FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES

LARGE AIRCRAFT

BIWEEKLY 2019-22

10/14/2019 - 10/27/2019

Federal Aviation Administration
Continued Operational Safety Policy Section, AIR-141
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Oklahoma City, OK 73125-0460

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LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability

Information Key: E – Emergency; COR – Correction; R – Replaces, A – Affects

Biweekly 2019-01

2018-22-07		Engine Alliance	GP7270, GP7272, and GP7277 model turbofan engines
2018-23-12	COR	Zodiac Aero Evacuation Systems	Fusible plugs installed on emergency evacuation equipment
2018-25-08	R 2017-22-07	Airbus SAS	A319, A320, A321 airplanes
2018-26-01	R 2018-18-01	CFM International S.A.	CFM56-7B turbofan engines
2018-26-03		The Boeing Company	757-200 series airplanes
2018-26-04		Airbus SAS	A350-941 and -1041 airplanes
2018-26-05	A 2015-19-01	The Boeing Company	777-200, 777-200LR, 777-300, 777-300ER, and 777F series airplanes
2018-26-06		The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series airplanes

Biweekly 2019-02

2019-01-01		The Boeing Company	787-8 airplanes

Biweekly 2019-03

2019-01-01	COR	The Boeing Company	787-8 airplanes

Biweekly 2019-04

2018-23-04		Bombardier, Inc.	DHC-8-102, -103, -106, -201, -202, -301, -311, and -315 airplanes
2018-24-01		International Aero Engines	PW1133G-JM, PW1133GA-JM, PW1130G-JM, PW1127G-JM, PW1127GA-JM, PW1127G1-JM, PW1124G-JM, PW1124G1-JM, and PW1122G-JM turbofan engines
2019-01-03	R 2016-18-01	The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series airplanes
2019-01-04		The Boeing Company	787 series airplanes
2019-01-05	A 2017-05-10	Airbus SAS	A330-201, A330-202, A330-203, A330-223, A330-243, A330-223F, A330-243F, A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342, and A330-343 airplanes
2019-01-06		The Boeing Company	737-100, -200, -200C, -300, -400, and -500 series airplanes
2019-01-07		Airbus SAS	A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes
2019-01-08		The Boeing Company	777-200, -200LR, -300, and -300ER series airplanes
2019-02-01	R 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
2019-02-03		The Boeing Company	787-8, 787-9, and 787-10 airplane
2019-02-04	R 2018-22-05	Engine Alliance	GP7270, GP7272, and GP7277 turbofan engines
2019-03-01		Pratt & Whitney Division	PW4074, PW4074D, PW4077, PW4077D, PW4084D, PW4090, and PW4090-3 turbofan engines

Biweekly 2019-05

2018-21-14		Zodiac Aerotechnics	MC10 series crew oxygen mask regulators
2018-26-07		Airbus SAS	A350-941 and -1041 airplanes Note: Was missing from BW2019-01
2018-26-08		Airbus SAS	A320-214, A320-232, A320-233, A321-211, and A321-231 airplanes Note: Was missing from BW2019-01
2019-03-03	A 2016-17-03	Airbus SAS	A318, A319, A320, A321 airplanes
2019-03-04	R 2018-11-16	Engine Alliance	GP7270 and GP7277 model turbofan engines
2019-03-06		The Boeing Company	737-300, -400, and -500 series airplanes
2019-03-07	R 2017-16-05	The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series airplanes
2019-03-08		Airbus SAS	A350-941 airplanes

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AD No.	Information	Manufacturer	Applicability
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2019-03-09		Airbus SAS	A310-304, -322, -324, and -325 airplanes
2019-03-10	R 2017-07-05	Airbus SAS	A300 airplanes
2019-03-11		Airbus SAS	A350-941 and -1041 airplanes
2019-03-15		Airbus SAS	A330-201, -202, and -203; A330-301, -302, and -303 airplanes
2019-03-17	A 2017-25-04	Airbus SAS	A318, A319, A320, A321 airplanes
2019-03-19		Saab AB, Saab Aeronautics	SAAB 2000 airplanes
2019-03-20	A 2014-16-23 A 2016-16-09	Dassault Aviation	FALCON 7X airplanes
2019-03-21		Embraer S.A.	ERJ 190-100 STD, -100 LR, and -100 IGW; ERJ 190-200 STD, -200 LR, and -200 IGW airplanes
2019-03-23		Airbus SAS	A330, A340 airplanes
Biweekly 2019-06			
2019-03-13		Gulfstream Aerospace LP	Gulfstream G150 airplanes
2019-03-14		Dassault Aviation	FAN JET FALCON and FAN JET FALCON SERIES C, D, E, F, and G airplanes
2019-03-16	A 2006-25-06 A 97-04-08	Fokker Services B.V.	F.27 Mark 100, 200, 300, 400, 500, 600, and 700 airplanes
2019-03-18		Airbus SAS	A318, A319, A320 airplanes
2019-03-22		Bombardier, Inc.	BD-700-1A10 and BD-700-1A11 airplanes
2019-03-24		The Boeing Company	737-400 series airplanes
2019-03-25	A 2008-02-15	Airbus SAS	A318, A319, A320, A321 airplanes
2019-03-26		The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series airplanes
2019-03-27		Dassault Aviation	Falcon 10 airplanes
2019-03-28	R 2016-07-23	Airbus SAS	A318, A319, A320, A321 airplanes
2019-03-30		Empresa Brasileira de Aeronautica S.A.	EMB-135, EMB-145 airplanes
2019-05-01	R 2017-11-06	Pratt & Whitney Division	PW2037, PW2037D, PW2037M, PW2040, PW2040D, PW2043, PW2143, PW2643, and F117-PW-100 turbofan engines
2019-05-02	R 2017-22-13	Rolls-Royce plc	RB211-Trent 970-84 and RB211-Trent 972-84 turbofan engines
2019-05-08	R 2015-12-08	Airbus SAS	A318, A319, A320, A321 airplanes
Biweekly 2019-07			
2019-05-07	R 2017-20-01	Honeywell International Inc.	TFE731-20R, -20AR, -20BR, and TFE731-40, -40AR, -40BR, and -40R turbofan engines
2019-05-09		Airbus SAS	A320-251N and -271N, and A321-253N airplanes
2019-05-10		Airbus SAS	A350-941 airplanes
2019-05-12		Bombardier, Inc.	CL-600-2C10, -2D15, -2D24, -2E25 airplanes
2019-05-13	R 2007-22-05	Airbus SAS	A300-600 and A310 series airplanes
2019-05-14	R 2012-02-18	Dassault Aviation	MYSTERE-FALCON 50 airplanes
2019-06-01	R 2018-24-01	International Aero Engines	PW1133G-JM, PW1133GA-JM, PW1130G-JM, PW1127G-JM, PW1127GA-JM, PW1127G1-JM, PW1124G-JM, PW1124G1-JM, and PW1122G-JM turbofan engines
2019-06-02		Pratt & Whitney Division	PW4158 turbofan engines
2019-06-06		International Aero Engines AG	V2500-A1, V2522-A5, V2524-A5, V2525-D5, V2527-A5, V2527E-A5, V2527M-A5, V2528-D5, V2530-A5, V2533-A5 turbofan engines
2019-06-07	R 2016-22-05	Pratt & Whitney Division	Certain PW4000 engines (see AD)
Biweekly 2019-08			
2019-06-01	R 2018-24-01	International Aero Engines	PW1133G-JM, PW1133GA-JM, PW1130G-JM, PW1127G-JM, PW1127GA-JM, PW1127G1-JM, PW1124G-JM, PW1124G1-JM, and PW1122G-JM turbofan engines
2019-06-02	COR	Pratt & Whitney Division	PW4158 turbofan engines
2019-06-03	A 2017-01-08	Airbus SAS	A330 and A340 airplanes
2019-06-08		Airbus SAS	A330-223, A330-223F, A330-321, A330-322, and A330-323 airplanes
2019-06-09		Airbus SAS	A350-941 airplanes

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2019-06-12		Airbus SAS	A330-201, -202, and -203; A330-301, -302, and -303 airplanes
2019-07-03		Zodiac Seats France	536-Series Cabin Attendant Seats
Biweekly 2019-09			
2019-07-01	A 2014-26-07	Dassault Aviation	FAN JET FALCON and FAN JET FALCON SERIES C, D, E, F, and G airplanes
2019-07-04	COR	The Boeing Company	757-200, -200PF, -200CB, and -300 series airplanes
2019-07-05	R 2016-19-04	Airbus SAS	A318, A319, A320 and A321 airplanes
2019-07-06		Bombardier, Inc	Model BD-100-1A10 airplanes
2019-07-09		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 model turbofan engines
Biweekly 2019-10			
2019-03-29		Bombardier, Inc	Model BD-100-1A10 airplanes
2019-06-13		The Boeing Company	Model 787 series airplanes
2019-07-05	COR, A 2016-19-04	Airbus SAS	A318, A319, A320 airplanes
2019-08-01		RECARO Aircraft Seating GmbH & Co. KG	Passenger Compartment Equipment
2019-08-02		The Boeing Company	Model 737-100, -200, -200C, -300, -400, and -500 series airplanes
2019-08-05		The Boeing Company	Model 787-8 and 787-9 airplanes
2019-08-06	R 2016-16-01	Airbus SAS	A330-223F and -243F, A330-201, -202, -203, -223, -243 A330-301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes
2019-08-09	A 2017-04-13	The Boeing Company	Model 747-8 and 747-8F series airplanes
2019-08-12		Viking Air Limited	Model CL-215-6B11 (CL-215T Variant) and CL-215-6B11 (CL-415 Variant)
Biweekly 2019-11			
2019-08-03		The Boeing Company	Model 737-100, -200, -200C, -300, -400, and -500 series airplanes
2019-08-07	R 2014-20-04	Airbus SAS	A318, A319, A320 and A321 airplanes
2019-08-08	R 2010-14-05	Bombardier, Inc.	Model CL-600-1A11 (600),Model CL-600-2A12 (601), Model CL-600-2B16 airplanes
2019-09-01		The Boeing Company	Model 737-100, -200, -200C, -300, -400, and -500 series airplanes
Biweekly 2019-12			
2019-08-04	R 2012-25-02	Bombardier, Inc.	Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes
2019-08-11	R 2008-24-14	Bombardier, Inc.	Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes
2019-10-03		The Boeing Company	Model 737-100, -200, -200C, -300, -400, and -500 series airplanes
2019-10-04		BRP-Rotax GmbH & Co KG	BRP-Rotax GmbH & Co KG (Rotax) 912 F2, 912 F3, and 912 F4 engines, Rotax 912 S2, 912 S3, and 912 S4 engines, Rotax 914 F2, 914 F3, and 914 F4 engines, and Rotax 912 F2, 912 F3, 912 F4, 912 S2, 912 S3, 912 S4, 914 F2, 914 F3, and 914 F4 engines
2019-10-05		Viking Air Limited	Models DHC-6-1, DHC-6-100, DHC-6-200, DHC-6-300, and DHC-6-400 airplanes
Biweekly 2019-13			
2019-10-01		Bombardier, Inc	Model CL-600-2A12 (601) airplanes
2019-11-01		Airbus SAS	Model A350-941 airplanes
2019-11-02	R 2017-16-10	The Boeing Company	Model 777-200, -200LR, -300, -300ER, and 777F series airplanes
2019-11-03		The Boeing Company	Model 737-700C, -800, and -900ER series airplanes

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2019-11-06	A 2013-19-23	The Boeing Company	Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes
2019-11-07		Rolls-Royce plc	RB211-524G2-19, RB211-524G2-T-19, RB211-524G3-19, RB211-524G3-T-19, RB211-524H2-19, RB211-524H2-T-19, RB211-524H-36 and RB211-524H-T-36 engines
2019-11-08		International Aero Engines	PW1133G-JM, PW1133GA-JM, PW1130G-JM, PW1129G-JM, PW1127G-JM, PW1127GA-JM, PW1127G1-JM, PW1124G-JM, PW1124G1-JM, and PW1122G-JM model turbofan engines
2019-11-09		Airbus SAS	Model A319-113 and -114 airplanes, and Model A320-211 and -212 airplanes
2019-12-01		CFM International S.A	LEAP-1B21, -1B23, -1B25, -1B27, -1B28, -1B28B1, -1B28B2, -1B28B3, -1B28B2C, -1B28BBJ1, and -1B28BBJ2 model turbofan engines
2019-12-05		CFM International S.A	CFM56-5B1, -5B2, -5B4, -5B5, -5B6, -5B7, -5B1/P, -5B2/P, -5B3/P, -5B4/P, -5B5/P, -5B6/P, -5B7/P, -5B8/P, -5B9/P, -5B3/P1, -5B4/P1, -5B1/2P, -5B2/2P, -5B3/2P, -5B4/2P, -5B6/2P, -5B9/2P, -5B3/2P1, -5B4/2P1, -7B20, -7B22, -7B24, -7B26, -7B27, -7B22/B1, -7B24/B1, -7B26/B1, -7B26/B2, -7B27/B1, -7B27/B3, -7B20/2, -7B22/2, -7B24/2, -7B26/2, -7B27/2, -7B27A model turbofan engines
Biweekly 2019-14			
2019-12-03		Bombardier, Inc.	Model CL-600-2C10 (Regional Jet Series 700, 701 & 702), CL-600-2D15 (Regional Jet Series 705), and CL-600-2D24 (Regional Jet Series 900) airplanes
2019-12-04	R 2018-19-18 A 2014-20-18	Airbus SAS	Model A300 B4-603, B4-620, B4-622, B4-605R, B4-622R, C4-605R Variant F, F4-605R, and F4-622R airplanes
2019-12-07	R 2007-11-11 R 2018-01-11	Airbus SAS	Model A318-111, -112, -121, and -122 ,A319-111, -112, -113, -114, -115, -131, -132, A320-211, -212, -214, -216, -231, -232, -233, A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes
2019-12-10	A 2017-06-06 A 2012-12-07	Fokker Services B.V	Model F28 Mark 0070 and 0100 airplanes
2019-12-13		The Boeing Company	Model 757-200, -200PF, -200CB, and -300 series airplanes
Biweekly 2019-15			
2019-10-02		Saab AB, Saab Aeronautics	Model SAAB 2000 airplanes
2019-12-02		Bombardier Inc.	Model BD-700-1A10 and BD-700-1A11 airplanes
2019-12-08		Bombardier, Inc.	Model CL-600-2D15 (Regional Jet Series 705), CL-600-2D24 (Regional Jet Series 900), and CL-600-2E25 (Regional Jet Series 1000)
2019-12-09		Rockwell Collins, Inc.	Flight Display System Application FDSA-6500
2019-12-11		Bombardier, Inc	Model CL-600-2B19 (Regional Jet Series 100 & 440)
2019-12-16		Airbus SAS	Model A350-941 airplanes
2019-12-17		Bombardier, Inc.	Model DHC-8-102, -103, -106, -201, -202, -301, -311, and -315 airplanes
2019-13-02		The Boeing Company	Model 737-200, -200C, -300, -400, and -500 airplanes
Biweekly 2019-16			
2019-07-10		Northrop Grumman LITEF GmbH LCR-100	Attitude and Heading Reference System (AHRS) Note: This AD was included in Small AD Biweekly 2019-09, but was inadvertently left off the Large AD Biweekly.
2019-13-03		Trig Avionics Limited	Mode S transponders
2019-13-04		ATR-GIE Avions de Transport Régional	Model ATR72-101, -102, -201, -202, -211, -212, and -212A
2019-14-01		Rolls-Royce Deutschland Ltd & Co KG	TAY 650-15 and TAY 651-54 turbofan
2019-14-02		The Boeing Company	Model 737 series
2019-14-04		Airbus SAS	Model A318-111, -112, -121, and -122, A319-111, -112, -113, -114, -115, -131, -132, and -133, A320-211, -212, -214, -216, -231, -232, -233, -251N, -252N, and -271N,

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			A321-111, -112, -131, -211, -212, -213, -231, -232, -251N, -251NX, -252N, -252NX, -253N, -253NX, -271N, -271NX, -272N, and -272NX airplanes
2019-14-05		B/E Aerospace Fischer GmbH	Common Seats
2019-15-05		Rolls-Royce Deutschland Ltd & Co KG	Trent 1000-AE3, Trent 1000-CE3, Trent 1000-D3, Trent 1000-G3, Trent 1000-H3, Trent 1000-J3, Trent 1000-K3, Trent 1000-L3, Trent 1000-M3, Trent 1000-N3, Trent 1000-P3, Trent 1000-Q3 and Trent 1000-R3 engines
Biweekly 2019-17			
2019-14-06		Airbus SAS	A319-111, -112, -115, and -131 airplanes, and Airbus SAS Model A320-214 and -232 airplanes
2019-14-07		Airbus SAS	A320-251N and -271N airplanes; and Model A321-251N, -253N, -271N, and -272N airplanes
2019-14-09		Airbus SAS	A330-223F and -243F
2019-14-10	R 2018-02-11	Airbus SAS	A330-223, -243, -301, -302, -321, -322, -323, -341, -342, and -343 airplanes; and Model A340-211, -212, -213, -311, -312, and -313
2019-14-12		The Boeing Company	737-8 and 737-9
2019-14-13		The Boeing Company	Model 767-200, -300, -300F, and, -400ER series airplanes
2019-14-14		Airbus SAS	A300 B4-601, B4-603, B4-620, and B4-622, A300 B4-605R and B4-622R, A300 F4-605R and F4-622R, A300 C4-605R Variant F, A310-203, -204, -221, -222, -304, -322, -324, and -325 airplanes
2019-14-15	R 2017-25-12	The Boeing Company	737-100, -200, -200C, -300, -400, and -500 series
2019-15-01		Bombardier, Inc.	Model CL-600-2B16 (601-3A, 601-3R, and 604 Variants) airplanes
2019-15-03		328 Support Services GmbH	Model 328-100 airplanes
2019-15-04		Bombardier, Inc.	Model BD-100-1A10 airplanes
2019-15-06	R 2018-22-07	Engine Alliance	GP7270, GP7272, and GP7277 model turbofan
2019-15-07		The Boeing Company	Model 737-100, 737-200, 737-200C, 737-300, 737-400, and 737-500 series
2019-15-08	R2002-07-05	Airbus SAS	Model A300 B2-1A, B2-1C, B2K-3C, B2-203, B4-2C, B4-103, and B4-203, A300 B4-601, B4-603, B4-620, and B4-622, A300 B4-605R and B4-622R,A300 C4-605R Variant F, A300 F4-605R
2019-15-09		Bombardier, Inc.	DHC-8-400, -401, and -402 airplanes
2019-15-10		Safran Aerosystems	life jackets
2019-16-01		International Aero Engines AG	V2525-D5 and V2528-D5 model turbofan engines
2019-16-02		GE Honda Aero Engines	HF120 model turbofan engines
2019-16-04	R 2019-03-04	Engine Alliance	GP7270 and GP7277 model turbofan engines
Biweekly 2019-18			
2019-14-03	R 2016-07-12	Airbus SAS	A318-111, -112; Model A319-111, -112, -113, -114, -115; Model A320-211, -212, -214, -216; and Model A321-111, -112, -211, -212, -213
2019-14-08	R 2016-07-22	Airbus SAS	A300 B4-601, B4-603, B4-620, and B4-622, A300 B4-605R and B4-622R, A300 F4-605R and F4-622R, A300 C4-605R Variant F, A310-203, -204, -221, -222, -304, -322, -324, and -325 airplanes
2019-15-02		Airbus SAS	A321-251N, A321-252N, A321-253N, A321-271N, A321-272N, A321-251NX, A321-252NX, A321-253NX, A321-271NX, and A321-272NX airplanes
2019-16-03		Airbus SAS	A350-941 and -1041 airplanes
2019-16-06		Airbus SAS	A320-251N and A320-271N
2019-16-11	R 2018-20-06	Airbus SAS	A300 F4-605R and F4-622R airplanes
2019-16-14	R 2018-25-01	Rolls-Royce Deutschland Ltd & Co KG	Trent 1000-A, Trent 1000-AE, Trent 1000-C, Trent 1000-CE, Trent 1000-D, Trent 1000-E, Trent 1000-G, and Trent 1000-H turbofan
2019-16-15		Pratt & Whitney	PW1519G, PW1521G, PW1521GA, PW1524G, PW1525G, PW1521G-3, PW1524G-3, PW1525G-3, PW1919G, PW1921G, PW1922G, PW1923G, and PW1923G-A model turbofan

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2019-17-01	R 2017-11-09	Learjet, Inc	Model 60 airplanes
Biweekly 2019-19			
2019-15-07	COR	The Boeing Company	737-100, 737-200, 737-200C, 737-300, 737-400, and 737-500 series
2019-16-05		The Boeing Company	777-200, -200LR, -300, -300ER, and 777F series
2019-16-09		Bombardier, Inc	DHC-8-400, -401, and -402 airplanes
2019-16-10		The Boeing Company	787-8 airplanes
2019-16-12	R 2005-20-01	The Boeing Company	737-100, -200, -200C, -300, -400, and -500 series
2019-17-03		Airbus SAS	A320-214 and -271N airplanes and Model A321-211 and -231 airplanes
2019-17-04	R 2019-06-09	Airbus SAS	A350-941 airplanes
2019-17-05		Airbus SAS	A330-223F and -243F, A330-201, -202, -203, -223, and -243, A330-301, -302, -303, -321, -322, -323, -341, -342, and -343, A340-211, -212, and -21, A340-311, -312, and -313, A340-541 and -642 airplanes
2019-17-07		Bombardier, Inc	CL-600-2B19 (Regional Jet Series 100 & 440), CL-600-2C10 (Regional Jet Series 700, 701 & 702), CL-600-2D15 (Regional Jet Series 705), CL-600-2D24 (Regional Jet Series 900), CL-600-2E25 (Regional Jet Series 1000)
2019-18-01		International Aero Engines AG	AG V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, and V2533-A5 model turbofan
Biweekly 2019-20			
2019-16-07	R 2016-12-09	Airbus SAS	A330-201, -202, -203, -223, and -243, A330-223F and -243F, A330-301, -302, -303, -321, -322, -323, -341, -342, and -343, A340-211, -212, and -213, A340-311, -312, and -313 airplanes
2019-17-06		Fokker Services B.V	F28 Mark 0070 and 0100
2019-18-03		The Boeing Company	Model 737 series
2019-18-04	R 2005-17-14	Airbus SAS	A300 B2-1A, B2-1C, B2K-3C, B2-203, B4-2C, B4-103, and B4-203, A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R and F4-622R, A300 C4-605R Variant F, A310-203, -204, -221, -222, -304, -322, -324, and -325 airplanes
2019-18-05		De Havilland Aircraft of Canada Limited	DHC-8-400, -401, and -402
2019-18-06		Airbus SAS	A318-112, -121, and -122; A319-111, -112, -115, -131, -132, and -133; A320-214, -216, -232, -233, -251N, and -271N; and A321-211, -212, -213, -231, -232, -251N, -253N, -271N, and -272N
2019-18-07	R 2015-17-14	Airbus SAS	A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; Model A320-211, -212, -214, -216, -231, -232, and -233 airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232
2019-18-08	R 2019-16-04	Engine Alliance	GP7270 and GP7277 model turbofan
2019-18-09		Lockheed Martin Corporation/Lockheed Martin Aeronautics Company	382, 382B, 382E, 382F, and 382G
2019-19-03		Embraer S.A	ERJ 170-100 LR, -100 STD, -100 SE, and -100 SU airplanes; and Model ERJ 170-200 LR, -200 SU, -200 STD, and -200 LL, ERJ 190-100 STD, -100 LR, and -100 IGW airplanes; and ERJ 190-200 STD, -200 LR, and -200 IGW, ERJ 190-100 ECJ
2019-19-04		Saab AB, Saab Aeronautics	SAAB 2000
2019-19-11		Pratt & Whitney	PW1519G, PW1521G, PW1521GA, PW1524G, PW1525G, PW1521G-3, PW1524G-3, PW1525G-3, PW1919G, PW1921G, PW1922G, PW1923G, and PW1923G-A turbofan

LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability

Information Key: E – Emergency; COR – Correction; R – Replaces, A – Affects

Biweekly 2019-21

2019-16-08	R 2018-22-13	Airbus SAS	Model A350-941 and -1041
2019-16-13		The Boeing Company	Model 777-200 and -300
2019-19-05		Airbus SAS	A350-941 and -1041 airplanes
2019-19-06		Airbus SAS	A330-202, -243, -243F, -302, -323, and -343 airplanes
2019-19-07		Airbus SAS	Model A300 B2-1A, B2-1C, B2K-3C, B2-203, B4-2C, B4-103, B4-203, A300 B4-601, B4-603, B4-620, and B4-622, A300 B4-605R and B4-622R, A300 F4-605R and F4-622R, A300 C4-605R Variant F, A310-203, -204, -221, -222, -304, -322, -324, and -325
2019-19-09		Airbus SAS	A330-223F and -243F, A330-201, -202, -203, -223, and -243, A330-301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes
2019-19-14		Airbus SAS	A350-941 and -1041 airplanes
2019-19-15		Airbus SAS	A318-111, -112, -121, and -122, A319-111, -112, -113, -114, -115, -131, -132, and -133, A320-211, -212, -214, -216, -231, -232, -233, -251N, and -271N airplanes, A321-111, -112, -131, -211, -212, -213, -231, -232, -251N, -251NX, -252N, -252NX, -253N, -253NX, -271N, -271NX, -272N, and -272NX airplanes.
2019-19-16	R 2019-05-09	Airbus SAS	Model A320-251N and -271N, A321-253N
2019-19-17	R 2000-03-20 R1	Airbus SAS	A300 B4-601, B4-603, B4-620, and B4-622, A300 B4-605R and B4-622R, A300 F4-605R, A300 C4-605R Variant F airplanes
2019-20-02		The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series
2019-20-07		The Boeing Company	787-8, 787-9, and 787-10 airplanes

Biweekly 2019-22

2019-19-02		The Boeing Company	747-400 and 747-400F series
2019-20-01	R 2018-26-07	Airbus SAS	A350-941 and -1041
2019-20-03		Transport Category Airplanes	See AD
2019-20-05	R 2018-15-01	Rolls-Royce Deutschland Ltd & Co KG	Trent 1000-A, Trent 1000-A2, Trent 1000-AE, Trent 1000-AE2, Trent 1000-AE3, Trent 1000-C, Trent 1000-C2, Trent 1000-CE, Trent 1000-CE2, Trent 1000-CE3, Trent 1000-D, Trent 1000-D2, Trent 1000-D3, Trent 1000-E, Trent 1000-E2, Trent 1000-G, Trent 1000-G2, Trent 1000-G3, Trent 1000-H, Trent 1000-H2, Trent 1000-H3, Trent 1000-J2, Trent 1000-J3, Trent 1000-K2, Trent 1000-K3, Trent 1000-L2, Trent 1000-L3, Trent 1000-M3, Trent 1000-N3, Trent 1000-P3, Trent 1000-Q3 and Trent 1000-R3 model turbofan
2019-20-06		Airbus SAS	A310-203, -204, -221, -222, -304, -322, -324, and -325
2019-20-09	R 2011-18-15	De Havilland Aircraft of Canada Limited	DHC-8-400, -401, and -402
2019-20-12		Airbus SAS	A330-243, -243F, -341, -342, and -343
2019-20-13		Airbus SAS	A330-201, -202, -203, -223, and -243, A330-223F, -243F, A330-301, -302, -303, -321, -322, -323, -341, -342, and -343
2019-21-01		Airbus SAS	A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, and C4-605R Variant F
2019-21-02		Airbus SAS	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343
2019-21-51	E	General Electric Company	GE90-115B model turbofan

2019-19-02 The Boeing Company: Amendment 39-19738; Docket No. FAA-2019-0524; Product Identifier 2019-NM-081-AD.

(a) Effective Date

This AD is effective November 27, 2019.

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 747-400 and 747-400F series airplanes, certificated in any category, as identified in Boeing Alert Requirements Bulletin 747-53A2900 RB, dated April 11, 2019.

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by an evaluation that determined fatigue cracks could develop in the underwing longerons. The FAA is issuing this AD to address cracks in the underwing longerons, which could result in fuel leakage into the pressurized fuselage and increase the risk of a fire, and to address cracks in the adjacent fuselage skin, which could result in rapid decompression. Either condition could adversely affect the structural integrity of the airplane.

(f) Compliance

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

(g) Required Actions

Except as specified by paragraph (h) of this AD: At the applicable times specified in the "Compliance" paragraph of Boeing Alert Requirements Bulletin 747-53A2900 RB, dated April 11, 2019, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin 747-53A2900 RB, dated April 11, 2019.

Note 1 to paragraph (g): Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin 747-53A2900, dated April 11, 2019, which is referred to in Boeing Alert Requirements Bulletin 747-53A2900 RB, dated April 11, 2019.

(h) Exceptions to Service Information Specifications

(1) For purposes of determining compliance with the requirements of this AD: Where Boeing Alert Requirements Bulletin 747-53A2900 RB, dated April 11, 2019, uses the phrase “the original issue date of Requirements Bulletin 747-53A2900 RB,” this AD requires using “the effective date of this AD.”

(2) Where Boeing Alert Requirements Bulletin 747-53A2900 RB, dated April 11, 2019, specifies contacting Boeing for repair instructions: This AD requires doing the repair using a method approved in accordance with the procedures specified in paragraph (i) of this AD.

(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 Company Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO Branch, FAA, 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.

(j) Related Information

For more information about this AD, contact Eric Lin, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3523; email: eric.lin@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 Requirements Bulletin 747-53A2900 RB, dated April 11, 2019.

(ii) [Reserved]

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; phone: 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, email fedreg.legal@nara.gov, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Des Moines, Washington, on September 19, 2019.
Suzanne Masterson,
Acting Director, System Oversight Division,
Aircraft Certification Service.

2019-20-01 Airbus SAS: Amendment 39-19754; Docket No. FAA-2019-0404; Product Identifier 2019-NM-007-AD.

(a) Effective Date

This AD is effective November 21, 2019.

(b) Affected ADs

This AD replaces AD 2018-26-07, Amendment 39-19538 (83 FR 67677, December 31, 2018) ("AD 2018-26-07").

(c) Applicability

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

(d) Subject

Air Transport Association (ATA) of America Code 78, Engine Exhaust.

(e) Reason

This AD was prompted by reports of thrust reverser actuators (TRAs) jamming and the determination that a one-time replacement of affected TRAs (all part numbers) is necessary. The FAA is issuing this AD to address jamming of the TRAs, which could lead to an inadvertent thrust reverser sleeve deployment, possibly resulting in reduced control or performance of the airplane.

(f) Compliance

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

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, the European Union Aviation Safety Agency (EASA) ADs specified in paragraph (g)(1) or (2) of this AD.

(1) EASA AD 2018-0234R1, dated November 13, 2018 ("EASA AD 2018-0234R1"). All provisions specified in EASA AD 2018-0234R1 apply in this AD.

(2) EASA AD 2018-0234R2, dated September 17, 2019 ("EASA AD 2018-0234R2"). All provisions specified in EASA AD 2018-0234R2 apply in this AD.

(h) Exceptions to EASA AD 2018-0234R1 and EASA AD 2018-0234R2

(1) For purposes of determining compliance with the maintenance procedure revisions and repetitive TRA greasing requirements of this AD: Where EASA AD 2018-0234R1 and EASA AD 2018-0234R2 refer to the effective date of EASA AD 2018-0234R1 (November 13, 2018), this AD requires using January 15, 2019 (the effective date of AD 2018-26-07).

(2) For purposes of determining compliance with the TRA replacement requirements of this AD: Where EASA AD 2018-0234R1 and EASA AD 2018-0234R2 refer to their effective dates or November 13, 2018 (the effective date of EASA AD 2018-0234R1), this AD requires using the effective date of this AD.

(3) The master minimum equipment list (MMEL) changes specified in paragraph (1) of EASA AD 2018-0234R1 and EASA AD 2018-0234R2 are not required by this AD.

(4) The “Remarks” sections of EASA AD 2018-0234R1 and EASA AD 2018-0234R2 do not apply to this AD.

(5) Where EASA AD 2018-0234R1 and EASA AD 2018-0234R2 refer to the “the MER,” that document is not required by this AD, and it is not applicable to U.S. operators.

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2018-0234R1 and EASA AD 2018-0234R2 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(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) 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 instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or 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): For any service information referenced in EASA AD 2018-0234R1 or EASA AD 2018-0234R2 that contains RC procedures and tests: Except as specified by paragraph (j)(2) of this AD, RC 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.

(k) Related Information

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.

(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.

(3) The following service information was approved for IBR on November 21, 2019.

(i) European Union Aviation Safety Agency (EASA) AD 2018-0234R2, dated September 17, 2019.

(ii) [Reserved]

(4) The following service information was approved for IBR on January 15, 2019 (83 FR 67677, December 31, 2018).

(i) European Aviation Safety Agency (EASA) AD 2018-0234R1, dated November 13, 2018.

(ii) [Reserved]

(5) For EASA ADs 2018-0234R1 and 2018-0234R2, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 89990 6017; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this EASA AD on the EASA website at https://ad.easa.europa.eu.

Note 1 to paragraph (l)(5): EASA AD 2018-0234R1 can be accessed in the zipped file at the bottom of the web page for EASA AD 2018-0234R2. When EASA posts a revised AD on their website, they watermark the previous AD as “Revised,” alter the file name by adding “_revised” to the end, and move it into a zipped file attached at the bottom of the AD web page.

(6) You may view this material 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. AD 2018-0234R1 and 2018-0234R2 may be found in the AD docket on the internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2019-0404.

(7) You may view this material 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 September 3, 2019.
Michael Kaszycki,
Acting Manager, System Oversight Division,
Aircraft Certification Service.

2019-20-03 Transport Category Airplanes: Amendment 39-19756; Docket No. FAA-2019-0444; Product Identifier 2019-NM-028-AD.

(a) Effective Date

This AD is effective November 19, 2019.

(b) Affected ADs

None.

(c) Applicability

This AD applies to the airplanes identified in figure 1 to paragraph (c) of this AD, certificated in any category, having an affected part (defined in paragraph (g) of this AD) installed as specified in the applicable service information identified in figure 1 to paragraph (c) of this AD.

Figure 1 to paragraph (c) – *Detailed Applicability*

Affected Airplanes, All Manufacturer Serial Numbers	**Fokker Modification Service Bulletin (SB)/Engineering Bulletin (EB) Used to Install Affected Part**
Fokker Services B.V. Model F.27 Mark 050 airplanes	SBF50-46-004
Fokker Services B.V. Model F28 Mark 3000 airplanes	SBF28-46-001
Fokker Services B.V. Model F28 Mark 0070 and Mark 0100 airplanes	SBF100-46-003
Airbus SAS Model A318-111 airplanes; Model A319-111, -112, -114, -115, and -132 airplanes; Model A320-211, -212, -214, -231, -232, and -251N airplanes; and Model A321-211, -231, -232, -251N, and -253N airplanes	EBA319-0025 or -0032; EBA320-0044, -0049, -0059, -0064, -0095, -0097, -0105, -0108, -0124, -0126, -0139, -0140, -0141, -0145, -0150, -0156, -0158, -0160, or -0164
Airbus SAS Model A330-202, -223, -243, -322, and -343 airplanes	EBA330-0004, -0005, or -0007
Airbus SAS Model A340-312 and -313 airplanes	EBA340-0001 or -0004
ATR - GIE Avions de Transport Régional Model ATR42-500 airplanes; and Model ATR72-212 and -212A airplanes	EBAT72-0006, -0007, -0008, -0010, or -0011
The Boeing Company Model 737-300, -400, -500, -700, -800 and -900ER series airplanes	(EASA supplemental type certificate (STC) 10061825, which corresponds to FAA STC ST03939NY) EBB737-0008, -0021, -0022, -0023, -0025, -0031, -0032, -0041, -0044, -0046, -0052, -0068, -0070, -0071, -0088, -0094, -0096, -0098, -0099, -0108, -0113, -0123, -0124, -0133, -0140, -0143, -0147, -0148, -0149 or -0154
The Boeing Company Model 757-200 series airplanes	EBB757-0002, -0004, -0005, or -0010
The Boeing Company Model 767-200 and -300 series airplanes	EBB767-0003, -0004, -0006, -0008, -0009, -0010, -0011, -0014, -0015, or -0018
The Boeing Company Model 777-200LR series airplanes	EBB777-0005 or -0007
Bombardier, Inc., Model CL-600-2B16 (601-3A, 601-3R, and 604 Variants)	EBCL60-0005 or -0008

Affected Airplanes, All Manufacturer Serial Numbers	Fokker Modification Service Bulletin (SB)/Engineering Bulletin (EB) Used to Install Affected Part
airplanes; and Model CL-600-2C10 (Regional Jet Series 700, 701 & 702) airplanes	
Bombardier, Inc., Model DHC-8-202, -311, -315, and -402 airplanes	(EASA STC 10046185, which corresponds to FAA STC ST03700NY) EBDHC8-0019, 022, -0031, or -0034

(d) Subject

Air Transport Association (ATA) of America Code 46, Information systems.

(e) Reason

This AD was prompted by reports of smoke and fumes in the flight deck. The FAA is issuing this AD to address smoke and fumes in the flight deck, which could result in excessive flightcrew workload and injury to flight deck occupants.

(f) Compliance

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

(g) Definition

For the purpose of this AD, an “affected part” is a universal serial bus (USB) receptacle manufactured by Lone Star Aviation, Corporation, having part number LS03-05050-A.

(h) Modification

Within 12 months after the effective date of this AD, modify each affected part in accordance with the Accomplishment Instructions of the applicable Fokker Services B.V. service information identified in paragraphs (h)(1) through (13) of this AD.

(1) Fokker Services Engineering Bulletin EBA320-0167, Revision 2, Sequence 4, dated December 13, 2018.

(2) Fokker Services Engineering Bulletin EBA330-0011, Revision 0, Sequence 9, dated July 27, 2018.

(3) Fokker Services Engineering Bulletin EBA340-0005, Revision 0, Sequence 8, dated July 27, 2018.

(4) Fokker Services Engineering Bulletin EBAT72-0013, Revision 0, Sequence 7, dated July 27, 2018.

(5) Fokker Services Engineering Bulletin EBB737-0156, Revision 3, Sequence 3, dated February 25, 2019.

(6) Fokker Services Engineering Bulletin EBB757-0020, Revision 1, Sequence 3, dated October 2, 2018.

(7) Fokker Services Engineering Bulletin EBB767-0023, Revision 1, Sequence 3, dated October 3, 2018.

(8) Fokker Services Engineering Bulletin EBB777-0009, Revision 1, Sequence 3, dated October 3, 2018.

(9) Fokker Services Engineering Bulletin EBCL60-0010, Revision 1, Sequence 3, dated August 30, 2018.

(10) Fokker Services Engineering Bulletin EBDHC8-0035, Revision 1, Sequence 4, dated December 13, 2018.

(11) Fokker Services F28 Generic Service Bulletin SBF28-46-002, Revision 0, dated July 27, 2018.

(12) Fokker Services F50/60 Generic Service Bulletin SBF50-46-006, Revision 0, dated July 27, 2018.

(13) Fokker Services F100/700 Generic Service Bulletin SBF100-46-008, Revision 0, dated July 27, 2018.

(i) Parts Installation Prohibition

After modification of an airplane as required by paragraph (h) of this AD, no person may install an affected part on that airplane.

(j) 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 the applicable service information specified in paragraphs (j)(1) through (7) of this AD.

(1) Fokker Services Engineering Bulletin EBA320-0167, Revision 1, dated August 30, 2018.

(2) Fokker Services Engineering Bulletin EBDHC8-0035, Revision 0, dated July 27, 2018.

(3) Fokker Services Engineering Bulletin EBB737-0156, Revision 1, dated August 30, 2018.

(4) Fokker Services Engineering Bulletin EBB737-0156, Revision 2, dated October 3, 2018.

(5) Fokker Services Engineering Bulletin EBB757-0020, Revision 0, dated July 27, 2018.

(6) Fokker Services Engineering Bulletin EBB767-0023, Revision 0, dated July 27, 2018.

(7) Fokker Services Engineering Bulletin EBB777-0009, Revision 0, dated July 27, 2018.

(k) 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 (l)(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.

(l) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2018-0259R1, dated February 7, 2019, 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-2019-0444.

(2) For more information about this AD, contact Dan Rodina, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3225.

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

(m) Material Incorporated by Reference

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

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

(i) Fokker Services Engineering Bulletin EBA320-0167, Revision 2, Sequence 4, dated December 13, 2018.

(ii) Fokker Services Engineering Bulletin EBA330-0011, Revision 0, Sequence 9, dated July 27, 2018.

(iii) Fokker Services Engineering Bulletin EBA340-0005, Revision 0, Sequence 8, dated July 27, 2018.

(iv) Fokker Services Engineering Bulletin EBAT72-0013, Revision 0, Sequence 7, dated July 27, 2018.

(v) Fokker Services Engineering Bulletin EBB737-0156, Revision 3, Sequence 3, dated February 25, 2019.

(vi) Fokker Services Engineering Bulletin EBB757-0020, Revision 1, Sequence 3, dated October 2, 2018.

(vii) Fokker Services Engineering Bulletin EBB767-0023, Revision 1, Sequence 3, dated October 3, 2018.

(viii) Fokker Services Engineering Bulletin EBB777-0009, Revision 1, Sequence 3, dated October 3, 2018.

(ix) Fokker Services Engineering Bulletin EBCL60-0010, Revision 1, Sequence 3, dated August 30, 2018.

(x) Fokker Services Engineering Bulletin EBDHC8-0035, Revision 1, Sequence 4, dated December 13, 2018.

(xi) Fokker Services F28 Generic Service Bulletin SBF28-46-002, Revision 0, dated July 27, 2018.

(xii) Fokker Services F50/60 Generic Service Bulletin SBF50-46-006, Revision 0, dated July 27, 2018.

(xiii) Fokker Services F100/700 Generic Service Bulletin SBF100-46-008, Revision 0, dated July 27, 2018.

(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; 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, email fedreg.legal@nara.gov or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Des Moines, Washington, on September 27, 2019.
Michael Kaszycki,
Acting Director, System Oversight Division,
Aircraft Certification Service.

2019-20-05 Rolls-Royce Deutschland Ltd & Co KG (Type Certificate previously held by Rolls-Royce plc) Turbofan Engines: Amendment 39-19758; Docket No. FAA-2019-0693; Product Identifier 2017-NE-43-AD.

(a) Effective Date

This AD is effective October 30, 2019.

(b) Affected ADs

This AD replaces AD 2018-15-01, Amendment 39-19333 (83 FR 34755, July 23, 2018).

(c) Applicability

This AD applies to Rolls-Royce Deutschland Ltd. & Co KG (Type Certificate previously held by Rolls-Royce plc) (RRD) Trent 1000-A, Trent 1000-A2, Trent 1000-AE, Trent 1000-AE2, Trent 1000-AE3, Trent 1000-C, Trent 1000-C2, Trent 1000-CE, Trent 1000-CE2, Trent 1000-CE3, Trent 1000-D, Trent 1000-D2, Trent 1000-D3, Trent 1000-E, Trent 1000-E2, Trent 1000-G, Trent 1000-G2, Trent 1000-G3, Trent 1000-H, Trent 1000-H2, Trent 1000-H3, Trent 1000-J2, Trent 1000-J3, Trent 1000-K2, Trent 1000-K3, Trent 1000-L2, Trent 1000-L3, Trent 1000-M3, Trent 1000-N3, Trent 1000-P3, Trent 1000-Q3 and Trent 1000-R3 model turbofan engines, with an engine serial number (ESN) listed in Appendix 1, 2, or 3 of Rolls-Royce plc (RR) Alert Non-Modification Service Bulletin (NMSB) Trent 1000 72-AK186, Revision 2, dated April 16, 2019, except those engines that have incorporated the modifications in RR Service Bulletin (SB) Trent 1000 72-H818, dated November 14, 2016, or RR SB Trent 1000 72-J559, dated November 27, 2017.

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by the determination that certain intermediate-pressure turbine (IPT) blades are susceptible to shank corrosion which leads to cracking and possible blade separation. The FAA is issuing this AD to prevent the simultaneous failure of both engines installed on an airplane, during flight. The unsafe condition, if not addressed, could result in a dual engine in-flight shutdown and loss of the airplane.

(f) Compliance

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

(g) Required Actions

(1) For engines with an ESN listed in Appendix 1 of RR Alert NMSB Trent 1000 72-AK186, Revision 2, dated April 16, 2019 ("RR Alert NMSB Trent 1000 72-AK186"), prior to reaching the blade cycle life limit listed in Appendix 1 of RR Alert NMSB Trent 1000 72-AK186, or within 30 days of the effective date of this AD, whichever occurs later, remove the IPT blade set and replace with an IPT blade set eligible for installation.

(2) For engines with an ESN listed in Appendix 2 of RR Alert NMSB Trent 1000 72-AK186:

(i) If the engine is in an engine shop visit on the effective date of this AD, remove the IPT blade set and replace with an IPT blade set eligible for installation prior to returning the engine to service; or

(ii) If the engine is not in an engine shop visit on the effective date of this AD and the IPT blade set was not replaced during the previous engine shop visit, remove the IPT blade set and replace with an IPT blade set eligible for installation within 30 days of the effective date of this AD.

(3) For engines that have replaced the IPT blade set per RR NMSB Trent 1000 72-J442, Revision 3, dated October 8, 2018, or RR NMSB Trent 1000 72-J465, Revision 4, dated October 8, 2018, as applicable, remove and replace those blades prior to reaching the "Permitted Cycles of operation since installation in accordance with NMSB 72-J442 or 72-J465" listed in Appendix 3 of RR Alert NMSB Trent 1000 72-AK186, as applicable for each ESN, or within 30 days of the effective date of this AD, whichever occurs later.

Note 1 to paragraph (g): An IPT blade set eligible for installation is a full set of new IPT blades, or a full set of blades that have been inspected per RR NMSB Trent 1000 72-J442, Revision 3, dated October 8, 2018, or RR NMSB Trent 1000 72-J465 Revision 4, October 8, 2018, as applicable by engine model.

(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 case flanges, except that the separation of engine flanges solely for the purposes of transportation without subsequent engine maintenance does not constitute an engine shop visit.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, ECO 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. You may email your request to: ANE-AD-AMOC@faa.gov.

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

(j) Related Information

(1) For more information about this AD, contact Martin Adler, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7088; fax: 781-238-7157; email: martin.adler@faa.gov.

(2) Refer to European Union Aviation Safety Agency (EASA) AD 2019-0135, dated June 11, 2019, for more information. You may examine the EASA AD in the AD docket on the internet at http://www.regulations.gov by searching for and locating it in Docket No. FAA-2019-0693.

(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 plc (RR) Alert Non-Modification Service Bulletin Trent 1000 72-AK186, Revision 2, dated April 16, 2019.

(ii) [Reserved]

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

(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 at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fedreg.legal@nara.gov, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Burlington, Massachusetts, on October 3, 2019.
Robert J. Ganley,
Manager, Engine & Propeller Standards Branch,
Aircraft Certification Service.

2019-20-06 Airbus SAS: Amendment 39-19759; Docket No. FAA-2019-0500; Product Identifier 2019-NM-078-AD.

(a) Effective Date

This AD is effective November 22, 2019.

(b) Affected ADs

This AD affects AD 2017-21-08, Amendment 39-19079 (82 FR 48904, October 23, 2017) ("AD 2017-21-08"); and AD 2018-19-31, Amendment 39-19432 (83 FR 48930, September 28, 2018) ("AD 2018-19-31").

(c) Applicability

This AD applies to Airbus SAS Model A310-203, -204, -221, -222, -304, -322, -324, and -325 airplanes, certificated in any category, all manufacturer serial numbers.

(d) Subject

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

(e) Reason

This AD was prompted by a determination that new or more restrictive airworthiness limitations are necessary. The FAA is issuing this AD to address fatigue cracking, damage, or corrosion in principal structural elements, which could result in reduced structural integrity of the airplane.

(f) Compliance

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

(g) Maintenance or Inspection Program Revision

Within 90 days after the effective date of this AD, revise the existing maintenance or inspection program, as applicable, to incorporate the information specified in Airbus A310 Airworthiness Limitations Section (ALS), Part 2, Damage Tolerant Airworthiness Limitation Items (DT-ALI), Revision 03, dated December 14, 2018 ("Airbus A310 ALS, Part 2, DT-ALI, Revision 03"), as supplemented by Airbus A310 ALS, Part 2, DT-ALI, Variation 3.1, Issue 01, dated December 20, 2018 ("Airbus A310 ALS, Part 2, DT-ALI, Variation 3.1, Issue 01"). The initial compliance time for doing the tasks is at the time specified in Airbus A310 ALS, Part 2, DT-ALI, Revision 03, as supplemented by Airbus A310 ALS, Part 2, DT-ALI, Variation 3.1, Issue 01; or within 90 days after the effective date of this AD; whichever occurs later.

(h) No Alternative Actions or Intervals

After the existing 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 2017-21-08 and AD 2018-19-31

Accomplishing the actions required by this AD terminates all requirements of AD 2017-21-08 and AD 2018-19-31.

(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 Union 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): Except as required by paragraph (j)(2) of this AD: 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.

(k) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2019-0091, dated April 26, 2019, 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-2019-0500.

(2) For more information about this AD, contact Dan Rodina, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3225.

(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 A310 Airworthiness Limitations Section (ALS), Part 2, Damage Tolerant Airworthiness Limitation Items (DT-ALI), Revision 03, dated December 14, 2018.

(ii) Airbus A310 Airworthiness Limitations Section (ALS), Part 2, Damage Tolerant Airworthiness Limitation Items (DT-ALI), Variation 3.1, Issue 01, dated December 20, 2018.

(3) For service information identified in this AD, contact Airbus SAS, Airworthiness Office–EAW, 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; 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, email fedreg.legal@nara.gov, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Des Moines, Washington, on October 3, 2019.
Dionne Palermo,
Acting Director, System Oversight Division,
Aircraft Certification Service.

2019-20-09 De Havilland Aircraft of Canada Limited (Type Certificate Previously Held by Bombardier, Inc.): Amendment 39-19762; Docket No. FAA-2019-0493; Product Identifier 2019-NM-043-AD.

(a) Effective Date

This AD is effective November 27, 2019.

(b) Affected ADs

This AD replaces AD 2011-18-15, Amendment 39-16797 (76 FR 54093, August 31, 2011) ("AD 2011-18-15").

(c) Applicability

This AD applies to De Havilland Aircraft of Canada Limited Model DHC-8-400, -401, and -402 airplanes, certificated in any category, serial numbers 4001 through 4437 inclusive.

(d) Subject

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

(e) Reason

This AD was prompted by in-service reports of cracked barrel nuts found at the front spar locations of the wing-to-fuselage attachment joints, and a loose washer in the barrel nut assembly. The FAA is issuing this AD to address cracked barrel nuts and a loose washer in the barrel nut assembly, which could result in failure of the barrel nuts, compromising the structural integrity of the wing-to-fuselage attachments, and possible separation of the wing from the airplane during flight.

(f) Compliance

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

(g) Retained Initial and Repetitive Checks and Inspections, With Revised Service Information

This paragraph restates the requirements of paragraph (g) of AD 2011-18-15, with revised service information. At the applicable time specified in paragraph (g)(1) or (2) of this AD: Do a torque check to determine if the bolt preload is correct, and if the preload is correct, before further flight, do a detailed inspection of each barrel nut and cradle for cracking, pitting or corrosion, in accordance with paragraph 3.B., part A, of the Accomplishment Instructions of Bombardier Alert Service Bulletin A84-57-25, dated July 20, 2011; or Bombardier Service Bulletin A84-57-25, Revision A, dated July 16, 2018. After the effective date of this AD, only Bombardier Service Bulletin A84-57-25, Revision A, dated July 16, 2018, may be used. Repeat the torque check and, as

applicable, the inspection thereafter at intervals not to exceed 2,000 flight hours or 12 months, whichever occurs first.

(1) For airplanes that have accumulated 1,900 or more total flight hours as of September 15, 2011 (the effective date of AD 2011-18-15), or for which it has been 12 months or more since the date of issuance of the original Canadian airworthiness certificate or the date of issuance of the original Canadian export certificate of airworthiness as of September 15, 2011: Within 100 flight hours or 10 days after September 15, 2011, whichever occurs first.

(2) For airplanes that have accumulated less than 1,900 total flight hours as of September 15, 2011 (the effective date of AD 2011-18-15), and for which it has been less than 12 months since the date of issuance of the original Canadian airworthiness certificate or the date of issuance of the original Canadian export certificate of airworthiness as of September 15, 2011: Prior to the accumulation of 2,000 total flight hours or within 12 months since the date of issuance of the original Canadian standard airworthiness certificate or the date of issuance of the original Canadian export certificate of airworthiness, whichever occurs first.

(h) Retained Corrective Actions for Incorrect Bolt Preload, With Revised Service Information

This paragraph restates the requirements of paragraph (h) of AD 2011-18-15, with revised service information. If any bolt preload is found to be incorrect (i.e., the ring can be rotated during any torque check required by paragraph (g) of this AD), before further flight, replace all hardware at that location (except the saddle washer and retainer) in accordance with paragraph 3.B., part B, of the Accomplishment Instructions of Bombardier Alert Service Bulletin A84-57-25, dated July 20, 2011; or paragraph 3.B. of the Accomplishment Instructions of Bombardier Service Bulletin 84-57-26, Revision C, dated July 16, 2018. After the effective date of this AD, only Bombardier Service Bulletin 84-57-26, Revision C, dated July 16, 2018, may be used.

(i) Retained Corrective Actions for Barrel Nut/Cradle Discrepancies, With Revised Service Information

This paragraph restates the requirements of paragraph (i) of AD 2011-18-15, with revised service information. If any crack, pitting, or corrosion of the barrel nut or cradle is found during any inspection required by paragraph (g) of this AD, before further flight, replace all hardware at that location (except the saddle washer and retainer) in accordance with paragraph 3.B., part B, of the Accomplishment Instructions of Bombardier Alert Service Bulletin A84-57-25, dated July 20, 2011; or paragraph 3.B. of the Accomplishment Instructions of Bombardier Service Bulletin 84-57-26, Revision C, dated July 16, 2018. After the effective date of this AD, only Bombardier Service Bulletin 84-57-26, Revision C, dated July 16, 2018, may be used.

(j) New Requirement of This AD: Replacement and Visual Inspection

Within 12,000 flight hours or 72 months after the effective date of this AD, whichever occurs first: Do a visual inspection of the saddle washer and retainer for any damage (cracks) or corrosion; and replace the wing front spar barrel nuts, bolts, and preload indicating washers; in accordance with paragraph 3.B. of the Accomplishment Instructions of Bombardier Service Bulletin 84-57-26, Revision C, dated July 16, 2018.

(k) New Corrective Actions for Damage (Cracks) or Corrosion

If any damage (cracks) or corrosion is found during any inspection required by paragraph (j) of this AD: Before further flight, accomplish corrective actions in accordance with the procedures specified in paragraph (p)(2) of this AD.

(l) New Provision of This AD: Terminating Actions for Repetitive Torque Checks and Detailed Inspections

Accomplishment of the applicable actions required by paragraphs (j) and (k) of this AD, at all four barrel nut locations, terminates the repetitive torque checks and detailed inspections of paragraph (g) of this AD.

(m) Parts Installation Prohibition

As of the effective date of this AD, no person may install, on any airplane, a barrel nut having part number DSC228-16.

(n) Retained Special Flight Permit Provisions, With Revised Compliance Language

This paragraph restates the requirements of paragraph (k) of AD 2011-18-15, with revised compliance language. Special flight permits, as described in 14 CFR 21.197 and 21.199, may be issued to operate the airplane to a location where the requirements of this AD can be accomplished, but concurrence by the Manager, New York ACO Branch, FAA, is required before issuance of the special flight permit. Before using any approved special flight permits, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office (FSDO). Operators must request a repair drawing from Bombardier, Inc., or De Havilland Aircraft of Canada Limited, which provides recommendations for a one-time special flight permit. After the effective date of this AD, only De Havilland Aircraft of Canada Limited may provide the repair drawing. The repair drawing will be applicable to the operator's aircraft serial number only. Special flight permits may be permitted provided that the conditions specified in paragraphs (n)(1) through (5) of this AD are met.

(1) Only one barrel nut out of four is cracked, one cradle is cracked, or one washer is loose; all other strut (wing front spar) bolt locations must be free of damage.

(2) The airplane must operate with reduced airspeed not to exceed 180 KIAS (knots indicated air speed). No passengers and no cargo are onboard.

(3) The airplane must not operate in known or forecast turbulence, other than light turbulence.

(4) The airplane descent rate on landing flare-out is not to exceed 5 feet per second.

(5) Heavy braking or hard turning of the airplane upon landing is to be avoided if possible.

(o) Credit for Previous Actions

(1) This paragraph restates the provisions of paragraph (j) of AD 2011-18-15, with revised formatting and updated service information. This paragraph provides credit for torque checks, initial inspections, and replacements required by paragraphs (g) and (h) of this AD, if those actions were performed before the effective date of this AD using the service information specified in paragraphs (o)(1)(i) through (v) of this AD, which is not incorporated by reference in this AD. The repetitive torque checks, and as applicable, the inspections required by paragraph (g) of this AD must be continued at the time specified.

(i) Bombardier Alert Service Bulletin A84-57-19, dated February 1, 2008.

(ii) Bombardier Alert Service Bulletin A84-57-19, Revision A, dated February 6, 2008.

(iii) Bombardier Alert Service Bulletin A84-57-19, Revision B, dated March 6, 2008.

(iv) Bombardier Alert Service Bulletin A84-57-19, Revision C, dated August 20, 2008.

(v) Bombardier Alert Service Bulletin A84-57-19, Revision D, dated August 12, 2011.

(2) This paragraph provides credit for the actions required by paragraphs (h) through (k) of this AD, if those actions were performed before the effective date of this AD using the service information specified in paragraphs (o)(2)(i) through (iii) of this AD. This service information is not incorporated by reference in this AD.

(i) Bombardier Service Bulletin 84-57-26, dated March 21, 2013.

(ii) Bombardier Service Bulletin 84-57-26, Revision A, dated July 18, 2014.

(iii) Bombardier Service Bulletin 84-57-26, Revision B, dated February 26, 2015.

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

(i) Bombardier Alert Service Bulletin A84-57-25, dated July 20, 2011, which was incorporated by reference in AD 2011-18-15.

(ii) Bombardier Service Bulletin A84-57-25, Revision A, dated July 16, 2018, which is incorporated by reference in this AD.

(p) Other FAA AD Provisions

(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; phone: 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 Transport Canada Civil Aviation (TCCA); or De Havilland Aircraft of Canada Limited's TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(3) AMOCs approved previously for AD 2011-18-15 are approved as AMOCs for the corresponding provisions of this AD.

(q) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2011-24R1, dated January 21, 2019, 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-2019-0493.

(2) For more information about this AD, contact Andrea Jimenez, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: 516-228-7330; fax: 516-794-5531; email: 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 (r)(4) and (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.

(3) The following service information was approved for IBR on November 27, 2019.

(i) Bombardier Service Bulletin A84-57-25, Revision A, dated July 16, 2018.

(ii) Bombardier Service Bulletin 84-57-26, Revision C, dated July 16, 2018.

(4) For service information identified in this AD, contact De Havilland Aircraft of Canada Ltd., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; phone: 416-375-4000; fax: 416-375-4539; email: thd@dehavilland.com; internet: https://dehavilland.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, email fedreg.legal@nara.gov, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Des Moines, Washington, on October 7, 2019.
Michael Kaszycki,
Acting Manager, System Oversight Division,
Aircraft Certification Service.

2019-20-12 Airbus SAS: Amendment 39-19765; Docket No. FAA-2019-0580; Product Identifier 2019-NM-019-AD.

(a) Effective Date

This AD is effective November 26, 2019.

(b) Affected ADs

This AD affects AD 2017-07-03, Amendment 39-18841 (82 FR 15985, March 31, 2017; corrected April 13, 2017 (82 FR 17749)) ("AD 2017-07-03").

(c) Applicability

This AD applies to all Airbus SAS Model A330-243, -243F, -341, -342, and -343 airplanes, certificated in any category.

(d) Subject

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

(e) Reason

This AD was prompted by a determination that cracks can develop on the ripple damper weld of the hydraulic pressure tube assembly and reports of failure of the ripple damper of the hydraulic pressure tube assembly. The FAA is issuing this AD to address cracking of the ripple damper weld of the hydraulic pressure tube assembly, which could lead to hydraulic fluid leakage and consequent loss of the green hydraulic system. This condition, if combined with other system failures, could result in reduced control of the airplane.

(f) Compliance

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

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2019-0031, dated February 13, 2019 ("EASA AD 2019-0031").

(h) Exceptions to EASA AD 2019-0031

(1) For purposes of determining compliance with the requirements of this AD: Where EASA AD 2019-0031 refers to its effective date, this AD requires using the effective date of this AD.

(2) The “Remarks” section of EASA AD 2019-0031 does not apply to this AD.

(i) Terminating Action for AD 2017-07-03

Accomplishing the actions required by this AD terminates all requirements of AD 2017-07-03 for that airplane only.

(j) No Reporting Requirement

Although the service information referenced in EASA AD 2019-0031 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(k) 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 (l) 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 instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or 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): For any service information referenced in EASA AD 2019-0031 that contains RC procedures and tests: Except as required by paragraph (k)(2) of this AD, RC 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.

(l) Related Information

For more information about this AD, contact Vladimir Ulyanov, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3229.

(m) Material Incorporated by Reference

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

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

(i) European Union Aviation Safety Agency (EASA) AD 2019-0031, dated February 13, 2019.

(ii) [Reserved]

(3) For information about EASA AD 2019-0031, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 89990 6017; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this EASA AD on the EASA website at https://ad.easa.europa.eu.

(4) You may view this material 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. This material may be found in the AD docket on the internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2019-0580.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fedreg.legal@nara.gov, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Des Moines, Washington, on October 11, 2019.
Michael Kaszycki,
Acting Director, System Oversight Division,
Aircraft Certification Service.

2019-20-13 Airbus SAS: Amendment 39-19766; Docket No. FAA-2019-0492; Product Identifier 2019-NM-045-AD.

(a) Effective Date

This AD is effective November 26, 2019.

(b) Affected ADs

This AD affects the following ADs.

(1) AD 2019-01-05, Amendment 39-19544 (84 FR 4310, February 15, 2019) ("AD 2019-01-05").

(2) AD 2017-25-13, Amendment 39-19127 (82 FR 59960, December 18, 2017) ("AD 2017-25-13").

(3) AD 2014-16-22, Amendment 39-17946 (79 FR 49442, August 21, 2014) ("AD 2014-16-22").

(c) Applicability

This AD applies to the Airbus SAS airplanes specified in paragraphs (c)(1) through (3) of this AD, certificated in any category, with an original airworthiness certificate or original export certificate of airworthiness issued on or before October 15, 2018.

(1) Model A330-201, -202, -203, -223, and -243 airplanes.

(2) Model A330-223F and -243F airplanes.

(3) Model A330-301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes.

(d) Subject

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

(e) Reason

This AD was prompted by the need for new or more restrictive airworthiness limitations that refer to preventive maintenance tasks including replacement of life-limited parts. Failure to accomplish the tasks could result in an unsafe condition such as reduced airplane controllability due to the failure of system components.

(f) Compliance

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

(g) Maintenance or Inspection Program Revision

Within 90 days after the effective date of this AD, revise the existing maintenance or inspection program, as applicable, to incorporate the information specified in Airbus A330 Airworthiness

Limitations Section (ALS) Part 4, System Equipment Maintenance Requirements (SEMR), Revision 07, dated October 15, 2018. The component life limits and the initial compliance time for doing the tasks are at the times specified in Airbus A330 Airworthiness Limitations Section (ALS) Part 4, System Equipment Maintenance Requirements (SEMR), Revision 07, dated October 15, 2018, or within 90 days after the effective date of this AD, whichever occurs later.

(h) No Alternative Actions or Intervals

After the existing 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 Actions

(1) Accomplishing the actions required by this AD terminates all requirements of AD 2019-01-05.

(2) Accomplishing the action required by task number 274400-00004-1-E of Airbus A330 Airworthiness Limitations Section (ALS) Part 4, System Equipment Maintenance Requirements (SEMR), Revision 07, dated October 15, 2018, within the compliance time specified for that task in Airbus A330 Airworthiness Limitations Section (ALS) Part 4, System Equipment Maintenance Requirements (SEMR), Revision 07, dated October 15, 2018, terminates all requirements of AD 2017-25-13 for Airbus SAS Model A330-200, -200 Freighter, and -300 series airplanes only.

(3) Accomplishing the action required by task number 213100-00001-1-E of Airbus A330 Airworthiness Limitations Section (ALS) Part 4, System Equipment Maintenance Requirements (SEMR), Revision 07, dated October 15, 2018, within the compliance time specified for that task in Airbus A330 Airworthiness Limitations Section (ALS) Part 4, System Equipment Maintenance Requirements (SEMR), Revision 07, dated October 15, 2018, terminates all requirements of AD 2014-16-22 for Airbus SAS Model A330-200, -200 Freighter, and -300 series airplanes only.

(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 Union 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.

(k) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2019-0047, dated March 11, 2019, 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-2019-0492.

(2) For more information about this AD, contact Vladimir Ulyanov, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3229.

(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 A330 Airworthiness Limitations Section (ALS) Part 4, System Equipment Maintenance Requirements (SEMR), Revision 07, dated October 15, 2018.

(ii) [Reserved]

(3) For service information identified in this AD, contact Airbus SAS, Airworthiness Office–EAL, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; email airworthiness.A330-A340@airbus.com; internet http://www.airbus.com.

(4) You may 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, email fedreg.legal@nara.gov, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Des Moines, Washington, on October 11, 2019.
Michael Kaszycki,
Acting Director, System Oversight Division,
Aircraft Certification Service.

2019-21-01 Airbus SAS: Amendment 39-19767; Docket No. FAA-2019-0501; Product Identifier 2019-NM-077-AD.

(a) Effective Date

This AD is effective November 29, 2019.

(b) Affected ADs

This AD affects AD 2018-01-07, Amendment 39-19148 (83 FR 2042, January 16, 2018) ("AD 2018-01-07"); and AD 2018-19-33, Amendment 39-19434 (83 FR 48932, September 28, 2018) ("AD 2018-19-33").

(c) Applicability

This AD applies to Airbus SAS Model A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, and C4-605R Variant F airplanes, certificated in any category, all manufacturer serial numbers.

(d) Subject

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

(e) Reason

This AD was prompted by a determination that new or more restrictive airworthiness limitations are necessary. The FAA is issuing this AD to address fatigue cracking, damage, and corrosion in principal structural elements, which could result in reduced structural integrity of the airplane.

(f) Compliance

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

(g) Maintenance or Inspection Program Revision

Within 90 days after the effective date of this AD, revise the existing maintenance or inspection program, as applicable, to incorporate the information specified in Airbus A300-600 Airworthiness Limitations Section (ALS), Part 2, "Damage Tolerant Airworthiness Limitation Items (DT-ALI)," Revision 03, dated December 14, 2018. The initial compliance time for doing the tasks is at the time specified in Airbus A300-600 Airworthiness Limitations Section (ALS), Part 2, "Damage Tolerant Airworthiness Limitation Items (DT-ALI)," Revision 03, dated December 14, 2018, or within 90 days after the effective date of this AD, whichever occurs later.

(h) No Alternative Actions or Intervals

After the existing 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 2018-01-07 and AD 2018-19-33

Accomplishing the actions required by this AD terminates all requirements of AD 2018-01-07 and AD 2018-19-33.

(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.

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

(ii) AMOCs approved previously for AD 2018-19-33 are approved as AMOCs for the corresponding provisions of this AD.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Union 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): Except as required by paragraph (j)(2) of this AD: 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.

(k) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2019-0090, dated April 26, 2019, 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-2019-0501.

(2) For more information about this AD, contact Dan Rodina, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3225.

(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 A300-600 Airworthiness Limitations Section (ALS), Part 2, “Damage Tolerant Airworthiness Limitation Items (DT-ALI),” Revision 03, dated December 14, 2018.

(ii) [Reserved]

(3) For service information identified in this AD, contact Airbus SAS, Airworthiness Office–EAW, 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; 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, email fedreg.legal@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Des Moines, Washington, on October 18, 2019.
Michael Kaszycki,
Acting Director, System Oversight Division,
Aircraft Certification Service.

2019-21-02 Airbus SAS: Amendment 39-19768; Docket No. FAA-2019-0523 Product Identifier 2019-NM-050-AD.

(a) Effective Date

This AD is effective November 29, 2019.

(b) Affected ADs

This AD affects AD 2016-26-05, Amendment 39-18763 (82 FR 1170, January 5, 2017) ("AD 2016-26-05").

(c) Applicability

This AD applies to Airbus SAS Model A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes, certificated in any category, with an original certificate of airworthiness or original export certificate of airworthiness issued on or before October 15, 2018.

(d) Subject

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

(e) Reason

This AD was prompted by a determination that new or more restrictive airworthiness limitations are necessary. The FAA is issuing this AD to address a safety-significant latent failure (that is not annunciated) that, in combination with one or more other specific failures or events, could result in a hazardous or catastrophic failure condition.

(f) Compliance

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

(g) Maintenance or Inspection Program Revision

Within 90 days after the effective date of this AD, revise the existing maintenance or inspection program, as applicable, to incorporate the information specified in Airbus A330 Airworthiness Limitations Section (ALS) Part 3–Certification Maintenance Requirements (CMR), Revision 06, dated October 15, 2018, as supplemented by Airbus A330 ALS Part 3–Certification Maintenance Requirements (CMR), Variation 6.1, dated June 28, 2019. The initial compliance times for doing the tasks is at the time specified in Airbus A330 Airworthiness Limitations Section (ALS) Part 3–Certification Maintenance Requirements (CMR), Revision 06, dated October 15, 2018, as supplemented by Airbus A330 ALS Part 3–

Certification Maintenance Requirements (CMR), Variation 6.1, dated June 28, 2019, or within 90 days after the effective date of this AD, whichever occurs later.

(h) No Alternative Actions or Intervals

After the existing 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 2016-26-05

Accomplishing the actions required by this AD terminates all requirements of AD 2016-26-05.

(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 Union 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) AD 2019-0049, dated March 11, 2019, 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-2019-0523.

(2) For more information about this AD, contact Vladimir Ulyanov, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3229.

(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 A330 Airworthiness Limitations Section (ALS) Part 3–
Certification Maintenance Requirements (CMR), Revision 06, dated October 15, 2018.

(ii) Airbus A330 ALS Part 3–Certification Maintenance Requirements (CMR), Variation 6.1, dated June 28, 2019.

(3) For service information identified in this AD, contact Airbus SAS, Airworthiness Office–EAW, 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; 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, email fedreg.legal@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Des Moines, Washington, on October 18, 2019.
Michael Kaszycki,
Acting Director, System Oversight Division,
Aircraft Certification Service.

FAA
Aviation Safety

EMERGENCY AIRWORTHINESS DIRECTIVE

www.faa.gov/aircraft/safety/alerts/

DATE: October 23, 2019
AD #: 2019-21-51

Emergency Airworthiness Directive (AD) 2019-21-51 is sent to owners and operators of General Electric Company (GE) Model GE90-115B model turbofan engines with certain engine serial numbers.

- **Background**

This emergency AD was prompted by an event that occurred on October 20, 2019, in which a Boeing Model 777-300ER airplane powered by GE GE90-115B model turbofan engines experienced an uncontained high-pressure turbine (HPT) failure that resulted in an aborted takeoff. Debris impacted the aircraft fuselage and the other engine. Uncontained HPT failure, if not addressed, could result in release of high-energy debris, damage to the engine, damage to the airplane, and possible loss of the airplane.

- **Relevant Service Information**

The FAA reviewed GE Alert Service Bulletin GE90-100 S/B 72-A0826, dated October 23, 2019. The service information describes the removal of the Interstage Seal from affected GE GE90-115B model turbofan engines.

- **FAA's Determination**

The FAA is issuing this AD because the Agency evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design. Due to the need to correct an urgent safety of flight situation, good cause exists to make this AD effective in less than 30 days.

- **AD Requirements**

This AD requires the removal from service of the GE GE90-115B model turbofan engine Interstage Seal, part number 2505M72P01, from the affected engines.

- **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to engines, propellers, and associated appliances to the Manager, Engine and Propeller Standards Branch, Policy and Innovation Division.

- **Presentation of the Actual AD**

The FAA is issuing this AD under 49 U.S.C. Section 44701 according to the authority delegated to me by the Administrator.

2019-21-51 General Electric Company: Product Identifier 2019-NE-32-AD.

- **(a) Effective Date**

This Emergency AD is effective upon receipt.

- **(b) Affected ADs**

None.

- **(c) Applicability**

This AD applies to all General Electric Company (GE) GE90-115B model turbofan engines with engine serial numbers 907451, 907464, 907504, 907564, 907574, 907599, 907601, and 907618.

- **(d) Subject**

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

- **(e) Unsafe Condition**

This AD was prompted by a recent event involving an uncontained high-pressure turbine (HPT) failure, resulting in debris penetrating the fuselage and the other engine. The FAA is issuing this AD to prevent failure of the HPT. The unsafe condition, if not addressed, could result in uncontained HPT failure, release of high-energy debris, damage to the engine, damage to the airplane, and possible loss of the airplane.

- **(f) Compliance**

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

- **(g) Required Action**

Within 25 flight cycles after the effective date of this AD, remove from service the Interstage Seal, part number 2505M72P01 with serial numbers GWN0TCL3, NCE062LD, NCE254LC, NCE314KU, NCE374LB, NCE527KT, NCE777LD, or NCE994KW.

Note to paragraph (g): GE Alert Service Bulletin GE90-100 S/B 72-A0826, dated October 23, 2019, contains guidance for replacing the Interstage Seal.

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

(1) The Manager, ECO 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 (i)(1) of this AD. You may email your request to ANE-AD-AMOC@faa.gov.

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

- **(i) Related Information**

(1) For further information about this AD, contact Herman Mak, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7147; fax: 781-238-7199; E-mail: herman.mak@faa.gov.

(2) For service information identified in this AD, contact General Electric Company, GE Aviation, 1 Neumann Way, Cincinnati, OH 45125; phone: 877-432-3272; fax: 877-432-3329; email: aviation.fleetsupport@ge.com. You may view this referenced service information at the FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA 01803.

Issued in Burlington, Massachusetts, on October 23, 2019.

Karen M. Grant, Acting Manager,
Engine and Propeller Standards Branch,
Aircraft Certification Service.