion or attachment pin cannot be repaired in accordance with the applicable service information specified in paragraph (i)(1), (i)(2), or (i)(3) of this AD: Before further flight, replace the damaged HSTA trunnion or attachment pin with a serviceable serialized HSTA trunnion or attachment pin, in accordance with the applicable service information specified in table 2 to paragraph (i) of this AD.

(1) Bombardier Repair Engineering Order (REO) 600-27-42-002, “General Repair–HSTA Upper and Lower Pins,” dated December 15, 2016.

(2) Bombardier Repair Engineering Order (REO) 604-27-42-011, “General Repair–HSTA Trunnion P/N 601R92386-1/-3,” dated December 15, 2016.

(3) Bombardier Repair Engineering Order (REO) 604-27-42-012, “General Repair–HSTA Upper and Lower Pins,” dated December 15, 2016.

**Table 2 to paragraph (i) of this AD – Service bulletins for part serialization**

<b>Airplane model</b>	<b>Bombardier Service Bulletin</b>	<b>Parts to serialize</b>
CL-600-1A11 (600), serial numbers 1002 and 1004 through 1085 inclusive	600-0760, Revision 01, dated April 21, 2017	HSTA upper attachment pin HSTA lower attachment pin
CL-600-2A12 (601), serial numbers 3001 through 3066 inclusive	601-0626, Revision 01, dated April 21, 2017	HSTA upper attachment pin HSTA lower attachment pin
CL-600 2B16 (601-3A and 601-3R Variants), serial numbers 5001 through 5194 inclusive	601-0626, Revision 01, dated April 21, 2017	HSTA upper attachment pin HSTA lower attachment pin
CL-600-2B16 (604 Variant), serial numbers 5301 through 5665 inclusive	604-27-034, Revision 01, dated April 21, 2017	HSTA trunnions HSTA upper attachment pin HSTA lower attachment pin
CL-600-2B16 (604 Variant), serial numbers 5701 through 5926 inclusive	605-27-005, Revision 01, dated April 21, 2017	HSTA trunnions HSTA upper attachment pin HSTA lower attachment pin

**(j) No Alternative Actions or Intervals**

After the maintenance or inspection program has been revised as required by paragraph (g) or (h) of this AD, no alternative actions (e.g., inspections) or intervals may be used unless the actions or intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (m)(1) of this AD.

**(k) Credit for Previous Actions**

(1) This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using the service information specified in paragraph (k)(1)(i), (k)(1)(ii), or (k)(1)(iii) of this AD, as applicable.

(i) Section 5-10-10, “Time Limits (Structural),” of Section 5-10-00, “Airworthiness Limitations,” of Bombardier Challenger 600 Time Limits/Maintenance Checks, Publication No. PSP 605, Revision 38, dated March 28, 2017.

(ii) Section 5-10-10, “Time Limits (Structural)–Pre SB 601-0280,” of Section 5-10-00, “Airworthiness Limitations,” of Bombardier Challenger 601 Time Limits/Maintenance Checks, Publication No. PSP 601-5, Revision 45, dated March 28, 2017.

(iii) Section 5-10-11, “Time Limits (Structural)–Post SB 601-0280,” of Section 5-10-00, “Airworthiness Limitations,” of Bombardier Challenger 601 Time Limits/Maintenance Checks, Publication No. PSP 601-5, Revision 45, dated March 28, 2017.

(iv) Section 5-10-12, “Time Limits (Structural)–Post SB 601-0360,” of Section 5-10-00, “Airworthiness Limitations,” of Bombardier Challenger 601 Time Limits/Maintenance Checks, Publication No. PSP 601-5, Revision 45, dated March 28, 2017.

(v) Section 5-10-10, "Time Limits (Structural)," of Section 5-10-00, "Airworthiness Limitations," of Bombardier Challenger 601 Time Limits/Maintenance Checks, Publication No. PSP 601A-5, Revision 41, dated March 28, 2017.

(vi) Section 5-10-11, "Time Limits (Structural)," of Section 5-10-00, "Airworthiness Limitations," of Bombardier Challenger 601 Time Limits/Maintenance Checks, Publication No. PSP 601A-5, Revision 41, dated March 28, 2017.

(vii) Section 5-10-12, "Time Limits (Structural)," of Section 5-10-00, "Airworthiness Limitations," of Bombardier Challenger 601 Time Limits/Maintenance Checks, Publication No. PSP 601A-5, Revision 41, dated March 28, 2017.

(2) This paragraph provides credit for actions required by paragraph (h) of this AD, if those actions were performed before the effective date of this AD using the service information specified in paragraph (k)(2)(i), (k)(2)(ii), or (k)(2)(iii) of this AD, as applicable.

(i) Section 5-10-10, "Life Limits (Structures)," of Bombardier Challenger 604 CL-604 Time Limits/Maintenance Checks, Part 2 Airworthiness Limitations, Revision 29, dated June 16, 2017.

(ii) Section 5-10-10, "Life Limits (Structures)," of Bombardier Challenger 605 CL-605 Time Limits/Maintenance Checks, Part 2 Airworthiness Limitations, Revision 17, dated June 16, 2017.

(iii) Section 5-10-10, "Life Limits (Structures)," of Bombardier Challenger 650 CL-650 Time Limits/Maintenance Checks, Part 2 Airworthiness Limitations, Revision 4, dated June 16, 2017.

(3) This paragraph provides credit for actions required by paragraph (i) of this AD, if those actions were performed before the effective date of this AD using the service information specified in paragraph (k)(3)(i), (k)(3)(ii), (k)(3)(iii), or (k)(3)(iv) of this AD, as applicable.

(i) Bombardier Service Bulletin 600-0760, dated February 25, 2013.

(ii) Bombardier Service Bulletin 601-0626, dated February 25, 2013.

(iii) Bombardier Service Bulletin 604-27-034, dated February 25, 2013.

(iv) Bombardier Service Bulletin 605-27-005, dated February 25, 2013.

#### **(l) Parts Installation Limitations**

(1) As of the effective date of this AD, no person may install, on any airplane, an HSTA attachment pin, unless the pin has a serial number.

(2) As of the effective date of this AD, no person may install, on any Bombardier, Inc., Model CL-600-2B16 (604 Variant) airplane with serial number 5301 and subsequent, an HSTA trunnion, unless the HSTA trunnion has a serial number.

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

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York ACO Branch, 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 certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 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 Branch, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO. If approved by the DAO, the approval must include the DAO-authorized signature.

**(n) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2017-24, dated July 12, 2017, 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-2018-0028.

(2) For more information about this AD, contact Aziz Ahmed, Aerospace Engineer, Airframe and Mechanical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7239; fax 516-794-5531; email [9-avs-nyaco-cos@faa.gov](mailto:9-avs-nyaco-cos@faa.gov).

(3) 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) Bombardier Repair Engineering Order (REO) 600-27-42-002, "General Repair–HSTA Upper and Lower Pins," dated December 15, 2016.

(ii) Bombardier Repair Engineering Order (REO) 604-27-42-011, "General Repair–HSTA Trunnion P/N 601R92386-1/-3," dated December 15, 2016.

(iii) Bombardier Repair Engineering Order (REO) 604-27-42-012, "General Repair–HSTA Upper and Lower Pins," dated December 15, 2016.

(iv) Bombardier Service Bulletin 600-0760, Revision 01, dated April 21, 2017.

(v) Bombardier Service Bulletin 601-0626, Revision 01, dated April 21, 2017.

(vi) Bombardier Service Bulletin 604-27-034, Revision 01, dated April 21, 2017.

(vii) Bombardier Service Bulletin 605-27-005, Revision 01, dated April 21, 2017.

(viii) Section 5-10-10, "Time Limits (Structural)," of Section 5-10-00, "Airworthiness Limitations," of Bombardier Challenger 600 Time Limits/Maintenance Checks, Publication No. PSP 605, Revision 39, dated January 8, 2018.

(ix) Section 5-10-00, "Airworthiness Limitations," of Bombardier Challenger 601 Time Limits/Maintenance Checks, Publication No. PSP 601-5, Revision 46, dated January 8, 2018.

(A) Section 5-10-10, "Time Limits (Structural)–Pre SB 601-0280."

(B) Section 5-10-11, "Time Limits (Structural)–Post SB 601-0280."

(C) Section 5-10-12, "Time Limits (Structural)–Post SB 601-0360."

(x) Section 5-10-00, "Airworthiness Limitations," of Bombardier Challenger 601 Time Limits/Maintenance Checks, Publication No. PSP 601A-5, Revision 42, dated January 8, 2018.

(A) Section 5-10-10, "Time Limits (Structural)."

(B) Section 5-10-11, "Time Limits (Structural)."

(C) Section 5-10-12, "Time Limits (Structural)."

(xi) Section 5-10-10, "Life Limits (Structures)," of Bombardier Challenger 604 CL-604 Time Limits/Maintenance Checks, Part 2 Airworthiness Limitations, Revision 30, dated December 4, 2017.

(xii) Section 5-10-10, "Life Limits (Structures)," of Bombardier Challenger 605 CL-605 Time Limits/Maintenance Checks, Part 2 Airworthiness Limitations, Revision 18, dated December 4, 2017.

(xiii) Section 5-10-10, "Life Limits (Structures)," of Bombardier Challenger 650 CL-650 Time Limits/Maintenance Checks, Part 2 Airworthiness Limitations, Revision 5, dated December 4, 2017.

(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 Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(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 Des Moines, Washington, on August 5, 2018.

Michael Kaszycki,  
Acting Director, System Oversight Division,  
Aircraft Certification Service.



**2018-17-03 The Boeing Company:** Amendment 39-19357; Docket No. FAA-2017-1022; Product Identifier 2017-NM-098-AD.

**(a) Effective Date**

This AD is effective September 19, 2018.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to The Boeing Company Model 787-8 and 787-9 airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin B787-81205-SB300019-00, Issue 002, dated April 20, 2018.

**(d) Subject**

Air Transport Association (ATA) of America Code 30, Ice/Rain protection system wiring.

**(e) Unsafe Condition**

This AD was prompted by reports of failures of the Cabin Air Compressor (CAC) inlet ice protection system (CIPS) inlet lip heater assemblies due to chafing of the CIPS inlet lip heater wire harness against adjacent structures. We are issuing this AD to address any damage to the CIPS inlet lip heater wire bundle, which could cause an electrical short and potential loss of functions essential for safe flight of the airplane.

**(f) Compliance**

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

**(g) Required Actions**

Within 36 months after the effective date of this AD, do all applicable actions identified as “RC” (required for compliance) in, and in accordance with, the Accomplishment Instructions of Boeing Alert Service Bulletin B787-81205-SB300019-00, Issue 002, dated April 20, 2018.

**(h) Credit for Previous Actions**

(1) This paragraph provides credit for the actions specified in paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin B787-81205-SB300019-00, Issue 001, dated March 22, 2017.

(2) This paragraph provides credit for the actions specified in paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin B787-81205-SB300019-00, Issue 001, dated March 22, 2017, in conjunction with Boeing Information Notice B787-A-30-00-0019-02A-931E-D, Issue 001, dated December 15, 2017.

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

(1) The Manager, Seattle ACO Branch, 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 certification office, send it to the attention of the person identified in paragraph (j) 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 Branch, 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) For service information that contains steps that are labeled as RC, the provisions of paragraphs (i)(4)(i) and (i)(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 substep is labeled “RC Exempt,” then the RC requirement is removed from that step or substep. 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.

**(j) Related Information**

For more information about this AD, contact Joe Saleme, Aerospace Engineer, Systems and Equipment Section, FAA, Seattle ACO Branch, 2200 South 216th Street, Des Moines, WA 98198; phone and fax: 206-231-3536; email: joe.salameh@faa.gov.

**(k) Material Incorporated by Reference**

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

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

(i) Boeing Alert Service Bulletin B787-81205-SB300019-00, Issue 002, dated April 20, 2018.

(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 Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(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 Des Moines, Washington, on August 5, 2018.

Michael Kaszycki,  
Acting Director, System Oversight Division,  
Aircraft Certification Service.



**2018-17-04 Roll-Royce Corporation (Type Certificate previously held by Allison Engine Company):** Amendment 39-19358; Docket No. FAA-2018-0259; Product Identifier 2018-NE-09-AD.

**(a) Effective Date**

This AD is effective September 21, 2018.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to:

(1) Rolls-Royce Corporation (RRC) AE 2100D2A turboprop engines with 1st-stage gas generator turbine wheels, part number (P/N) 23089692, with serial numbers (S/Ns) MW65898 or MW68310, installed.

(2) RRC AE 2100D3 turboprop engines with 1st-stage gas generator turbine wheels, P/N 23088906, with S/Ns MW65895, MW65896, MW65900, MW65901, MW65903, MW68305, MW68306, MW68307, MW68312, MW68314, MW68316, MW68318, or MW68319, installed.

(3) RRC AE 3007A2 turbofan engines with 1st-stage high-pressure turbine (HPT) wheels, P/N 23088906, with S/Ns MW65894, MW68303, or MW68315, installed.

**(d) Subject**

Joint Aircraft System Component (JASC) Code 7250, Turbine section.

**(e) Unsafe Condition**

This AD was prompted by the possibility of steel inclusions in the turbine wheel forging. We are proposing this AD to prevent a low-cycle fatigue failure of a 1st-stage gas generator turbine wheel or 1st-stage HPT wheel. The unsafe condition, if not addressed, could result in uncontained turbine wheel release, damage to the engine, and damage to the airplane.

**(f) Compliance**

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

**(g) Required Actions**

(1) Remove the affected 1st-stage gas generator turbine wheel and replace with a part eligible for installation at the next engine shop visit or before exceeding the life limit of 4,800 engine cycles, whichever occurs first, in accordance with the Accomplishment Instructions, Paragraph 2, of RRC

Alert Service Bulletin (ASB) AE 2100D2-A-72-090, Revision 1, dated July 11, 2014, and RRC ASB AE 2100D3-A-72-286, Revision 1, dated July 11, 2014 (co-published as one document).

(2) Remove the affected 1st-stage HPT wheel and replace with a part eligible for installation at the next engine shop visit or before exceeding the life limit of 5,600 engine cycles, whichever occurs first, in accordance with the Accomplishment Instructions, Paragraph 2, of RRC ASB AE 3007A-A-72-419, Revision 2, dated December 4, 2017.

#### **(h) 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 is not an engine shop visit.

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

(1) The Manager, Chicago ACO Branch, 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 certification office, send it to the attention of the person identified in paragraph (j) 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.

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

For more information about this AD, contact Kyri Zaroyiannis, Aerospace Engineer, Chicago ACO Branch, FAA, 2300 E. Devon Ave., Des Plaines, IL, 60018; phone: 847-294-7836; fax: 847-294-7834; email: kyri.zaroyiannis@faa.gov.

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

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

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

(i) Rolls-Royce Corporation (RRC) Alert Service Bulletin (ASB) AE 2100D2-A-72-090, Revision 1, dated July 11, 2014, and RRC ASB AE 2100D3-A-72-286, Revision 1, dated July 11, 2014 (co-published as one document).

(ii) RRC ASB AE 3007A-A-72-419, Revision 2, dated December 4, 2017.

(3) For RRC service information identified in this AD, contact Rolls-Royce Corporation, 450 South Meridian Street, Indianapolis, IN, 46225; phone: 317-230-3774.

(4) You may view this service information at FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA, 01803. For information on the availability of this material at the FAA, call 781-238-7759.

(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 August 13, 2018.  
Karen M. Grant,  
Acting Manager, Engine and Propeller Standards Branch,  
Aircraft Certification Service.



**2018-17-05 Airbus SAS:** Amendment 39-19359; Docket No. FAA-2018-0709; Product Identifier 2018-NM-100-AD.

**(a) Effective Date**

This AD becomes effective August 30, 2018.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Airbus SAS Model A350-941 and -1041 airplanes, certificated in any category, all manufacturer serial numbers.

**(d) Subject**

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

**(e) Reason**

This AD was prompted by reports that electro-hydrostatic actuators (EHAs), installed on the inboard ailerons, elevators, and rudder, had degraded insulation resistance in the direct drive solenoid valve (DDSOV), due to incorrect sealing application. We are issuing this AD to address this condition, which could lead to the DDSOV being unable to command or maintain the EHA in active mode, possibly resulting in reduced control of the airplane.

**(f) Compliance**

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

**(g) Definitions**

For the purposes of this AD, the definitions specified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD apply.

(1) An affected EHA is an EHA installed on inboard ailerons, elevators, and rudder, as listed by part number and serial number in the applicable service information specified in paragraphs (g)(1)(i), (g)(1)(ii), and (g)(1)(iii) of this AD, except those that are paint marked, as specified in the applicable service information specified in paragraphs (g)(1)(i), (g)(1)(ii), and (g)(1)(iii) of this AD.

(i) Moog Aircraft Group Service Bulletin CA67001-27-05, dated February 21, 2018 (aileron).

(ii) Moog Aircraft Group Service Bulletin CA67006-27-04, dated February 21, 2018 (elevator).

(iii) Moog Aircraft Group Service Bulletin CA67008-27-04, dated February 21, 2018 (rudder).

(2) A serviceable EHA is an EHA having a part number and serial number not listed in the applicable service information specified in paragraphs (g)(1)(i), (g)(1)(ii), and (g)(1)(iii) of this AD; or an affected EHA having a paint mark as specified in the applicable service information specified in paragraphs (g)(1)(i), (g)(1)(ii), and (g)(1)(iii) of this AD.

(3) Group 1 airplanes are those that have an affected EHA installed. Group 2 airplanes are those that do not have an affected EHA installed.

#### **(h) Initial Insulation Resistance Check**

(1) For Group 1 airplanes, which have not been inspected in accordance with the instructions of Airbus Alert Operators Transmission (AOT) A27P009-16: Within 3 months after the airplane has reached 700 flight hours since airplane first flight, or within 30 days after the effective date of this AD, whichever occurs later, accomplish an insulation resistance check (detailed inspection) of the DDSOV of each affected EHA, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A350-27-P020, dated February 22, 2018.

(2) For Group 1 airplanes, which have been inspected in accordance with the instructions of Airbus AOT A27P009-16: Within 3 months after the airplane has reached 36 months since airplane first flight, or within 3 months after the effective date of this AD, whichever occurs later, accomplish an insulation resistance check of the DDSOV of each affected EHA, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A350-27-P020, dated February 22, 2018.

#### **(i) Additional Check and Corrective Action**

(1) If during the check required by paragraph (h)(1) of this AD, the measured insulation resistance is 15 Megohms (MOhms) or less, before next flight, replace the affected EHA with a serviceable EHA, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A350-27-P020, dated February 22, 2018.

(2) If during the check required by paragraph (h)(1) of this AD, the measured insulation resistance is more than 15 MOhms, within 3 months after the airplane has reached 36 months since airplane first flight, or within 3 months after the effective date of this AD, whichever occurs later, accomplish an insulation resistance check of the DDSOV of each affected EHA, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A350-27-P020, dated February 22, 2018.

(3) Depending on measured resistance result of the check required by paragraph (h)(2) or (i)(2) of this AD, within the applicable compliance time defined in figure 1 to paragraph (i)(3) of this AD, accomplish the applicable corrective action(s) defined in figure 1 to paragraph (i)(3) of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A350-27-P020, dated February 22, 2018; or the applicable service information specified in paragraphs (g)(1)(i), (g)(1)(ii), and (g)(1)(iii) of this AD.

**Figure 1 to paragraph (i)(3) of this AD – Insulation Resistance Results and Corrective Actions**

<b>Measured Resistance (in MOhms)</b>	<b>Compliance Time (since last check of the insulation resistance)</b>	<b>Actions</b>
15 or less	Before next flight	Replace the affected EHA with a serviceable EHA
More than 15, but not more than 50	Within 3 months	
More than 50, but not more than 100	Within 6 months	
More than 100 MOhms	Before next flight	Re-identify the affected EHA (apply paint marking) as serviceable EHA

**(j) Reporting**

For each check required by paragraph (h)(2) or (i)(2) of this AD: Within 30 days after each check required by paragraph (h)(2) or (i)(2) of this AD or within 30 days after the effective date of this AD, whichever occurs later, report the results, including no findings, using the online reporting application in AirbusWorld, as specified in Appendix A. “Inspection Report” of Airbus Service Bulletin A350-27-P020, dated February 22, 2018.

**(k) Parts Installation Prohibition**

For Group 1 and Group 2 airplanes: From the effective date of this AD, no person may install an affected EHA on any airplane.

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

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 1 hour 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.

**(m) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Section, Transport Standards Branch, 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 Section, send it to the attention of the person identified in

paragraph (n)(2) of this AD. 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 Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) Required for Compliance (RC): If any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified 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 procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

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

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2018-0141, dated July 3, 2018, 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-2018-0709.

(2) For more information about this AD, contact Kathleen Arrigotti, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3218.

#### **(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 SAS Service Bulletin A350-27-P020, dated February 22, 2018.

(ii) Moog Aircraft Group Service Bulletin CA67001-27-05, dated February 21, 2018.

(iii) Moog Aircraft Group Service Bulletin CA67006-27-04, dated February 21, 2018.

(iv) Moog Aircraft Group Service Bulletin CA67008-27-04, dated February 21, 2018.

(3) For Airbus SAS service information identified in this AD, contact Airbus SAS, Airworthiness Office–EAL, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; phone: +33 5 61 93 36 96; fax: +33 5 61 93 45 80; email: [continued-airworthiness.a350@airbus.com](mailto:continued-airworthiness.a350@airbus.com); internet: <http://www.airbus.com>.

(4) For Moog Aircraft Group service information identified in this AD, contact Moog Aircraft Group, Plant 4, 160 Jamison Road, East Aurora, NY 14052-0018; phone: 716-652-2000; email: [CASC@moog.com](mailto:CASC@moog.com); internet: <http://www.moog.com>.

(5) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(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 Des Moines, Washington, on August 5, 2018.  
Michael Kaszycki,  
Acting Director, System Oversight Division,  
Aircraft Certification Service.



**2018-17-06 Fokker Services B.V.:** Amendment 39-19360; Docket No. FAA-2018-0303; Product Identifier 2018-NM-006-AD.

**(a) Effective Date**

This AD is effective September 21, 2018.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Fokker Services B.V. Model F28 Mark 0070 and 0100 airplanes, certificated in any category, all serial numbers, if equipped with Goodrich main landing gear (MLG), part number (P/N) 41050-x (all dashes) or P/N 41060-x (all dashes).

**(d) Subject**

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

**(e) Reason**

This AD was prompted by a report that the retraction actuator eye-end of a Goodrich MLG failed. We are issuing this AD to address failure of the retraction actuator eye-end of a Goodrich MLG, which could prevent retraction of the MLG and/or its complete extension, possibly resulting in damage to the airplane during landing, and consequent injury to occupants.

**(f) Compliance**

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

**(g) Definition**

For the purposes of this AD, a “serviceable part” is a serviceable retraction actuator with an eye-end that does not have any indication of interference or damage, as specified in the Accomplishment Instructions of Fokker Service Bulletin SBF100-32-168, dated May 22, 2017.

**(h) Inspection and Corrective Action**

Within 12 months after the effective date of this AD, perform a general visual inspection of the left-hand (LH) and right-hand (RH) MLG retraction actuators for deficiencies (i.e., check for the presence of interference damage, including evidence of removed damage, and for the orientation of the greasing nipple), in accordance with the Accomplishment Instructions of Fokker Service Bulletin

SBF100-32-168, dated May 22, 2017. If any deficiency is found, before further flight, replace the affected MLG retraction actuator with a serviceable part, in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-32-168, dated May 22, 2017.

**(i) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Section, Transport Standards Branch, 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 Section, send it to the attention of the person identified in paragraph (j)(2) of this AD. 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 Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Fokker Services B.V.'s EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

**(j) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2018-0001, dated January 4, 2018, 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-2018-0303.

(2) For more information about this AD, contact Tom Rodriguez, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3226.

**(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) Fokker Service Bulletin SBF100-32-168, dated May 22, 2017.

(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 Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(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 Des Moines, Washington, on August 7, 2018.  
Michael Kaszycki,  
Acting Director, System Oversight Division,  
Aircraft Certification Service.



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## **AIRWORTHINESS DIRECTIVE**

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**2018-17-07 ATR–GIE Avions de Transport Régional:** Amendment 39-19361; Docket No. FAA-2018-0712; Product Identifier 2018-NM-089-AD.

### **(a) Effective Date**

This AD is effective September 4, 2018.

### **(b) Affected ADs**

This AD replaces AD 2017-24-01, Amendment 39-19105 (82 FR 55755, November 24, 2017) (“AD 2017-24-01”).

### **(c) Applicability**

This AD applies to the ATR–GIE Avions de Transport Régional airplanes identified in paragraphs (c)(1) and (c)(2) of this AD, certificated in any category.

(1) Model ATR42-500 airplanes, manufacturer serial numbers (MSNs) 1001 through 1014 inclusive, 1016 through 1019 inclusive, and 1201 through 1212 inclusive.

(2) Model ATR72-212A airplanes, MSNs 1048 through 1070 inclusive, 1072 through 1140 inclusive, 1142 through 1200 inclusive, 1220 through 1340 inclusive, 1342 through 1353 inclusive, 1355 through 1366 inclusive, 1368 through 1376 inclusive, 1378 through 1380 inclusive, 1382, 1385, and 1388.

### **(d) Subject**

Air Transport Association (ATA) of America Code 92, Electric.

### **(e) Reason**

This AD was prompted by reports of electrical harness bundle chafing with a window blinding panel in the fuselage due to missing routing attachments and by a determination that additional airplanes that were not identified in AD 2017-24-01 are affected by the unsafe condition. We are issuing this AD to detect and correct missing routing attachments of fuselage electrical harness bundles, which could result in wire failure (cut or shorted), and, in case of several failures in combination, the loss of systems, possibly resulting in reduced control of the airplane.

### **(f) Compliance**

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

### **(g) Definitions**

(1) For the purposes of this AD, Group 1 airplanes are identified as the following: MSNs 1014, 1016 through 1019 inclusive, 1165 through 1212 inclusive, 1220 through 1340 inclusive, 1342

through 1353 inclusive, 1355 through 1366 inclusive, 1368 through 1376 inclusive, 1378 through 1380 inclusive, 1382, 1385 and 1388.

(2) For the purposes of this AD, Group 2 airplanes are identified as the following: MSNs 1001 through 1013 inclusive, 1048 through 1070 inclusive, 1072 to 1140 inclusive 1142 through 1164 inclusive.

#### **(h) Retained Inspection With New Service Information and Revised Compliance Language**

This paragraph restates the requirements of paragraph (g) of AD 2017-24-01, with new service information and revised compliance language. For Group 1 airplanes: Within 6 months or 500 flight hours after December 11, 2017 (the effective date of AD 2017-24-01), whichever occurs first, do a detailed inspection for missing brackets and damage (including but not limited to chafing and electrical shorting) to wire bundles of the Route 1M and Route 2M electrical harness, in accordance with the flowchart in paragraph 1.C., "Description," and the Accomplishment Instructions of ATR Service Bulletin ATR42-92-0033, Revision 02, dated April 12, 2018 (for Model ATR42-500 airplanes); or ATR Service Bulletin ATR72-92-1044, Revision 02, dated April 12, 2018 (for Model ATR72-212A airplanes); as applicable. Although ATR Service Bulletin ATR42-92-0033, Revision 02, dated April 12, 2018; and ATR Service Bulletin ATR72-92-1044, Revision 02, dated April 12, 2018; specify reporting, this AD does not include that requirement.

#### **(i) New Requirement of This AD: Inspection**

For Group 2 airplanes: Within 6 months or 500 flight hours after the effective date of this AD, whichever occurs first, do a detailed inspection for missing brackets and damage (including but not limited to chafing and electrical shorting) to wire bundles of the Route 1M and Route 2M electrical harness, in accordance with the flowchart in paragraph 1.C., "Description," and the Accomplishment Instructions of ATR Service Bulletin ATR42-92-0033, Revision 02, dated April 12, 2018 (for Model ATR42-500 airplanes); or ATR Service Bulletin ATR72-92-1044, Revision 02, dated April 12, 2018 (for Model ATR72-212A airplanes); as applicable. Although ATR Service Bulletin ATR42-92-0033, Revision 02, dated April 12, 2018; and ATR Service Bulletin ATR72-92-1044, Revision 02, dated April 12, 2018; specify reporting, this AD does not include that requirement.

#### **(j) New Requirements of This AD: Corrective Action**

If the inspection required by paragraph (h) or (i) of this AD reveals that any bracket is missing or any wire is damaged, before further flight, do applicable corrective actions, in accordance with the flowchart in paragraph 1.C., "Description," and the Accomplishment Instructions of ATR Service Bulletin ATR42-92-0033, Revision 02, dated April 12, 2018 (for Model ATR42-500 airplanes); or ATR Service Bulletin ATR72-92-1044, Revision 02, dated April 12, 2018 (for Model ATR72-212A airplanes); as applicable. Where ATR Service Bulletin ATR42-92-0033, Revision 02, dated April 12, 2018; and ATR Service Bulletin ATR72-92-1044, Revision 02, dated April 12, 2018; specify to contact ATR-GIE Avions de Transport Régional for appropriate action, before further flight, accomplish corrective actions in accordance with the procedures specified in paragraph (1)(2) of this AD.

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

This paragraph provides credit for actions required by paragraphs (h), (i), and (j) of this AD, if those actions were performed before the effective date of this AD using ATR Service Bulletin ATR42-92-0033, dated May 3, 2017, or Revision 01, dated July 20, 2017; or ATR Service Bulletin ATR72-92-1044, dated May 3, 2017, or Revision 01, dated July 20, 2017, as applicable. ATR Service Bulletin ATR42-92-0033, dated May 3, 2017; and ATR72-92-1044, dated May 3, 2017, were

previously incorporated by reference in AD 2017-24-01. ATR Service Bulletin ATR42-92-0033 Revision 01, dated July 20, 2017; and ATR72-92-1044, Revision 01, dated July 20, 2017, were not previously incorporated by reference.

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

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Section, Transport Standards Branch, 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 Section, send it to the attention of the person identified in paragraph (m)(2) of this AD. 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: 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 Section, Transport Standards Branch, FAA; or, the European Aviation Safety Agency (EASA); or, ATR–GIE Avions de Transport Régional's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

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

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2018-0105, dated May 08, 2018, 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-2018-0712.

(2) For more information about this AD, contact Shahram Daneshmandi, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-321-3220.

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

### **(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 this AD specifies otherwise.

(i) ATR Service Bulletin ATR42- 92-0033, Revision 02, dated April 12, 2018.

(ii) ATR Service Bulletin ATR72-92-1044, Revision 02, dated April 12, 2018.

(3) For service information identified in this AD, contact ATR–GIE Avions de Transport Régional, 1 Allée Pierre Nadot, 31712 Blagnac Cedex, France; telephone +33 (0) 5 62 21 62 21; fax +33 (0) 5 62 21 67 18; email [; internet <http://www.atr-aircraft.com>.](mailto:aircraft.com)

(4) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(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 Des Moines, Washington, on August 8, 2018.  
Michael Kaszycki,  
Acting Director, System Oversight Division,  
Aircraft Certification Service.