

**FEDERAL AVIATION ADMINISTRATION  
AIRWORTHINESS DIRECTIVES**

**LARGE AIRCRAFT**

**BIWEEKLY 2019-11**

*5/13/2019 - 5/26/2019*



Federal Aviation Administration  
Continued Operational Safety Policy Section, AIR-141  
P.O. Box 25082  
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			
<b>Biweekly 2019-01</b>			
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
<b>Biweekly 2019-02</b>			
2019-01-01		The Boeing Company	787-8 airplanes
<b>Biweekly 2019-03</b>			
2019-01-01	COR	The Boeing Company	787-8 airplanes
<b>Biweekly 2019-04</b>			
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
<b>Biweekly 2019-05</b>			
2018-21-14		Zodiac Aerotechnics	MC10 series crew oxygen mask regulators
2018-26-07		Airbus SAS	A350-941 and -1041 airplanes
2018-26-08		Airbus SAS	Note: Was missing from BW2019-01 A320-214, A320-232, A320-233, A321-211, and A321-231 airplanes
2019-03-03	A 2016-17-03	Airbus SAS	Note: Was missing from BW2019-01 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
2019-03-09		Airbus SAS	A310-304, -322, -324, and -325 airplanes

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AD No.	Information	Manufacturer	Applicability
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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	Dassault Aviation	FALCON 7X airplanes
2019-03-21	A 2016-16-09		
		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
<b>Biweekly 2019-06</b>			
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	Fokker Services B.V.	F.27 Mark 100, 200, 300, 400, 500, 600, and 700 airplanes
2019-03-18	A 97-04-08		
		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
<b>Biweekly 2019-07</b>			
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)
<b>Biweekly 2019-08</b>			
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
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

## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
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### 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



**2019-08-03 The Boeing Company:** Amendment 39-19624; Docket No. FAA-2018-0901; Product Identifier 2018-NM-114-AD.

**(a) Effective Date**

This AD is effective June 17, 2019.

**(b) Affected ADs**

None.

**(c) Applicability**

(1) This AD applies to The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 737-53A1361, dated July 17, 2018.

(2) Installation of Supplemental Type Certificate (STC) ST01219SE does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01219SE is installed, a “change in product” alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

**(d) Subject**

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

**(e) Unsafe Condition**

This AD was prompted by reports that frame web and frame integral inboard chord cracking is occurring on multiple airplanes in multiple locations below the passenger floor. We are issuing this AD to address frame cracking, which could result in the failure of multiple frames or the combination of a severed frame and cracks in fuselage chem-milled pockets in this area, which could lead to uncontrolled decompression of the airplane.

**(f) Compliance**

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

**(g) Required Actions**

(1) For airplanes identified as Group 1 in Boeing Alert Service Bulletin 737-53A1361, dated July 17, 2018: Within 120 days after the effective date of this AD, inspect the airplane and do all applicable on-condition actions using a method approved in accordance with the procedures specified in paragraph (i) of this AD.

(2) For airplanes identified as Groups 2 through 6 in Boeing Alert Service Bulletin 737-53A1361, dated July 17, 2018: Except as required by paragraph (h) of this AD, at the applicable times specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1361, dated July 17, 2018, do all applicable actions identified as “RC” (required for compliance) in, and in accordance with, the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1361, dated July 17, 2018.

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

(1) For purposes of determining compliance with the requirements of this AD: Where Boeing Alert Service Bulletin 737-53A1361, dated July 17, 2018, uses the phrase “the original issue date of this service bulletin,” this AD requires using “the effective date of this AD,” except where Boeing Alert Service Bulletin 737-53A1361, dated July 17, 2018, uses the phrase “the original issue date of this service bulletin” in a note or flag note.

(2) Where Boeing Alert Service Bulletin 737-53A1361, dated July 17, 2018, specifies contacting Boeing for repair instructions or contacting Boeing for alternative inspections: This AD requires doing the repair, or the alternative inspections and applicable on-condition actions, 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, Los Angeles 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-LAACO-AMOC-Requests@faa.gov.

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

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Los Angeles ACO 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.

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

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

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

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

For more information about this AD, contact George Garrido, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5232; fax: 562-627-5210; email: george.garrido@faa.gov.

**(k) Material Incorporated by Reference**

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

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

(i) Boeing Alert Service Bulletin 737-53A1361, dated July 17, 2018.

(ii) [Reserved]

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

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

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

Issued in Des Moines, Washington, on May 1, 2019.

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



**2019-08-07 Airbus SAS:** Amendment 39-19628; Docket No. FAA-2018-0795; Product Identifier 2018-NM-076-AD.

**(a) Effective Date**

This AD is effective June 26, 2019.

**(b) Affected ADs**

This AD replaces AD 2014-20-04, Amendment 39-17977 (79 FR 59636, October 3, 2014) (“AD 2014-20-04”).

**(c) Applicability**

This AD applies to the Airbus SAS airplanes specified in paragraphs (c)(1), (c)(2), (c)(3), and (c)(4) of this AD, certificated in any category, all manufacturer serial numbers.

- (1) Model A318-111, -112, -121, and -122 airplanes.
- (2) Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes.
- (3) Model A320-211, -212, -214, -216, -231, -232, and -233 airplanes.
- (4) Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes.

**(d) Subject**

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

**(e) Reason**

This AD was prompted by reports of cracks at the lower riveting of the four titanium angles that connect the belly fairing to the keel beam side panels on both sides of the fuselage. We are issuing this AD to address cracking of the titanium angles that connect the belly fairing to the keel beam side panels on both sides of the fuselage, which could affect the structural integrity of the airplane.

**(f) Compliance**

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

**(g) Retained Modification, With No Changes**

This paragraph restates the requirements of paragraph (g) of AD 2014-20-04, with no changes. For Model A320-211 and -231 series airplanes, manufacturer serial numbers 003 through 092 inclusive: Prior to the accumulation of 12,000 total landings on the airplane, or within 300 days after January 10, 1994 (the effective date of AD 93-24-11, Amendment 39-8760 (58 FR 64875, December 10, 1993)), whichever occurs later, modify the belly fairing structure, in accordance with the Accomplishment Instructions of an Airbus service bulletin specified in paragraph (g)(1), (g)(2), or

(g)(3) of this AD. As of November 7, 2014 (the effective date of AD 2014-20-04), use only the Airbus service bulletin specified in paragraph (g)(3) of this AD.

- (1) Airbus Industrie Service Bulletin A320-53-1014, dated June 25, 1992.
- (2) Airbus Industrie Service Bulletin A320-53-1014, Revision 1, dated May 26, 1993.
- (3) Airbus Service Bulletin A320-53-1014, Revision 2, dated September 1, 1994.

**(h) Retained Repetitive Inspection, With Updated Service Information**

This paragraph restates the requirements of paragraph (h) of AD 2014-20-04, with updated service information. At the latest of the compliance times specified in paragraphs (h)(1), (h)(2), and (h)(3) of this AD: Do a detailed inspection for cracking of the four titanium angles between the belly fairing and the keel beam side panel, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-53-1259, dated November 6, 2012; Airbus Service Bulletin A320-53-1259, Revision 01, dated November 26, 2013; Airbus Service Bulletin A320-53-1259, Revision 02, dated March 24, 2016; or Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017. After the effective date of this AD, only Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, may be used. Where Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, specifies to refer to Figure A GCAAA–Sheet 02, instead use Airbus Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018.

(1) Before the accumulation of 30,000 total flight cycles or 60,000 total flight hours, whichever occurs first after first flight of the airplane.

(2) Within 30,000 flight cycles or 60,000 flight hours, whichever occurs first after modification of the airplane as required by paragraph (g) of this AD, or after installation of new titanium angles, provided that, prior to installation, a rototest for cracking on the open holes has been accomplished with no crack findings, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-53-1259, dated November 6, 2012; Airbus Service Bulletin A320-53-1259, Revision 01, dated November 26, 2013; Airbus Service Bulletin A320-53-1259, Revision 02, dated March 24, 2016; or Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017. After the effective date of this AD, only Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, may be used. Where Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, specifies to refer to Figure A GCAAA–Sheet 02, instead use Airbus Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018.

(3) Within 3,000 flight cycles or 6,000 flight hours, whichever occurs first after November 7, 2014 (the effective date of AD 2014-20-04).

**(i) Retained Post-Inspection Actions for No Crack Findings, With Updated Service Information**

This paragraph restates the requirements of paragraph (i) of AD 2014-20-04, with updated service information. If, during any inspection required by paragraph (h) of this AD, there is no crack finding: Accomplish the actions specified in either paragraph (i)(1) or (i)(2) of this AD.

(1) Repeat the inspection required by paragraph (h) of this AD at intervals not to exceed 5,000 flight cycles or 10,000 flight hours, whichever occurs first.

(2) Before further flight after the inspection required by paragraph (h) of this AD, remove all inspected titanium angles, accomplish a rototest for cracking on the open holes and, provided no cracks are found, install new titanium angles, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-53-1259, dated November 6, 2012; Airbus Service Bulletin A320-53-1259, Revision 01, dated November 26, 2013; or Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017. After the effective date of this AD, only Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, may be used. Where Airbus Service Bulletin

A320-53-1259, Revision 03, dated November 30, 2017, specifies to refer to Figure A GCAA-Sheet 02, instead use Airbus Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018.

**(j) Retained Post-Inspection Actions for Any Crack Findings, With Updated Service Information**

This paragraph restates the requirements of paragraph (j) of AD 2014-20-04, with updated service information. If, during any inspection required by paragraph (h) of this AD, there is any crack finding: Before further flight, remove the affected titanium angle(s), accomplish a rototest for cracking on the open holes, and, provided no cracks are found, install new titanium angles, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-53-1259, dated November 6, 2012; Airbus Service Bulletin A320-53-1259, Revision 01, dated November 26, 2013; or Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017. After the effective date of this AD, only Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, may be used. Where Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, specifies to refer to Figure A GCAA-Sheet 02, instead use Airbus Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018.

**(k) Retained Post-Installation Repetitive Inspections, With Updated Service Information and Revised Compliance Language**

This paragraph restates the requirements of paragraph (k) of AD 2014-20-04, with updated service information and revised compliance language. For airplanes on which new titanium angles were installed as specified in paragraph (i)(2) or (j) of this AD: Within 30,000 flight cycles or 60,000 flight hours, whichever occurs first after the installation, accomplish a detailed inspection for cracking of the replaced titanium angles between the belly fairing and the keel beam side panel, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-53-1259, dated November 6, 2012; Airbus Service Bulletin A320-53-1259, Revision 01, dated November 26, 2013; Airbus Service Bulletin A320-53-1259, Revision 02, dated March 24, 2016; or Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017. After the effective date of this AD, only Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, may be used. Repeat the inspection thereafter at intervals not to exceed 5,000 flight cycles or 10,000 flight hours, whichever occurs first. Where Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, specifies to refer to Figure A GCAA-Sheet 02, instead use Airbus Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018.

**(l) Retained Post-Inspection Actions for Any Crack Findings During Post-Installation Inspections, With Updated Service Information**

This paragraph restates the requirements of paragraph (l) of AD 2014-20-04, with updated service information. If, during any inspection as required by paragraph (k) of this AD, there is any crack finding: Before further flight, remove the affected titanium angles, accomplish a rototest for cracking on the open holes, and, provided no cracks are found, install new titanium angles, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-53-1259, dated November 6, 2012; Airbus Service Bulletin A320-53-1259, Revision 01, dated November 26, 2013; or Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017. After the effective date of this AD, only Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, may be used. Where Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, specifies to refer to Figure A GCAA-Sheet 02, instead use Airbus Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018.

### **(m) Retained Corrective Action for Rototest Crack Finding, With Updated Contact Information**

This paragraph restates the requirements of paragraph (m) of AD 2014-20-04, with updated contact information. If, during any rototest as required by paragraph (i), (j), or (l) of this AD, any crack is found: Before further flight, repair using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

### **(n) Retained No Termination Action for Repetitive Inspections, With No Changes**

This paragraph restates the requirements of paragraph (n) of AD 2014-20-04, with no changes. Repair or replacement of parts as specified in this AD does not terminate the repetitive inspections required by this AD.

### **(o) New Requirement of This AD: Detailed Inspection for Certain Rivets**

For airplanes previously modified (replacement of affected titanium angles) using the Accomplishment Instructions of Revision 02 of Airbus Service Bulletin A320-53-1259: At the earlier of the times specified in paragraphs (o)(1) and (o)(2) of this AD, do a detailed inspection of the rivet installation in the belly fairing shear walls and the titanium angles for part number EN6081D4 series rivets in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017. A review of the airplane maintenance records is acceptable to comply with the requirements of this paragraph for that airplane, provided it can be determined that no titanium angles have been installed on that airplane in accordance with the Accomplishment Instructions of Revision 02 of Airbus Service Bulletin A320-53-1259, or if only rivets having part number EN6081D5 have been used to install the titanium angles on that airplane in accordance with the Accomplishment Instructions of Revision 02 of Airbus Service Bulletin A320-53-1259. Where Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, specifies to refer to Figure A GCAA-Sheet 02, instead use Airbus Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018.

(1) Within 2,000 flight cycles or 4,000 flight hours, whichever occurs first after the effective date of this AD.

(2) Before exceeding 5,000 flight cycles or 10,000 flight hours, whichever occurs first after accomplishment of the last inspection specified in paragraph (h) of this AD.

### **(p) New Requirements of This AD: Replacement of Certain Rivets**

If any part number EN6081D4 series rivet is found during any inspection required by paragraph (o) of this AD, before further flight, do the actions specified in paragraphs (p)(1) and (p)(2) of this AD.

(1) Remove the part number EN6081D4 series rivets and do a rotating probe test of the open holes for cracks, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017. If any crack is found during any inspection required by this paragraph, before further flight, obtain corrective actions approved by the Manager, International Section, Transport Standards Branch, FAA; or EASA; or Airbus SAS's EASA DOA; and accomplish the corrective actions within the compliance time specified therein. If approved by the DOA, the approval must include the DOA-authorized signature.

(2) Replace part number EN6081D4 series rivets with part number EN6081D5 series rivets in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017. Where Airbus Service Bulletin A320-53-1259, Revision 03,

dated November 30, 2017, specifies to refer to Figure A GCAAA–Sheet 02, instead use Airbus Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018.

**(q) Service Information Exception**

Where the Accomplishment Instructions of Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017, specify to install titanium angle part numbers D5337060121200 and D5337060121400, this AD allows the installation of titanium angle part numbers D5337060121295 and D5337060121495, respectively.

**(r) Other FAA AD Provisions**

(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 (s)(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 2014-20-04, are approved as AMOCs for the corresponding provisions of this AD.

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

(3) Required for Compliance (RC): If any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

**(s) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2018-0091, dated April 20, 2018, for related information. This MCAI may be found in the AD docket on the internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0795.

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

**(t) 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 June 26, 2019.

(i) Airbus Service Bulletin A320-53-1259, Revision 03, dated November 30, 2017.

(ii) Airbus Technical Adaptation 80491184/005/2018, Issue 1, dated February 08, 2018. The date appears only on the last page of the document.

(4) The following service information was approved for IBR on November 7, 2014 (79 FR 59636, October 3, 2014).

(i) Airbus Service Bulletin A320-53-1014, Revision 2, dated September 1, 1994, including supplementary page 7A. Pages 1 through 3, 15, 19, 20, and 25 of this document are identified as Revision 2, dated September 1, 1994; pages 4 through 8, 10, 12, 16 through 18, and 21 through 24 are identified as Revision 1, dated May 26, 1993; and pages 9, 11, 13, 14, and 26 are identified as the original, dated June 25, 1992.

(ii) [Reserved]

(5) For service information identified in this AD, contact Airbus SAS, Airworthiness Office–EIAS, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; phone: +33 5 61 93 36 96; fax: +33 5 61 93 44 51; email: [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); internet: <http://www.airbus.com>.

(6) 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.

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

Issued in Des Moines, Washington, on April 10, 2019.

Dionne Palermo,

Acting Director, System Oversight Division, Aircraft Certification Service.

[FR Doc. 2019-10653 Filed 5-21-19; 8:45 am]



**2019-08-08 Bombardier, Inc.:** Amendment 39-19629; Docket No. FAA-2018-0790; Product Identifier 2018-NM-078-AD.

**(a) Effective Date**

This AD is effective June 27, 2019.

**(b) Affected ADs**

This AD replaces AD 2010-14-05, Amendment 39-16350 (75 FR 37994, July 1, 2010) (“AD 2010-14-05”).

**(c) Applicability**

This AD applies to the Bombardier, Inc., airplanes, certificated in any category, identified in paragraphs (c)(1) through (c)(5) of this AD.

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

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

(3) Model CL-600-2B16 airplanes (601-3A Variant), serial numbers 5001 through 5134 inclusive.

(4) Model CL-600-2B16 airplanes (601-3R Variant), serial numbers 5135 through 5194 inclusive.

(5) Model CL-600-2B16 airplanes (604 Variant), serial numbers 5301 through 5665 inclusive and 5701 through 5988 inclusive.

Note 1 to paragraph (c) of this AD: Certain Model CL-600-2B16 (604 Variant) airplanes might be referred to by the marketing designation CL-605.

**(d) Subject**

Air Transport Association (ATA) of America Code 29, Hydraulic power.

**(e) Reason**

This AD was prompted by reports of on-ground hydraulic accumulator screw cap or end cap failure that resulted in the loss of the associated hydraulic system and high-energy impact damage to adjacent systems and structure. We are issuing this AD to address failure of one of the brake accumulator screw caps/end caps, which could result in impact damage causing loss of both hydraulic systems No. 2 and No. 3, and the consequent loss of both braking and nose wheel steering, the potential for a runway excursion, and damage to the airplane.

**(f) Compliance**

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

**(g) Retained Part Number Inspection and Accumulator Replacement, With Revised Formatting, Service Information, and Affected Part Numbers**

This paragraph restates the requirements of paragraph (g) of AD 2010-14-05, with revised formatting, service information, and affected part numbers. Do the following actions as applicable.

(1) Within 50 flight hours after August 5, 2010 (the effective date of AD 2010-14-05), inspect to determine the part numbers of the system accumulators numbers 1, 2, and 3, and brake accumulators numbers 2 and 3 that are installed on the airplane. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number of each accumulator can be conclusively determined from that review. If all of the installed accumulators have part number (P/N) 2770571-102, 2770571-103, 2770571-104, 2770571-105, 601R75139-3 (11094-4), or 601R75139-1 (11093-4), no further action is required by paragraph (g) of this AD.

(2) Except as provided in paragraph (g)(1) of this AD: At the applicable time in paragraph (g)(2)(i), (g)(2)(ii), or (g)(2)(iii) of this AD, replace the accumulator with a new, overhauled, or refurbished accumulator with the same part number, in accordance with the Accomplishment Instructions of the applicable service bulletin listed in figure 1 to paragraphs (g)(2) and (g)(3) of this AD.

(i) For each accumulator having P/Ns 08-60163-002 (601R75138-1), and 08-60164-002 (601R75138-3), as applicable, that has accumulated more than 3,650 total flight cycles as of August 5, 2010 (the effective date of AD 2010-14-05): Replace the accumulator within 100 flight cycles after August 5, 2010.

(ii) For each accumulator having P/N 08-60163-002 (601R75138-1), and 08-60164-002 (601R75138-3), as applicable, that has accumulated 3,650 total flight cycles or fewer as of August 5, 2010: Replace the accumulator before the accumulation of 3,750 total flight cycles on the accumulator.

(iii) For each accumulator having P/N 08-60163-002 (601R75138-1), and 08-60164-002 (601R75138-3), as applicable, for which it is not possible to determine the number of flight cycles accumulated: Replace the accumulator within 100 flight cycles after August 5, 2010.

**Figure 1 to paragraphs (g)(2) and (g)(3) of this AD –  
Service bulletins for accumulator replacement**

<b>Airplane Model –</b>	<b>Bombardier Service Bulletin –</b>	<b>Revision –</b>	<b>Dated –</b>
CL-600-1A11 (600)	600-0742	04	June 11, 2015
CL-600-2A12 (601)			
CL-600-2B16 (601-3A and 601-3R Variants)	601-0597	04	June 11, 2015
CL-600-2B16 (604 Variant)	604-29-008	04	June 11, 2015
CL-600-2B16 (605*)	605-29-001	04	June 10, 2015

\*Model CL-600-2B16 (604 Variant), referred to by the marketing designation CL-605.

(3) Thereafter, before the accumulation of 3,750 total flight cycles on any accumulator having P/Ns 08-60163-002 (601R75138-1), and 08-60164-002 (601R75138-3), as applicable, replace the accumulator with a new, overhauled, or refurbished accumulator having the same part number, in accordance with the Accomplishment Instructions of the applicable service bulletin listed in figure 1 to paragraphs (g)(2) and (g)(3) of this AD.

**(h) New Provision of This AD: Terminating Action for Certain Accumulators**

For each accumulator with one of the part number and serial number (S/N) suffixes listed in paragraphs (h)(1) through (h)(4) of this AD, the repetitive replacement specified in paragraphs (g)(2) and (g)(3) of this AD is not required.

- (1) P/N 08-60163-002 with S/N suffix TNAE.
- (2) P/N 08-60164-002 with S/N suffix TNAE.
- (3) P/N 601R75139-3 (11094-4).
- (4) P/N 601R75139-1 (11093-4).

**(i) New Requirement of This AD: Relocation of Accumulators**

Within 60 months or 2,400 flight cycles, whichever occurs first after the effective date of this AD, relocate the hydraulic system accumulators as specified in paragraphs (i)(1) through (i)(4) of this AD, as applicable. Relocation of the hydraulic system accumulators as required by this paragraph does not terminate any repetitive replacement required by paragraph (g)(2) or (g)(3) of this AD.

(1) For Model CL-600-1A11 (600) airplanes, S/Ns 1004 through 1085 inclusive: Relocate accumulators as specified in paragraphs (i)(1)(i) and (i)(1)(ii) of this AD.

(i) Relocate hydraulic system Nos. 1 and 2 accumulators, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 600-0764, dated October 8, 2015.

(ii) Relocate hydraulic system No. 3 accumulator, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 600-0767, dated August 25, 2016.

(2) For Model CL-600-2A12 (601) airplanes, S/Ns 3001 through 3066 inclusive, and Model CL-600-2B16 (601-3A and 601-3R Variants) airplanes, S/Ns 5001 through 5194 inclusive: Relocate accumulators as specified in paragraphs (i)(2)(i) and (i)(2)(ii) of this AD.

(i) Relocate hydraulic system Nos. 1 and 2 accumulators, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 601-0633, dated October 8, 2015.

(ii) Relocate hydraulic system No. 3 accumulator, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 601-0637, dated August 25, 2016.

(3) For Model CL-600-2B16 (604 Variant) airplanes, S/Ns 5301 through 5665 inclusive: Relocate hydraulic system No. 3 accumulator, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 604-29-013, Revision 02, dated April 18, 2016.

(4) For Model CL-600-2B16 (605) airplanes, S/Ns 5701 through 5982 inclusive and subsequent (i.e., Model CL-600-2B16 (604 Variant), referred to by the marketing designation CL-605): Relocate hydraulic system No. 3 accumulator, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 605-29-006, Revision 02, dated April 19, 2016.

**(j) New Requirement of This AD: Revision of Maintenance/Inspection Program**

Within 50 flight hours after the effective date of this AD, revise the maintenance or inspection program, as applicable, to incorporate the tasks specified in figure 2 to paragraph (j) of this AD.

**Figure 2 to paragraph (j) of this AD: Time Limits/Maintenance Checks (TLMC) tasks**

<b>Airplane model</b>	<b>TLMC manual number</b>	<b>Section</b>	<b>Part number/task number</b>
CL-600-1A11 (600)	Bombardier Challenger 600 Time Limits/Maintenance Checks, PSP 605, Revision 39, dated January 8, 2018	5-10-20, Time Limits (Systems)	601R75138-1 (08-60163-002) with “TNAE” after the S/N
			601R75138-3 (08-60164-002) with “TNAE” after the S/N
CL-600-2A12 (601)	Bombardier Challenger 601 Time Limits/Maintenance Checks, PSP 601-5, Revision 46, dated January 8, 2018	5-10-20, Time Limits (Systems)	601R75138-1 (08-60163-002) with “TNAE” after the S/N
			601R75138-3 (08-60164-002) with “TNAE” after the S/N

<b>Airplane model</b>	<b>TLMC manual number</b>	<b>Section</b>	<b>Part number/task number</b>
CL-600-2B16 (601-3A and 601-3R Variants)	Bombardier Challenger 601 Time Limits/Maintenance Checks, PSP 601A-5, Revision 42, dated January 8, 2018	5-10-20, Time Limits (Systems)	601R75138-1 (08-60163-002) with “TNAE” after the S/N
			601R75138-3 (08-60164-002) with “TNAE” after the S/N
CL-600-2B16 (604 Variant)	Bombardier Challenger CL-604 Time Limits/Maintenance Checks, Part 2, Airworthiness Limitations, Revision 31, dated November 19, 2018	5-10-11, Life Limits (Systems)	29-10-00-101
			29-10-00-102
CL-600-2B16 (605*)	Bombardier Challenger CL-605 Time Limits/Maintenance Checks, Part 2, Airworthiness Limitations, Revision 20, dated November 19, 2018	5-10-11, Life Limits (Systems)	29-10-00-101
			29-10-00-102

\*Model CL-600-2B16 (604 Variant), referred to by the marketing designation CL-605.

### **(k) No Alternative Actions or Intervals**

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

**(I) Credit for Previous Actions**

(1) Replacement of an accumulator with a new accumulator having the same part number is also acceptable for compliance with the requirements of paragraphs (g)(2) and (g)(3) of this AD, if done before August 5, 2010 (the effective date of AD 2010-14-05), in accordance with the applicable service bulletin listed in figure 3 to paragraph (I)(1) of this AD. This service information is not incorporated by reference in this AD.

**Figure 3 to paragraph (I)(1) of this AD – Previous service bulletins for AD 2010-14-05**

<b>Airplane Model –</b>	<b>Bombardier Service Bulletin –</b>	<b>Revision –</b>	<b>Dated –</b>
CL-600-1A11 (600)	600-0742	Basic	November 10, 2008
		01	July 6, 2009
CL-600-2A12 (601) CL-600-2B16 (601-3A and 601-3R Variants)	601-0597	Basic	November 10, 2008
		01	July 6, 2009
CL-600-2B16 (604 Variant)	604-29-008	Basic	November 10, 2008
		01	July 6, 2009
CL-600-2B16 (605*)	605-29-001	Basic	November 10, 2008
		01	July 6, 2009

\*Model CL-600-2B16 (604 Variant), referred to by the marketing designation CL-605.

(2) Replacement of an accumulator with a new accumulator having the same part number is also acceptable for compliance with the requirements of paragraphs (g)(2) and (g)(3) of this AD, if done before the effective date of this AD in accordance with the applicable service bulletin listed in figure 4 to paragraph (I)(2) of this AD.

**Figure 4 to paragraph (l)(2) of this AD – Previous service bulletins for this AD**

<b>Airplane Model –</b>	<b>Bombardier Service Bulletin –</b>	<b>Revision –</b>	<b>Dated –</b>
CL-600-1A11 (600)	600-0742	02**	May 10, 2010
		03*	April 10, 2012
CL-600-2A12 (601) CL-600-2B16 (601-3A and 601-3R Variants)	601-0597	02**	May 10, 2010
		03*	April 10, 2012
CL-600-2B16 (604 Variant)	604-29-008	02**	May 10, 2010
		03*	April 10, 2012
CL-600-2B16 (605***)	605-29-001	02**	May 10, 2010
		03*	April 10, 2012

\*This service information is not incorporated by reference in this AD.

\*\*This service information was incorporated by reference in AD 2010-14-05.

\*\*\*Model CL-600-2B16 (604 Variant), referred to by the marketing designation CL-605.

(3) This paragraph provides credit for actions required by paragraph (i)(3) of this AD, if those actions were performed before the effective date of this AD, in accordance with Bombardier Service Bulletin 604-29-013, dated April 30, 2015; or Bombardier Service Bulletin 604-29-013, Revision 01, dated October 19, 2015. This service information is not incorporated by reference in this AD.

(4) This paragraph provides credit for actions required by paragraph (i)(4) of this AD, if those actions were performed before the effective date of this AD, in accordance with Bombardier Service Bulletin 605-29-006, dated April 30, 2015; or Bombardier Service Bulletin 605-29-006, Revision 01, dated October 19, 2015. This service information is not incorporated by reference in this AD.

(5) For Model CL-600-2B16 (604 Variant) airplanes: This paragraph provides credit for the actions required by paragraph (j) of this AD, if those actions were performed before the effective date of this AD using Section 5-10-11, Life Limits (Systems), of the Bombardier Challenger CL-604 Time Limits/Maintenance Checks, Part 2, Airworthiness Limitations, Revision 30, dated December 4, 2017. This service information is not incorporated by reference in this AD.

(6) For Model CL-600-2B16 (605) airplanes: This paragraph provides credit for the actions required by paragraph (j) of this AD for, if those actions were performed before the effective date of this AD using Section 5-10-11, Life Limits (Systems), of the Bombardier Challenger CL-605 Time Limits/Maintenance Checks, Part 2, Airworthiness Limitations, Revision 18, dated December 4, 2017; or Revision 19, dated May 29, 2018. This service information is not incorporated by reference in this AD.

### **(m) Special Flight Permit**

Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the airplane can be modified, provided the following conditions are met:

(1) An engineering recommendation must be obtained via the Bombardier process Service Request for Product Support Action (SRPSA) at SRPSA@aero.bombardier.com.

(2) Approval of the special flight permit must be obtained from the Flight Standards District Office.

**(n) 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.

(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) AMOC 15-76R1 and AMOC 15-53, approved previously for AD 2010-14-05, are approved as AMOCs for the corresponding provisions of paragraph (g)(2) 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, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier's TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

**(o) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2009-39R1, dated October 13, 2017, for related information. This MCAI may be found in the AD docket on the internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0790.

(2) For more information about this AD, contact Darren Gassetto, Aerospace Engineer, Mechanical Systems & Administrative Services, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7323; 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 (p)(5) and (p)(6) of this AD.

**(p) Material Incorporated by Reference**

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

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

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

(i) Bombardier Service Bulletin 600-0742, Revision 04, dated June 11, 2015.

(ii) Bombardier Service Bulletin 600-0764, dated October 8, 2015.

(iii) Bombardier Service Bulletin 600-0767, dated August 25, 2016.

(iv) Bombardier Service Bulletin 601-0597, Revision 04, dated June 11, 2015.

(v) Bombardier Service Bulletin 601-0633, dated October 8, 2015.

(vi) Bombardier Service Bulletin 601-0637, dated August 25, 2016.

(vii) Bombardier Service Bulletin 604-29-008, Revision 04, dated June 11, 2015.

(viii) Bombardier Service Bulletin 604-29-013, Revision 02, dated April 18, 2016.

(ix) Bombardier Service Bulletin 605-29-001, Revision 04, dated June 10, 2015.

(x) Bombardier Service Bulletin 605-29-006, Revision 02, dated April 19, 2016.

(xi) Section 5-10-11, Life Limits (Systems), of the Bombardier Challenger CL-604 Time Limits/Maintenance Checks, Part 2, Airworthiness Limitations, Revision 31, dated November 19, 2018.

(xii) Section 5-10-11, Life Limits (Systems), of the Bombardier Challenger CL-605 Time Limits/Maintenance Checks, Part 2, Airworthiness Limitations, Revision 20, dated November 19, 2018.

(xiii) Section 5-10-20, Time Limits (Systems), of the Bombardier Challenger 600 Time Limits/Maintenance Checks, PSP 605, Revision 39, dated January 8, 2018.

(xiv) Section 5-10-20, Time Limits (Systems), of the Bombardier Challenger 601 Time Limits/Maintenance Checks, PSP 601-5, Revision 46, dated January 8, 2018.

(xv) Section 5-10-20, Time Limits (Systems), of the Bombardier Challenger 601 Time Limits/Maintenance Checks, PSP 601A-5, Revision 42, dated January 8, 2018.

(4) For service information identified in this AD, contact Bombardier, Inc., 200 Côte-Vertu Road West, Dorval, Québec H4S 2A3, Canada; North America toll-free telephone 1-866-538-1247 or direct-dial telephone 1-514-855-2999; email [ac.yul@aero.bombardier.com](mailto:ac.yul@aero.bombardier.com); internet <http://www.bombardier.com>.

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

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

Issued in Des Moines, Washington, on April 25, 2019.

Dionne Palermo,  
Acting Director, System Oversight Division,  
Aircraft Certification Service.



**2019-09-01 The Boeing Company:** Amendment 39-19635; Docket No. FAA-2018-0961; Product Identifier 2018-NM-121-AD.

**(a) Effective Date**

This AD is effective June 26, 2019.

**(b) Affected ADs**

None.

**(c) Applicability**

(1) This AD applies to The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 737-30A1064, Revision 1, dated October 18, 2017.

(2) Installation of Supplemental Type Certificate (STC) ST01219SE does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01219SE is installed, a “change in product” alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

**(d) Subject**

Air Transport Association (ATA) of America Code 30, Ice and rain protection.

**(e) Unsafe Condition**

This AD was prompted by reports indicating that the pitot heat switch is not always set to ON, which could result in misleading air data. We are issuing this AD to address misleading air data, which can lead to loss of crew situational awareness and could ultimately result in the inability to maintain continued safe flight and landing.

**(f) Compliance**

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

**(g) Actions for Group 5 Airplanes**

For airplanes identified as Group 5 in Boeing Alert Service Bulletin 737-30A1064, Revision 1, dated October 18, 2017: Within 120 days after the effective date of this AD, inspect the airplane and do all applicable on-condition actions using a method approved in accordance with the procedures specified in paragraph (m) of this AD.

**(h) Required Actions for Groups 1 Through 4 Airplanes**

Except as specified by paragraph (j) of this AD, for airplanes identified as Groups 1 through 4 in Boeing Alert Service Bulletin 737-30A1064, Revision 1, dated October 18, 2017: At the applicable times specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-30A1064, Revision 1, dated October 18, 2017, do all applicable actions identified as “RC” (required for compliance) in, and in accordance with, the Accomplishment Instructions of Boeing Alert Service Bulletin 737-30A1064, Revision 1, dated October 18, 2017.

**(i) Concurrent Requirements**

For airplanes identified as Groups 1 through 4 in Boeing Alert Service Bulletin 737-30A1064, Revision 1, dated October 18, 2017: Prior to or concurrently with the action required by paragraph (h) of this AD, install a new J18 junction box to change the anti-icing system, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737-30-1067, Revision 1, dated May 4, 2017, and install wiring provisions to the anti-icing system, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737-30-1068, Revision 1, dated May 4, 2017.

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

For purposes of determining compliance with the requirements of this AD: Where Boeing Alert Service Bulletin 737-30A1064, Revision 1, dated October 18, 2017, uses the phrase “the original issue date of this service bulletin,” this AD requires using “the effective date of this AD.”

**(k) 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 Boeing Alert Service Bulletin 737-30A1064, dated May 4, 2017, provided that step 15 for Groups 1 through 4 airplanes, as applicable, of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-30A1064, Revision 1, dated October 18, 2017, is done at the applicable times specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-30A1064, Revision 1, dated October 18, 2017, or within 180 days after the effective date of this AD, whichever occurs later.

**(l) Minimum Equipment List (MEL)**

In the event that the air data probe heat (ADPH) system as modified by this AD is inoperable, an airplane may be operated as specified in the operator's MEL, provided the MEL includes provisions that address the modified ADPH system.

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

(1) The Manager, Los Angeles 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 (n)(2) of this AD. Information may be emailed to: 9-ANM-LAACO-AMOC-Requests@faa.gov.

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

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Los Angeles ACO 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.

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

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

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

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

(1) For more information about this AD, contact Frank Carreras, Aerospace Engineer, Systems and Equipment Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3539; email: frank.carreras@faa.gov.

(2) For information about AMOCs, contact Jeffrey W. Palmer, Aerospace Engineer, Systems and Equipment Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5851; fax: 562-627-5210; email: jeffrey.w.palmer@faa.gov.

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

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

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

(i) Boeing Alert Service Bulletin 737-30A1064, Revision 1, dated October 18, 2017.

(ii) Boeing Service Bulletin 737-30-1067, Revision 1, dated May 4, 2017.

(iii) Boeing Service Bulletin 737-30-1068, Revision 1, dated May 4, 2017.

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

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

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

Issued in Des Moines, Washington, on May 9, 2019.

Dionne Palermo,  
Acting Director, System Oversight Division,  
Aircraft Certification Service.