[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0907; Product Identifier 2017-NM-069-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 CL-600-1A11 (CL-600), CL-600-2A12 (CL-601 Variant), and CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes. This proposed AD was prompted by reports of fractured rudder pedal tubes on the pilot-side rudder bar assembly. This proposed AD would require repetitive inspections of the rudder pedal tubes for cracking and corrective actions if necessary. Replacement of both pilot-side rudder bar assemblies is terminating action for the inspections. 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 service information at the FAA, Transport Standards Branch, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

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-2017-0907; 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: Aziz Ahmed, Aerospace Engineer, Airframe and Mechanical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7329; fax 516-794-5531.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2017-0907; Product Identifier 2017-NM-069-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 Airworthiness Directive CF-2017-09, dated February 22, 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-600-1A11 (CL-600), CL-600-2A12 (CL-601 Variant), and CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes. The MCAI states:

> There have been two in-service reports of fractured rudder pedal tubes installed on the pilot-side rudder bar assembly on CL-600-2B19 aeroplanes. Laboratory examination of the fractured rudder pedal tubes found that in both cases, the fatigue cracks initiated at the aft taper pin holes where the connecting rod fitting is attached. Fatigue testing of the rudder pedal tubes confirmed that the fatigue cracking is due to loads induced during parking brake application. Therefore, only the rudder pedal tubes on the pilot's side are vulnerable to fatigue cracking as the parking brake is primarily applied by the pilot.
>
> Loss of pilot rudder pedal input during flight would result in reduced yaw controllability of the aeroplane. Loss of pilot rudder pedal input during takeoff or landing may lead to a runway excursion.
>
> This [Canadian] AD mandates initial and repetitive [detailed visual or eddy current] inspections [for cracking] of both pilot-side rudder pedal tubes, part number (P/N) 600-90204-3 until the terminating action in Part III of this [Canadian] AD is accomplished [i.e., replacement of both pilot-side rudder bar assemblies].

Corrective actions include replacement of both pilot-side rudder bar assemblies and repair. 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-2017-0907.

Related Service Information under 1 CFR part 51

Bombardier, Inc., has issued the following service information. The service information describes procedures for repetitive inspections of the rudder pedal tubes for

cracking, replacement of both pilot-side rudder bar assemblies, and repair. These documents are distinct since they apply to different airplane models.

• Service Bulletin 600-0770, Revision 01, including Appendix A, dated March 31, 2016.

• Service Bulletin 601-0643, Revision 01, including Appendix A, dated March 31, 2016.

• Service Bulletin 604-27-037, dated March 31, 2016, including Appendix A, Revision 01, dated March 31, 2016.

• Service Bulletin 605-27-002, dated June 30, 2016, including Appendix A, Revision 01, dated March 31, 2016.

• Service Bulletin 605-27-008, dated March 31, 2016, including Appendix A, Revision 01, dated March 31, 2016.

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 141 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
Inspections	10 work-hours X $85 per hour = $850 per inspection cycle	$0	$850 per inspection cycle	$119,850 per inspection cycle

On-condition costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Replacement	2 work-hours X $85 per hour = $170	$8,564	$8,734	$1,231,494

We have received no definitive data that would enable us to provide cost estimates for any on-condition repairs specified in this proposed AD. We have no way of determining the number of aircraft that might need this repair.

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-2017-0907; Product Identifier 2017-NM-069-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 the Bombardier, Inc., airplanes identified in paragraphs (c)(1) through (c)(3) of this AD, certificated in any category.

(1) Model CL-600-1A11 (CL-600) airplanes, serial numbers (S/Ns) 1004 through 1085 inclusive.

(2) Model CL-600-2A12 (CL-601 Variant) airplanes, S/Ns 3001 through 3066 inclusive.

(3) Model CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes, S/Ns 5001 through 5194 inclusive, S/Ns 5301 through 5665 inclusive, S/Ns 5701 through 5988 inclusive, and S/Ns 6050 through 6099 inclusive.

(d) Subject

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

(e) Reason

This AD was prompted by reports of fractured rudder pedal tubes on the pilot-side rudder bar assembly. We are issuing this AD to detect and correct cracking of the pilot-side rudder pedal tubes. Loss of pilot rudder pedal input during flight could result in reduced yaw controllability of the airplane. Loss of pilot rudder pedal input during takeoff or landing could lead to a runway excursion.

(f) Compliance

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

(g) Repetitive Inspections and Part Marking

At the applicable time specified in figure 1 to paragraph (g) of this AD, do a detailed or eddy current inspection of both pilot-side rudder pedal tubes for cracking, in accordance with Part A of the Accomplishment Instructions of the applicable service information identified in paragraphs (g)(1) through (g)(6) of this AD. If no cracking is found, before further flight, mark the part in accordance with Part A of the Accomplishment Instructions of the applicable service information identified in paragraphs (g)(1) through (g)(6) of this AD. Repeat the detailed or eddy current inspection thereafter at intervals not to exceed 600 flight cycles if a detailed inspection was performed, or 1,000 flight cycles if an eddy current inspection was performed. Repeat the inspection until the terminating action specified in paragraph (i) of this AD is accomplished.

(1) For Model CL-600-1A11 (CL-600) airplanes, S/Ns 1004 through 1085 inclusive: Bombardier, Inc., Service Bulletin 600-0770, Revision 01, including Appendix A, dated March 31, 2016.

(2) For Model CL-600-2A12 (CL-601 Variant) airplanes, S/Ns 3001 through 3066 inclusive: Bombardier, Inc., Service Bulletin 601-0643, Revision 01, including Appendix A, dated March 31, 2016.

(3) Model CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes, S/Ns 5001 through 5194 inclusive: Bombardier, Inc., Service Bulletin 601-0643, Revision 01, including Appendix A, dated March 31, 2016.

(4) Model CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes, S/Ns 5301 through 5665 inclusive: Bombardier, Inc., Service Bulletin 604-27-037, dated March 31, 2016, including Appendix A, Revision 01, dated March 31, 2016.

(5) Model CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes, S/Ns 5701 through 5988 inclusive: Bombardier, Inc., Service Bulletin 605-27-008, dated March 31, 2016, including Appendix A, Revision 01, dated March 31, 2016.

(6) Model CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes, S/Ns 6050 through 6099 inclusive: Bombardier, Inc., Service Bulletin 605-27-002, dated June 30, 2016, including Appendix A, Revision 01, dated March 31, 2016.

Figure 1 to Paragraph (g) of this AD – *Compliance Times*

Airplanes	Compliance Time
Airplanes with fewer than 8,250 total flight cycles as of the effective date of this AD	Prior to the accumulation of 9,000 total flight cycles
Airplanes with 8,250 total flight cycles or more but fewer than 16,625 total flight cycles as of the effective date of this AD	Within 24 months or 750 flight cycles, whichever occurs first, after the effective date of this AD
Airplanes with 16,625 total flight cycles or more as of the effective date of this AD	Within 12 months or 375 flight cycles, whichever occurs first, after the effective date of this AD

(h) Corrective Actions

(1) If any cracking is found around the aft tapered holes during any inspection required by paragraph (g) of this AD, before further flight, replace both pilot-side rudder bar assemblies, in accordance with Part B of the Accomplishment Instructions of the applicable service information identified in paragraphs (g)(1) through (g)(6) of this AD.

(2) If any other damage (e.g., corrosion) is found, during any inspection required by paragraph (g) of this AD, before further flight, repair 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).

(i) Optional Terminating Action

Replacement of both pilot-side rudder bar assemblies in accordance with Part B of the Accomplishment Instructions of the applicable service information identified in paragraphs (g)(1) through (g)(6) of this AD terminates the inspections required by paragraph (g) of this AD.

(j) Replacement - No Terminating Action

Replacement of both pilot-side rudder bar assemblies using Part B of the Accomplishment Instructions of Bombardier Service Bulletin 600-0770, dated August 31, 2015; or Bombardier Service Bulletin 601-0643, dated August 31, 2015; is not terminating action for the inspections required by paragraph (g) of this AD.

(k) 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 TCCA; or Bombardier, Inc.'s TCCA DAO. If approved by the DAO, the approval must include the DAO-authorized signature.

(l) Special Flight Permits

Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are not allowed if any cracking is found during any inspection required by paragraph (g) of this AD.

(m) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2017-09, dated February 22, 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-2017-0907.

(2) For more information about this AD, contact Aziz Ahmed, Aerospace Engineer, Airframe and Mechanical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7329; 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, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on October 11, 2017.

Jeffrey E. Duven,
Director,
System Oversight Division,
Aircraft Certification Service.
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