DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0399; Product Identifier 2018-NM-008-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 supersede Airworthiness Directive (AD) 2015-17-04, which applies to certain Bombardier, Inc., Model CL-600-2C10 (Regional Jet Series 700, 701, & 702), Model CL-600-2D15 (Regional Jet Series 705), and Model CL-600-2D24 (Regional Jet Series 900) airplanes. AD 2015-17-04 requires replacement of left and right fixed control rods and lever assemblies of the elevator control system. Since we issued AD 2015-17-04, we have received a report indicating that certain revisions of the service information were missing instructions. This proposed AD would require a detailed visual inspection of the key washers and self-locking nuts of the elevator control linkages and corrective actions if necessary. 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., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; Widebody Customer Response Center North America toll-free telephone: 1-866-538-1247 or direct-dial telephone: 1-514-855-2999; fax: 514-855-7401; email: ac.yul@aero.bombardier.com; Internet: http://www.bombardier.com. You may view this referenced 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-2018-0399; 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: Cesar Gomez, Aerospace Engineer, Airframe and Mechanical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: 516-228-7318; fax: 516-794-5531.

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-2018-0399; Product Identifier 2018-NM-008-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD 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 proposed AD.

Discussion

We issued AD 2015-17-04, Amendment 39-18237 (80 FR 50556, August 20, 2015) (“AD 2015-17-04”), for certain Bombardier, Inc., Model CL-600-2C10 (Regional
Jet Series 700, 701, & 702), Model CL-600-2D15 (Regional Jet Series 705), and Model CL-600-2D24 (Regional Jet Series 900) airplanes. AD 2015-17-04 requires replacement of left and right fixed control rods and lever assemblies of the elevator control system. AD 2015-17-04 resulted from reports of a disconnect between the elevator lever and control rod. We issued AD 2015-17-04 to prevent a disconnect between the elevator lever and control rod, which could lead to uncommanded elevator movement of the associated control surface, a large difference between the position of the left and the right elevator control surfaces, and consequent reduced controllability of the airplane and degradation of the structural integrity of the horizontal stabilizer.

**Actions Since AD 2015-17-04 Was Issued**

Since we issued AD 2015-17-04, we have received a report indicating that certain revisions of the service information were missing instructions for proper installation of the key washers part number BA698-93726-3.

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian AD CF-2014-44R1, dated October 6, 2017 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc., Model CL-600-2C10 (Regional Jet Series 700, 701, & 702), Model CL-600-2D15 (Regional Jet Series 705), and Model CL-600-2D24 (Regional Jet Series 900) airplanes. The MCAI states:

During an engineering review of the Elevator Control system, it was discovered that a disconnect between the elevator lever and control rod could lead to an uncommanded elevator movement of the associated control surface. This uncommanded movement may cause a large difference between the position of the left and the right
elevator control surface resulting in reduced controllability of the aeroplane and compromised structural integrity of the horizontal stabilizer.

This [Canadian] AD mandates the replacement of the existing elevator lever assemblies and control rods with newly designed ones, which will prevent a disconnect between the components of the elevator control system should a failure occur.

Revision 1 of this [Canadian] AD is issued to require operators, * * * [regardless of previously accomplished actions], to perform a detailed visual inspection for the correct installation of the tab key washers and to re-torque the nut(s) [and corrective actions that include bending one tab of the key washer on a flat surface of the self-locking nut] if the tab key washer(s) does not have one tab bent on a flat surface of the self-locking nut.

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-2018-0399.

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

Bombardier, Inc., has issued the following service information:

- Bombardier Service Bulletin 670BA-27-062, Revision C, dated February 13, 2015. This service information describes procedures for replacing the elevator lever assemblies and control rods.

- Bombardier Service Bulletin 670BA-27-062, Revision E, dated June 8, 2017. This service information describes procedures for replacing the elevator lever assemblies and control rods, and a detailed visual inspection of the key washers and self-locking nuts of the elevator control linkages and corrective actions, which include bending the tab of the key washers and re-torquing the self-locking nuts.
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 these same type designs.
**Costs of Compliance**

We estimate that this proposed AD affects 549 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
<th>Cost on U.S. operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replacement of fixed control rods and lever assemblies (retained actions from AD 2015-17-04)</td>
<td>14 work-hours X $85 per hour = $1,190</td>
<td>$6,712</td>
<td>$7,902</td>
<td>$4,338,198</td>
</tr>
<tr>
<td>Detailed visual inspection of the key washers and self-locking nuts (new proposed action)</td>
<td>3 work-hours X $85 per hour = $255</td>
<td>$0</td>
<td>$255</td>
<td>$139,995</td>
</tr>
</tbody>
</table>

**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 removing Airworthiness Directive (AD) 2015-17-04, Amendment 39-18237 (80 FR 50556, August 20, 2015), and adding the following new 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

This AD replaces AD 2015-17-04, Amendment 39-18237 (80 FR 50556, August 20, 2015) (“AD 2015-17-04”).

(c) Applicability

This AD applies to the airplanes identified in paragraphs (c)(1) and (c)(2) of this AD, certificated in any category.
(1) Bombardier, Inc., Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, serial numbers 10002 through 10337 inclusive.

(2) Bombardier, Inc., Model CL-600-2D15 (Regional Jet Series 705) airplanes and Model CL-600-2D24 (Regional Jet Series 900) airplanes, serial numbers 15001 through 15298 inclusive.

(d) Subject

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

(e) Reason

This AD was prompted by reports of a disconnect between the elevator lever and control rod and a report indicating that certain revisions of the service information were missing instructions for proper installation of the key washers part number BA698-93726-3. We are issuing this AD to prevent a disconnect between the elevator lever and control rod, which could lead to uncommanded elevator movement of the associated control surface, a large difference between the position of the left and the right elevator control surfaces, and consequent reduced controllability of the airplane and degradation of the structural integrity of the horizontal stabilizer.

(f) Compliance

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

(g) Retained Replacement of Elevator Lever Assemblies and Control Rods, with Revised Service Information

This paragraph restates the requirements of paragraph (g) of AD 2015-17-04, with revised service information. Within 9,200 flight hours or 5 years, whichever occurs first, after September 24, 2015 (the effective date of AD 2015-17-04): Replace the left and
right fixed control rods and lever assemblies of the elevator control system with newly
designed control rods and lever assemblies, in accordance with the Accomplishment
Instructions of Bombardier Service Bulletin 670BA-27-062, Revision C, dated
February 13, 2015; or Bombardier Service Bulletin 670BA-27-062, Revision E, dated
June 8, 2017. After the effective date of this AD, only Bombardier Service Bulletin
670BA-27-062, Revision E, dated June 8, 2017, may be used.

(h) New Requirement of this AD: Detailed Visual Inspection and Corrective Actions

Within 8,800 flight hours after the effective date of this AD, do a detailed visual
inspection of the key washers and self-locking nuts of the elevator control linkages, and
do all applicable corrective actions, in accordance with the Accomplishment Instructions
of Bombardier Service Bulletin 670BA-27-062, Revision E, dated June 8, 2017. Do all
applicable corrective actions before further flight.

(i) Credit for Previous Actions

(1) This paragraph provides credit for actions required by paragraph (g) of this
AD, if those actions were performed before the effective date of this AD using
Bombardier Service Bulletin 670BA-27-062, dated December 12, 2013; Bombardier
Service Bulletin 670BA-27-062, Revision A, dated April 1, 2014; Bombardier Service
Bulletin 670BA-27-062, Revision B, dated October 10, 2014; or Bombardier Service
Bulletin 670BA-27-062, Revision D, dated December 1, 2015. This service information
is not incorporated by reference in this AD.

(2) This paragraph provides credit for actions required by paragraph (h) of this
AD, if those actions were performed before the effective date of this AD using the service
information specified in paragraphs (i)(2)(i) or (i)(2)(ii) of this AD, provided those actions were done concurrently with Bombardier Service Non-Incorporated Engineering Order (SNIEO) KBA670-93707 S02, dated July 21, 2015.


(ii) Bombardier Service Bulletin 670BA-27-062, Revision C, dated February 13, 2015 (80 FR50556, August 20, 2015). This service information is incorporated by reference in this AD.

(3) This paragraph provides credit for actions required by paragraph (h) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 670BA-27-062, Revision D, dated December 1, 2015. This service information is not incorporated by reference in this AD.

(j) 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, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone:
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.

AMOCs approved previously for AD 2015-17-04, are approved as AMOCs for the corresponding provisions 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 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 AD CF-2014-44R1, dated October 6, 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-2018-0399.

(2) For more information about this AD, contact Cesar Gomez, Aerospace Engineer, Airframe and Mechanical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: 516-228-7318; fax: 516-794-5531.
(3) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; Widebody Customer Response Center North America toll-free telephone: 1-866-538-1247 or direct-dial telephone: 1-514-855-2999; fax: 514-855-7401; email: ac.yul@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 May 1, 2018.

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

[FR Doc. 2018-09846 Filed: 5/10/2018 8:45 am; Publication Date: 5/11/2018]