**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2018-0586; Product Identifier 2017-NM-151-AD; Amendment 39-19445; AD 2018-20-11]**

**RIN 2120-AA64**

**Airworthiness Directives;** Bombardier, Inc., Airplanes

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Bombardier, Inc., Model DHC-8-300 series airplanes. This AD was prompted by reports indicating that a certain emergency exit door could not be opened during maintenance. This AD requires a detailed inspection of the ball bearings of an emergency exit, replacement of bearings if necessary, application of corrosion inhibiting compound (CIC), and revision of the maintenance or inspection program, as applicable. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd.qseries@aero.bombardier.com; Internet http://www.bombardier.com. 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. It is also available on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2018-0586.

**Examining the AD Docket**

You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2018-0586; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments received, and other information. The address for Docket Operations (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Darren Gassetto, Aerospace Engineer, Airframe and Propulsion Section, 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.

**SUPPLEMENTARY INFORMATION:**

**Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Bombardier, Inc., Model DHC-8-300 series airplanes. The NPRM published in the Federal Register on July 6, 2018 (83 FR 31496). The NPRM was prompted by reports indicating that a certain emergency exit door could not be opened during maintenance. The NPRM proposed to require a detailed inspection of the ball bearings of an emergency exit, replacement of bearings if necessary, application of CIC, and revision of the maintenance or inspection program, as applicable.

We are issuing this AD to address corrosion of the emergency exit door ball bearings, which could result in the inability to open the emergency exit door during an emergency evacuation and consequently impede airplane egress.

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2017-30, dated August 30, 2017 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for certain Bombardier, Inc., Model DHC-8-300 series airplanes. The MCAI states:

> An operator has reported the inability to open the Forward Right Hand Type I emergency exit door with either the internal or external handle during maintenance. Investigation has determined that the handle was found to be jammed due to corroded center and lower shaft ball bearings. Condensation has been found to be the root cause of the Forward Right Hand Type I emergency exit door hardware corrosion. Other Forward Right Hand Type I emergency exit door ball bearings are also susceptible to corrosion. Inability to open the Forward Right Hand Type I emergency exit door during an emergency evacuation may impede aircraft egress.

> This [Canadian] AD mandates the inspection for corrosion and replacement, as required, of all Forward Right Hand Type I emergency exit door ball bearings, and the application of corrosion inhibiting compound (CIC), to ensure that the Forward Right Hand Type I emergency exit door can be opened when required.

You may examine the MCAI in the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2018-0586.

**Comments**

We gave the public the opportunity to participate in developing this final rule. We have considered the comment received. The Air Line Pilots Association, International (ALPA) indicated its support for the NPRM.

**Conclusion**

We reviewed the relevant data, considered the comment received, and determined that air safety and the public interest require adopting this final rule as proposed, except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

**Related Service Information under 1 CFR part 51**

Bombardier has issued the following service information:

- Service Bulletin 8-52-65, dated July 26, 2017, which describes procedures for a detailed inspection of the forward right-hand type I emergency exit door ball bearings for

corrosion, seal damage, and loss of lubricant; applying CIC; and replacing emergency exit door ball bearings if necessary.

- de Havilland Inc. Dash 8 Series 300 Maintenance Task Card Task Number 5220/12 ("Servicing of Forward RH Emergency Exit Mechanisms"), dated March 15, 2017, which describes procedures for servicing the forward right-hand emergency exit door mechanisms.

- Temporary Revision (TR) 54-042, dated April 10, 2018, to the DHC-8-300 Aircraft Maintenance Manual (AMM), which describes procedures for servicing the type I emergency exit door mechanisms.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

**Costs of Compliance**

We estimate that this AD affects 16 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

**Estimated costs for required actions**

| Labor cost | Parts cost | Cost per product | Cost on U.S. operators |
|---|---|---|---|
| 3 work-hours X $85 per hour = $255 | $0 | $255 | $4,080 |

We have determined that revising the maintenance or inspection program takes an average of 90 work-hours per operator, although we recognize that this number may vary from operator to operator. In the past, we have estimated that this action takes 1 work-hour per airplane. Since operators incorporate maintenance or inspection program changes for their affected fleet(s), we have determined that a per-operator estimate is

more accurate than a per-airplane estimate. Therefore, we estimate the total cost per operator to be $7,650 (90 work-hours x $85 per work-hour).

We estimate the following costs to do any necessary on-condition actions that would be required based on the results of any required actions. We have no way of determining the number of aircraft that might need these on-condition actions:

**Estimated costs of on-condition actions**

| Labor cost | Parts cost | Cost per product |
|---|---|---|
| 6 work-hours X $85 per hour = $510 | $586 | $1,096 |

**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.

We are 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 transport category airplanes and associated appliances to the Director of the System Oversight Division.

**Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

**List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

**Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

**PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2018-20-11 Bombardier, Inc.:** Amendment 39-19445; Docket No. FAA-2018-0586; Product Identifier 2017-NM-151-AD.

**(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Bombardier, Inc., Model DHC-8-301, -311, and -315 airplanes, certificated in any category, serial numbers 100 through 672 inclusive.

**(d) Subject**

Air Transport Association (ATA) of America Code 52, Doors.

**(e) Reason**

This AD was prompted by reports indicating that the forward right-hand type I emergency exit door could not be opened during maintenance. An investigation determined that the exit door handle was jammed due to corroded center and lower shaft ball bearings. We are issuing this AD to address corrosion of the emergency exit door ball bearings, which could result in the inability to open the emergency exit door during an emergency evacuation and consequently impede airplane egress.

**(f) Compliance**

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

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

Within 60 days after the effective date of this AD: Revise the maintenance or inspection program, as applicable, to incorporate de Havilland Inc. Dash 8 Series 300 Maintenance Task Card Task Number 5220/12 ("Servicing of Forward RH Emergency Exit Mechanisms"), dated March 15, 2017; and Temporary Revision 54-042, dated April 10, 2018, to the DHC-8-300 Aircraft Maintenance Manual (AMM). The initial compliance time for doing the task is at the time specified in de Havilland Inc. Dash 8 Series 300 Maintenance Task Card Task Number 5220/12 ("Servicing of Forward RH Emergency Exit Mechanisms"), dated March 15, 2017, or within 60 days after the effective date of this AD, whichever occurs later.

**(h) Inspection and Replacement**

Within 5,000 flight hours or 36 months, whichever occurs first, after the effective date of this AD: Do a detailed inspection of all ball bearings of the forward right-hand type I emergency exit for corrosion, seal damage, and loss of lubricant; replace bearings as applicable; and apply corrosion inhibiting compound (CIC); in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-52-65, dated July 26, 2017. Do all applicable replacements before further flight.

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

After the maintenance or inspection program has been revised as required by paragraph (g) of this AD, no alternative actions (e.g., inspections) or intervals may be

used unless the actions and intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (j)(1) of this AD.

**(j) Other FAA AD Provisions**

The following provisions also apply to this AD:

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

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

**(k) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2017-30, dated August 30, 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-2018-0586.

(2) For more information about this AD, contact Darren Gassetto, Aerospace Engineer, Airframe and Propulsion Section, 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.

**(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) Bombardier Service Bulletin 8-52-65, dated July 26, 2017.

(ii) de Havilland Inc. Dash 8 Series 300 Maintenance Task Card Task Number 5220/12 ("Servicing of Forward RH Emergency Exit Mechanisms"), dated March 15, 2017.

(iii) Temporary Revision (TR) 54-042, dated April 10, 2018, to the DHC-8-300 Aircraft Maintenance Manual (AMM).

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

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

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

Issued in Des Moines, Washington, on September 20, 2018.

John P. Piccola,
Acting Director,
System Oversight Division,
Aircraft Certification Service.

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