**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2018-0635; Product Identifier 2017-NM-183-AD]**

**RIN 2120-AA64**

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

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

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for certain Bombardier, Inc., Model DHC-8-102, -103, and -106 airplanes; Model DHC-8-200 series airplanes; and Model DHC-8-300 series airplanes. This proposed AD was prompted by a report that a certain modification to the auto relight system is incompatible with a certain beta lockout system modification and could result in de-activation of the auto ignition feature of the No. 2 engine. This proposed AD would require an inspection of the auto ignition system and applicable rectification. We are proposing this AD to address the unsafe condition on these products.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: 202-493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, 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.

**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-2018-0635; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Anthony Flores, Aerospace Engineer, Propulsion and Program Management Section, Chicago ACO Branch, Room 107, 2300 East Devon Avenue, Des Plaines, IL 60018; telephone 847-294-7140; fax 847-294-7834.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2018-0635; Product Identifier 2017-NM-183-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM based on those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

**Discussion**

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian AD CF-2017-21R1, dated June 28, 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-8-102, -103, and -106

airplanes; Model DHC-8-200 series airplanes; and Model DHC-8-300 series airplanes.

The MCAI states:

> During the incorporation of the Auto Relight modification per Bombardier SB [Service Bulletin] 8-74-02 on an aeroplane with a Beta Lockout System (BLS) installed, it was noticed that if SB 8-74-02 is incorporated in conjunction with, or after the incorporation of BLS SB 8-76-35 ([Canadian] AD CF-2013-15) or SB 8-76-24 (FAA AD 2000-02-13 [Amendment 39-11531 (65 FR 4095, January 26, 2000)]), the #2 engine auto ignition function of the beta lockout system will not be available when the beta lockout system is activated. This condition, if not corrected, may result in a #2 engine uncommanded in-flight shut down.
>
> To preclude any future occurrence of the noted deficiency, Bombardier has issued SB 8-74-02 Revision B to highlight its incompatibility with post SB 8-76-35 or 8-76-24 BLS compliant aeroplanes. In addition, Bombardier issued a new SB, 8-74-06 for Auto Relight System modification that can be incorporated in conjunction with or on those aeroplanes that were previously modified per SB 8-76-35 or 8-76-24.
>
> To address this potentially unsafe condition, Bombardier has also issued SB 8-74-07 to inspect and rectify the system wiring on affected aeroplanes.
>
> The original version of this [Canadian] AD was issued to mandate compliance with the SB 8-74-07 requirements.
>
> Revision 1 of this [Canadian] AD is issued to clarify the Applicability section and correct a typographic error in the SB number referenced in the Corrective Action section of the original [Canadian] AD.

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-2018-0635.

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

Bombardier, Inc., has issued Service Bulletin 8-74-07, dated April 13, 2016. The service information describes an inspection to determine correct operation of the auto ignition system for airplanes on which a beta lockout system was installed, and rectification to re-activate a previously disabled auto ignition system that will address inadvertent de-activation of the auto ignition feature. 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.

**FAA's Determination and Requirements of this Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

**Costs of Compliance**

We estimate that this proposed AD affects 185 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

**Estimated costs**

| Action | Labor cost | Parts cost | Cost per product | Cost on U.S. operators |
|---|---|---|---|---|
| Inspection | 1 work-hour X $85 per hour = $85 | None | $85 | $15,725 |

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

**On-condition costs**

| Action | Labor cost | Parts cost | Cost per product |
|---|---|---|---|
| Rectification | 3 work-hours X $85 per hour = $255 | $6 | $261 |

**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 proposed 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 to the Director of the System Oversight Division.

**Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 this proposed regulation:

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.

**The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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):

**Bombardier, Inc.:** Docket No. FAA-2018-0635; Product Identifier 2017-NM-183-AD.

**(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Bombardier, Inc., Model DHC-8-102, -103, -106, -201, -202, -301, -311, and -315 airplanes, certificated in any category, serial numbers 003 through 540 inclusive, on which Bombardier Service Bulletin 8-74-02, dated March 3, 2000; or Revision A, dated January 27, 2014; has been accomplished concurrently with or after accomplishment of Bombardier Service Bulletin 8-76-35 or 8-76-24.

**(d) Subject**

Air Transport Association (ATA) of America Code 74, Ignition; 76, Engine Controls.

**(e) Reason**

This AD was prompted by a report that a certain modification to the auto relight system is incompatible with a certain beta lockout system modification and could result in de-activation of the auto ignition feature of the No. 2 engine. We are issuing this AD to prevent unintentional de-activation of the auto ignition feature of the No. 2 engine when the beta lockout system is activated, which could result in an uncommanded in-flight shutdown of the No. 2 engine.

**(f) Compliance**

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

**(g) Inspection and Corrective Action**

Within 6000 flight hours or 36 months, whichever occurs first, after the effective date of this AD, inspect and, as applicable, rectify the auto ignition system in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-74-07, dated April 13, 2016.

**(h) Credit for Previous Actions**

This paragraph provides credit for rectification required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Bombardier In-Service Modification IS8Q7400001, Revision C, dated November 27, 2015.

**(i) 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.

**(j) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2017-21R1, dated June 28, 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-2018-0635.

(2) For more information about this AD, contact Anthony Flores, Aerospace Engineer, Propulsion and Program Management Section, Chicago ACO Branch,

Room 107, 2300 East Devon Avenue, Des Plaines, IL 60018; telephone 847-294-7140; fax 847-294-7834.

(3) For information about AMOCs, contact Joe Catanzaro, Aerospace Engineer, Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7366; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov.

(4) 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. 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.

Issued in Des Moines, Washington, on July 13, 2018.

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

[FR Doc. 2018-15659 Filed: 7/20/2018 8:45 am; Publication Date: 7/23/2018]