



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2015-0676; Directorate Identifier 2014-NM-164-AD; Amendment 39-18238; AD 2015-17-05]**

**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 BD-700-1A10 and BD-700-1A11 airplanes. This AD was prompted by a report of several events where pilots experienced difficulty in lateral control of the airplane after doing a climb through heavy rain conditions and a determination that the cause was water ingress in the aileron control pulley assembly. This AD requires, for certain airplanes, inspecting for correct clearance and rework if necessary, and, for certain other airplanes, installing a cover for the aileron pulley assembly. We are issuing this AD to prevent water ingress in the aileron control pulley assembly, which could freeze in cold conditions and result in reduced control of the airplane.

**DATES:** This AD becomes 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:** You may examine the AD docket on the Internet at <http://www.regulations.gov/#!docketDetail;D=FAA-2015-0676> or in person at the Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email [thd.crj@aero.bombardier.com](mailto:thd.crj@aero.bombardier.com); Internet <http://www.bombardier.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-0676.

**FOR FURTHER INFORMATION CONTACT:** Fabio Buttitta, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office (ACO), 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7303; fax 516-794-5531.

## **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 BD-700-1A10 and BD-700-1A11 airplanes. The NPRM published in the Federal Register on March 30, 2015 (80 FR 16608).

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2014-23, dated July 18, 2014 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc. Model BD-700-1A10 and BD-700-1A11 airplanes. The MCAI states:

There have been several reports whereby pilots have experienced difficulty in lateral control following climb through heavy rain conditions. In each event, the pilots were able to overcome this difficulty without disconnecting the aileron control. An investigation has determined that the root cause of the restricted movement of the aileron was due to water ingress into the wing root aileron control pulley assembly through a gap on the wing-to-fuselage fairing resulting in freezing of the aileron control system.

If not corrected, this condition could result in reduced lateral control of the aeroplane.

This [Canadian] AD mandates [for certain airplanes] the incorporation of a cover for the aileron pulley assembly [and inspection and rework if necessary] to prevent water ingress in the aileron control pulley assembly [and for certain other airplanes, mandates an inspection and rework if necessary].

The inspection involves doing a general visual inspection for correct clearance. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2015-0676-0002>.

### **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (80 FR 16608, March 30, 2015) or on the determination of the cost to the public.

### **Conclusion**

We reviewed the relevant data and determined that air safety and the public interest require adopting this AD 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 (80 FR 16608, March 30, 2015) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (80 FR 16608, March 30, 2015).

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

Bombardier has issued the following service information:

- Service Bulletin 700-1A11-27-034, Revision 04, dated September 4, 2014;
- Service Bulletin 700-27-076, Revision 04, dated September 4, 2014;
- Service Bulletin 700-27-5004, Revision 04, dated September 4, 2014; and
- Service Bulletin 700-27-6004, Revision 04, dated September 4, 2014.

This service information describes procedures, for certain airplanes, for installing a cover for the No. 1 aileron pulley, including an inspection for correct clearance and rework, and for certain other airplanes, for an inspection for correct clearance and rework. 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 of this AD.

### **Costs of Compliance**

We estimate that this AD affects 60 airplanes of U.S. registry.

We also estimate that it will take about 9 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$45,900, or \$765 per product.

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

### **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.

### **Regulatory Findings**

We determined that 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.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov/#!docketDetail;D=FAA-2015-0676>; 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 AD, 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.

**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):

**2015-17-05 Bombardier, Inc.:** Amendment 39-18238. Docket No. FAA-2015-0676; Directorate Identifier 2014-NM-164-AD.

**(a) Effective Date**

This AD becomes 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 BD-700-1A10 and BD-700-1A11 airplanes, certificated in any category, having serial numbers 9002 through 9520 inclusive and 9998.

**(d) Subject**

Air Transport Association (ATA) of America Code 27, Flight Controls.

**(e) Reason**

This AD was prompted by a report of several events where pilots experienced difficulty in lateral control of the airplane after doing a climb through heavy rain conditions and a determination that the cause was water ingress in the aileron control pulley assembly. We are issuing this AD to prevent water ingress in the aileron control pulley assembly, which could freeze in cold conditions and result in reduced control of the airplane.

**(f) Compliance**

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

**(g) Installation of Cover for the Aileron Pulley Assembly**

Except as provided by paragraph (j) of this AD, for airplanes on which a cover for the No. 1 aileron pulley has not been installed as of the effective date of this AD: Within 150 flight cycles after the effective date of this AD, install a cover for the No. 1 aileron pulley, including doing a general visual inspection for correct clearance and rework as applicable, in accordance with paragraph C., “PART B – Modification,” of the

Accomplishment Instructions of the applicable service bulletins identified in paragraphs (g)(1) and (g)(2) for this AD.

(1) For Model BD-700-1A10 airplanes: Bombardier Service Bulletin 700-27-076, Revision 04, dated September 4, 2014; or 700-27-6004, Revision 04, dated September 4, 2014.

(2) For Model BD-700-1A11 airplanes: Bombardier Service Bulletin 700-1A11-27-034, Revision 04, dated September 4, 2014; or 700-27-5004, Revision 04, dated September 4, 2014.

**(h) Inspection and Rework**

Except as provided by paragraph (j) of this AD, for airplanes on which a cover for the No. 1 aileron pulley has been incorporated using the applicable service information identified in paragraphs (h)(1) and (h)(2) of this AD as of the effective date of this AD: Within 150 flight cycles after the effective date of this AD, do a general visual inspection for correct clearance and, before further flight, rework, as applicable, in accordance with paragraph B., “PART A – Inspection and Rework,” of the Accomplishment Instructions of the applicable service information identified in paragraphs (g)(1) and (g)(2) of this AD.

(1) For Model BD-700-1A10 airplanes: Bombardier Service Bulletin 700-27-076, dated March 5, 2012; or 700-27-6004, dated March 5, 2012.

(2) For Model BD-700-1A11 airplanes: Bombardier Service Bulletin 700-1A11-27-034, dated March 5, 2012; or 700-27-5004, dated March 5, 2012.

**(i) Re-identification of Overwing Panels**

Except as provided by paragraph (j) of this AD, for airplanes on which the Service Non-Incorporated Engineering Orders (SNIEO) or Service Requests for Product Support Action (SRPSA) that are listed in table 2 of paragraph 1.A., “Effectivity,” in the applicable service information identified in paragraphs (i)(1), (i)(2), and (i)(3) of this AD have been incorporated: Within 150 flight cycles from the effective date of this AD, do the re-identification of the overwing panels, in accordance with paragraph 2.B(2)(g) of the Accomplishment Instructions of the applicable service information identified in paragraphs (g)(1) and (g)(2) of this AD.

(1) Bombardier Service Bulletin 700-27-076, Revision 04, dated September 4, 2014.

(2) Bombardier Service Bulletin 700-27-6004, Revision 04, dated September 4, 2014.

(3) Bombardier Service Bulletin 700-1A11-27-034, Revision 04, dated September 4, 2014.

**(j) Exception to the Requirements of Paragraphs (g), (h), and (i) of this AD**

Airplanes on which the applicable SRPSA, as identified in table 1 of paragraph 1.A., “Effectivity,” in the applicable service information identified in paragraph (j)(1), (j)(2), or (j)(3) of this AD has been accomplished as of the effective date of this AD, meet the intent of paragraphs (g), (h), and (i) of this AD, and no further action is required.

(1) Bombardier Service Bulletin 700-27-076, Revision 04, dated September 4, 2014.

(2) Bombardier Service Bulletin 700-27-6004, Revision 04, dated September 4, 2014.

(3) Bombardier Service Bulletin 700-1A11-27-034, Revision 04, dated September 4, 2014.

**(k) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraphs (g), (h), and (i) of this AD, if those actions were performed before the effective date of this AD using the applicable service information identified in paragraphs (k)(1) through (k)(8) of this AD, which are not incorporated by reference in this AD.

(1) Bombardier Service Bulletin 700-1A11-27-034, Revision 01, dated July 16, 2012.

(2) Bombardier Service Bulletin 700-1A11-27-034, Revision 02, dated June 17, 2014.

(3) Bombardier Service Bulletin 700-27-076, Revision 01, dated July 16, 2012.

(4) Bombardier Service Bulletin 700-27-076, Revision 02, dated June 17, 2014.

(5) Bombardier Service Bulletin 700-27-5004, Revision 01, dated July 16, 2012.

(6) Bombardier Service Bulletin 700-27-5004, Revision 02, dated June 17, 2014.

(7) Bombardier Service Bulletin 700-27-6004, Revision 01, dated July 16, 2012.

(8) Bombardier Service Bulletin 700-27-6004, Revision 02, dated June 17, 2014.

**(l) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, New York Aircraft Certification Office (ACO), ANE-170, 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 ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 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. The AMOC approval letter must specifically reference 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, ANE-170, 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.

**(m) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2014-23, dated July 18, 2014, for related information. This

MCAI may be found in the AD docket on the Internet at

<http://www.regulations.gov/#!documentDetail;D=FAA-2015-0676-0002>.

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

**(n) 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 700-1A11-27-034, Revision 04, dated September 4, 2014.

(ii) Bombardier Service Bulletin 700-27-076, Revision 04, dated September 4, 2014.

(iii) Bombardier Service Bulletin 700-27-5004, Revision 04, dated September 4, 2014.

(iv) Bombardier Service Bulletin 700-27-6004, Revision 04, dated September 4, 2014.

(3) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email [thd.crj@aero.bombardier.com](mailto:thd.crj@aero.bombardier.com); Internet <http://www.bombardier.com>.

(4) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(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 Renton, Washington, on August 10, 2015.

Michael Kaszycki,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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