



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0635; Product Identifier 2017-NM-183-AD; Amendment 39-19490; AD 2018-23-04]

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-8-102, -103, and -106 airplanes; Model DHC-8-200 series airplanes; and Model DHC-8-300 series airplanes. 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. This AD requires an inspection of the auto ignition system and applicable rectification. 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 a certain publication 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-2018-0635.

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 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: Joe Catanzaro, Aerospace Engineer, Airframe and 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.

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-8-102, -103, and -106 airplanes; Model DHC-8-200 series airplanes; and Model DHC-8-300 series airplanes. The NPRM published in the Federal Register on July 23, 2018 (83 FR 34800). The NPRM 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. The NPRM proposed to require an inspection of the auto ignition system and applicable rectification. We are issuing this AD to address 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.

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.

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 Service Bulletin 8-74-07, dated April 13, 2016. This service information describes procedures for 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.

Costs of Compliance

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

We estimate the following costs to comply with this 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 | \$0 | \$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 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 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):

2018-23-04 Bombardier, Inc.: Amendment 39-19490; Docket No. FAA-2018-0635;
Product Identifier 2017-NM-183-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-8-102, -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 address 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 6,000 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 Summary Package 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 Joe Catanzaro, Aerospace Engineer, Airframe and 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.

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

(k) Material Incorporated by Reference

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

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

(i) Bombardier Service Bulletin 8-74-07, dated April 13, 2016.

(ii) [Reserved]

(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 October 26, 2018.

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

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