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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-9304; Directorate Identifier 2016-NM-028-AD; Amendment 39-18959; AD 2017-14-15]

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 reports of aileron and rudder control cables that may have tensions that are beyond allowable limits. This AD requires a revision to the maintenance or inspection program to incorporate certification maintenance requirement tasks that introduce functional tests of the control cable tension. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective August 31, 2017.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of August 31, 2017.

ADDRESSES: For service information identified in this final rule, 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; 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-2016-9304.

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-2016-9304; 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 Office (telephone 800-647-5527) is 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 20590.

FOR FURTHER INFORMATION CONTACT: Cesar Gomez, 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: 516-228-7318; 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 November 7, 2016 (81 FR 78080). The NPRM was prompted by reports of aileron and rudder control cables that may have tensions that are beyond allowable limits. The NPRM proposed to require revising the maintenance or inspection program to incorporate certification maintenance requirement tasks that introduce functional tests of the control cable tension. We are issuing this AD to detect and correct out-of-tolerance tension in the control cables, which, with certain system failures and environmental conditions, could result in reduced controllability of the airplane.

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2016-06R1, dated July 25, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier Model BD-700-1A10 and BD-700-1A11 airplanes. The MCAI states:

Recent in-service inspections have shown that aileron and rudder control cables may have tensions beyond allowable limits. Review of the technical documentation found that there are no maintenance tasks to detect and rectify out-of-tolerance tensions on these cables. Out of tolerance cables in combinations with certain system failures and environmental conditions could result in the degraded aircraft controllability.

* * * [This Canadian] AD was issued to mandate a revision to the approved maintenance schedule [maintenance or inspection program, as applicable] to introduce cable tension check [e.g., functional test,] as [certification maintenance requirement] tasks.

You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9304.

This AD requires revisions to certain operator maintenance documents to include new actions (e.g., inspections). Compliance with these actions is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by this AD, the operator may not be able to accomplish the actions described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance according to paragraph (j)(1) of this AD. The request should include a description of changes to the required actions that will ensure the continued operational safety of the airplane.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request To Reference the Latest Time Limits/Maintenance Checks (TLMC) General Revision Instead of the Temporary Revision (TR)

Bombardier, Inc., and KACALP Flight Operations requested that paragraph (g) of this AD, reference the latest TLMC general revision for each affected Bombardier, Inc. airplane model instead of the TR to each applicable TLMC. The commenters noted that the TLMC TRs are no longer available on Bombardier's Web site, as they have been incorporated into the TLMC Revision. The commenters indicated that the Canadian Airworthiness Directive CF-2016-06R1, dated July 25, 2016, references these TLMC Revisions, as should the FAA AD.

We do not agree to delay issuance of this AD to reference the latest TLMC general revision. Paragraph (g) of this AD states that when the applicable TR has been included in a general revision of the TLMC, the general revision may be inserted in the maintenance or inspection program and the applicable TR may be removed. The TR for each affected Bombardier, Inc. airplane model TLMC is available on the Internet at <http://www.regulations.gov>. The service information can be found by searching for and locating Docket No. FAA-2016-9304. We have, however, added note 1 to paragraph (g) of this AD to identify the TLMC task number and airplane maintenance manual (AMM) manual number that corresponds to each TR.

Request To Revise Compliance Time

Bombardier, Inc., and KACALP Flight Operations requested that we revise paragraphs (h)(1) and (h)(2) of the proposed AD to remove the later alternative compliance time “within 30 months since the date of issuance of the original Canadian airworthiness certificate or the date of issuance of the original Canadian export certificate of airworthiness.” The commenters noted that some airplanes have already exceeded, or will soon exceed, this threshold and would be immediately grounded by the proposed AD.

We agree with the request. We have revised the compliance time in paragraphs (h)(1) and (h)(2) of this AD to within 15 months after the effective date of this AD. We have determined that this change will not affect flight safety or the calculated risk assessment, and will not impose any additional burden on any operator.

Request To Remove Paragraph (h)(3) of This AD

Bombardier, Inc., requested that paragraph (h)(3) of this AD be removed. Bombardier, Inc., noted that the Canadian AD CF-2016-06R1, dated July 25, 2016, did not give any actions for the aircraft in paragraph (h) of this AD. Bombardier, Inc. indicated that for these aircraft, inserting the certification maintenance requirements (CMR) task into the scheduled maintenance or inspection program, as described in paragraph (g) of this AD, and following the specified task interval in the TLMC is sufficient.

We do not agree to remove paragraph (h)(3) of this AD. Paragraph (h) of this AD provides the compliance times for the initial actions that are incorporated into the maintenance or inspection program, as specified in paragraph (g) of this AD. These compliance times are necessary to provide a starting point for the inspections. The FAA finds it necessary to specify initial compliance times for maintenance actions in ADs because this information is not normally included in the design approval holder's (DAH) service information. The airplanes identified in paragraph (h)(3) of this AD are also identified in paragraph (g) of this AD. We have not changed this AD in this regard.

Request To Include CMR Tasks and Procedures

KACALP Flight Operations requested that we revise paragraph (i) of the proposed AD to include the inspection intervals and procedural instructions in the referenced TR of the Bombardier Model BD-700-1A10 and BD-700-1A11 airplanes' CMR. KACALP Flight Operations then suggested that

these instructions in paragraph (i) of the proposed AD be referenced in the TLMC and AMM as a way to ensure compliance with each subsequent revision to the TLMC and AMM. KACALP Flight Operations stated that owner/operators are not obligated by regulation to own a technical subscription from the original equipment manufacturer (OEM), but that most recipients of a Bombardier Technical Library own a digital subscription. Bombardier, Inc. automatically removes the TRs and updates the standard issue to the TLMC and AMM without immediate notice. Bombardier stated that nothing would trigger either the OEM or the subscriber to look for changes to an interval or procedure; therefore, these owner/operators would not know if there is a change to an interval or procedure. KACALP Flight Operations suggested that the FAA could mandate a maintenance record requirement specifically for aircraft inspection programs.

We find that clarification is necessary. When possible, we rely on the DAH to provide accomplishment instructions in their service information; referencing this information provides for brevity in ADs and minimizes errors in ADs. Owners/operators are responsible for compliance with ADs, as well as the proper maintenance and safe operation of their airplanes, by adhering to the actions specified in the TLMC and AMM. Therefore, we have not changed paragraph (i) of this AD.

We also do not agree to mandate a maintenance record requirement specifically for aircraft inspection programs. At this time, the FAA does not require manufacturers to reference ADs within their service information. We have not changed this AD in this regard.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

Related Service Information Under 1 CFR Part 51

We reviewed the following Bombardier, Inc. service information:

- TR 5-2-10, dated November 24, 2015, to Section 5-10-40, of Bombardier Global Express XRS BD-700 Time Limits/Maintenance Checks.
- TR 5-2-15, dated November 24, 2015, to Section 5-10-40, of Bombardier Global 6000 GL 6000 Time Limits/Maintenance Checks.
- TR 5-2-15, dated November 24, 2015, to Section 5-10-40, of Bombardier Global 5000 GL 5000 Featuring Global Vision Flight Deck–

Time Limits/Maintenance Checks.

- TR 5-2-16, dated November 24, 2015, to Section 5-10-40, of Bombardier Global 5000 BD-700 Time Limits/Maintenance Checks.
- TR 5-2-47, dated November 24, 2015, to Section 5-10-40, of Bombardier Global Express BD-700 Time Limits/Maintenance Checks.

The service information identifies airworthiness limitation tasks for functional tests of the cable tension of the aileron and rudder control cables. These documents are distinct since they apply to different airplane models. 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 60 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
Maintenance or Inspection Program Revision	1 work-hour × \$85 per hour = \$85 per airplane	\$0	\$85	\$5,100

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.

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):



FAA
Aviation Safety

AIRWORTHINESS DIRECTIVE

www.faa.gov/aircraft/safety/alerts/
www.gpoaccess.gov/fr/advanced.html

2017-14-15 Bombardier, Inc.: Amendment 39-18959; Docket No. FAA-2016-9304; Directorate Identifier 2016-NM-028-AD.

(a) Effective Date

This AD is effective August 31, 2017.

(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, serial numbers 9002 through 9743 inclusive, and 9998.

(d) Subject

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

(e) Reason

This AD was prompted by reports of aileron and rudder control cables that may have tensions that are beyond allowable limits. We are issuing this AD to detect and correct out-of-tolerance tension in the control cables, which, with certain system failures and environmental conditions, could result in reduced controllability of the airplane.

(f) Compliance

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

(g) Time Limits/Maintenance Checks (TLMC)–Maintenance or Inspection Program Revision

Within 30 days after the effective date of this AD, revise the maintenance or inspection program, as applicable, to incorporate certification maintenance requirement (CMR) tasks 27-11-35-101, 27-11-35-102, and 27-21-27-101 (for functional tests of the control cable tension), as specified in the applicable service information in paragraphs (g)(1) through (g)(5) of this AD. The initial compliance time for doing the tasks is specified in paragraph (h) of this AD. When the applicable temporary revision (TR) has been included in general revisions of the TLMC, the general revisions may be inserted in the maintenance or inspection program, and the applicable TR may be removed, provided the relevant information in the general revision is identical to that in the applicable TR.

(1) TR 5-2-10, dated November 24, 2015, to Section 5-10-40, of Bombardier Global Express XRS BD-700 Time Limits/Maintenance Checks (for Model BD-700-1A10 airplanes).

(2) TR 5-2-15, dated November 24, 2015, to Section 5-10-40, of Bombardier Global 6000 GL 6000 Time Limits/Maintenance Checks (for Model BD-700-1A10 airplanes).

(3) TR 5-2-47, dated November 24, 2015, to Section 5-10-40, of Bombardier Global Express BD-700 Time Limits/Maintenance Checks (for Model BD-700-1A10 airplanes).

(4) TR 5-2-15, dated November 24, 2015, to Section 5-10-40, of Bombardier Global 5000 GL 5000 Featuring Global Vision Flight Deck—
Time Limits/Maintenance Checks (for Model BD-700-1A11 airplanes).

(5) TR 5-2-16, dated November 24, 2015, to Section 5-10-40, of Bombardier Global 5000 BD-700 Time Limits/Maintenance Checks (for Model BD-700-1A11 airplanes).

Note 1 to Paragraph (g) of this AD: The TRs identified in paragraph (g) of this AD have been incorporated into their respective airplane model AMM as follows:

Bombardier Model BD-700-1A10: GL 700 AMM, Revision 67, dated August 6, 2015; GL XRS AMM, Revision 45, dated August 6, 2015; GL 6000 AMM, Revision 15, dated August 6, 2015.

Bombardier Model BD-700-1A11: GL 5000 AMM, Revision 48, dated August 6, 2015; GL 5000 GVFD AMM, Revision 15, dated August 6, 2015.

(h) Initial Compliance Times for CMR Tasks

The initial compliance times for doing the CMR tasks identified in paragraph (g) of this AD are at the applicable times specified in paragraphs (h)(1), (h)(2), and (h)(3) of this AD.

(1) For airplanes having serial numbers (S/Ns) 9002 through 9694 inclusive, and 9998: Within 15 months after the effective date of this AD.

(2) For airplanes having S/Ns 9695 through 9743 inclusive that have had aileron and/or rudder control cable replacement and the aileron and rudder control cables were rigged as specified in any applicable Bombardier aircraft maintenance manual (AMM) revision earlier than the revision date shown in paragraphs (h)(2)(i) through (h)(2)(v) of this AD or the AMM revision date is unknown: Within 15 months after the effective date of this AD.

(i) Bombardier GL 700 AMM, Revision 67, dated August 6, 2015 (for Model BD-700-1A10 airplanes).

(ii) Bombardier GL XRS AMM, Revision 45, dated August 6, 2015 (for Model BD-700-1A10 airplanes).

(iii) Bombardier GL 6000 AMM, Revision 15, dated August 6, 2015 (for Model BD-700-1A10 airplanes).

(iv) Bombardier GL 5000 AMM, Revision 48, August 6, 2015 (for Model BD-700-1A11 airplanes).

(v) Bombardier GL 5000 GVFD AMM, Revision 15, August 6, 2015 (for Model BD-700-1A11 airplanes).

(3) For airplanes other than those identified in paragraphs (h)(1) and (h)(2) of this AD: Within 30 months since the date of issuance of the original Canadian airworthiness certificate or the date of issuance of the original Canadian export certificate of airworthiness, or within 30 days after the effective date of this AD, whichever occurs later.

(i) No Alternative Actions and Intervals

Except as provided by paragraph (h) of this AD, after the maintenance or inspection program has been revised as required by paragraph (g) of this AD, no alternative actions (e.g., inspections) or intervals may be used unless the actions or intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (j)(1) of this AD.

(j) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York 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 manager of 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.

(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.

(k) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2016-06 R1, dated July 25, 2016, 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-2016-9304.

(2) For more information about this AD, contact Cesar A. Gomez, 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 516-228-7318; fax 516-794-5531; email: Cesar.Gomez@faa.gov.

(l) 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) Temporary Revision (TR) 5-2-10, dated November 24, 2015, to Section 5-10-40, of Bombardier Global Express XRS BD-700 Time Limits/Maintenance Checks.

(ii) TR 5-2-15, dated November 24, 2015, to Section 5-10-40, of Bombardier Global 6000 GL 6000 Time Limits/Maintenance Checks.

(iii) TR 5-2-15, dated November 24, 2015, to Section 5-10-40, of Bombardier Global 5000 GL 5000 Featuring Global Vision Flight Deck—
Time Limits/Maintenance Checks.

(iv) TR 5-2-16, dated November 24, 2015, to Section 5-10-40, of Bombardier Global 5000 BD-700 Time Limits/Maintenance Checks.

(v) TR 5-2-47, dated November 24, 2015, to Section 5-10-40, of Bombardier Global Express BD-700 Time Limits/Maintenance Checks.

(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; Internet: <http://www.bombardier.com>. 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.

(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 June 29, 2017.

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