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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-1987; Directorate Identifier 2014-NM-240-AD; Amendment 39-18377; AD 2016-01-17]

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 CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes. This AD was prompted by reports of cracked forward door members of the inboard main landing gear (MLG) doors. This AD requires repetitive inspections of the inboard MLG doors, repairs if necessary, and replacement of the inboard MLG doors. This AD also provides optional terminating action for the door replacement. We are issuing this AD to prevent loss of an MLG door during flight, which could result in damage to the airplane.

DATES: This AD becomes effective February 25, 2016.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of February 25, 2016.

ADDRESSES: You may examine the AD docket on the Internet at <http://www.regulations.gov/#!docketDetail;D=FAA-2015-1987>; 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; 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-2015-1987.

FOR FURTHER INFORMATION CONTACT: Aziz Ahmed, Aerospace Engineer, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone 516-228-7329; 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 CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes. The NPRM published in the Federal Register on June 30, 2015 (80 FR 37200). The NPRM was prompted by reports of cracked forward door members of the inboard MLG doors. The NPRM proposed to require repetitive inspections of the inboard MLG doors, repairs if necessary, and replacement of the inboard MLG doors. The NPRM also proposed optional terminating action for the door replacement. We are issuing this AD to prevent loss of an MLG door during flight, which could result in damage to the airplane.

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2014-42, dated December 12, 2014 (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) airplanes. The MCAI states:

Cases of inboard MLG doors with cracked door forward members were found. A cracked inboard MLG door forward member could result in door departure from the aeroplane. Loss of an MLG door during flight could result in damage to the aeroplane and injury to persons on the ground.

This [Canadian] AD mandates the repetitive inspection [and corrective actions if necessary] and replacement of the inboard MLG doors.

The repetitive inspection is a detailed inspection for damage (including deformation, pulled or missing fasteners on the inner skins and outer skin, and cracks) on the inner skins, outer skin, and the forward member of the inboard MLG doors. Corrective actions include repairing, removing, or replacing the inboard MLG door.

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2015-1987-0002>.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comment received on the NPRM (80 FR 37200, June 30, 2015) and the FAA's response to the comment.

Request To Revise Repair Instructions

Envoy Airlines requested that we revise the wording in paragraph (i)(1)(ii)(A) of the proposed AD (80 FR 37200, June 30, 2015) to clarify that removal of the MLG door is not required in all repair situations. Envoy Airlines stated that Bombardier Service Bulletin 670BA-32-042, Revision A, dated July 2, 2014, including Appendixes A and B, both dated November 5, 2013, specifies that repairs can be accomplished with the door installed in some situations. Envoy Airlines suggested that

the text "Repair and reinstall the door" in paragraph (i)(1)(ii)(A) of the proposed AD be reworded to specify "repair the door."

We agree with the commenter's request to revise the repair instructions. We have revised paragraph (i)(1)(ii)(A) of this AD by removing the instructions to reinstall the door.

Clarification of Actions

We have clarified the inspection area in paragraph (g) of this AD by specifying to inspect for damage on the inner skins, outer skin, and the forward member of the inboard MLG doors.

Paragraph (i)(1)(ii)(A) of the proposed AD (80 FR 37200, June 30, 2015) specifies to do a repair "if repair of the inboard MLG is possible." We have revised paragraph (i)(1)(ii)(A) of this AD to clarify the repair is done if it is possible to repair the inboard MLG door in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-042, Revision A, dated July 2, 2014, including Appendixes A and B, both dated November 5, 2013.

We have also revised paragraph (i)(1)(i) of this AD to specify that clarify that removed damaged doors cannot be reinstalled, unless the door is repaired prior to reinstallation and the actions specified in paragraph (l) of this AD are done.

We have also clarified the actions required by paragraphs (i)(1)(iii), (i)(2), (k)(1), and (k)(2)(i) of this AD by specifying that where Bombardier Service Bulletin 670BA-32-043, Revision A, dated November 13, 2014, specifies to contact the manufacturer for certain instructions, this AD requires accomplishing those actions using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO.

We have also revised paragraph (m) of this AD to refer to the latest revision of Bombardier Service Bulletin 670BA-32-043, dated July 2, 2014. The "Pre SB Part Number" column of Section M, Relationship Chart, of Bombardier Service Bulletin 670BA-32-043, Revision A, dated November 13, 2014, is the same as that in Bombardier Service Bulletin 670BA-32-043, dated July 2, 2014.

Conclusion

We reviewed the relevant data, considered the comment 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 (80 FR 37200, June 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 37200, June 30, 2015).

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

Bombardier has issued the following service information.

- Bombardier Modification Summary Package IS670528200033, Revision A-2, dated October 11, 2005. This service information describes procedures for enlarging the forward and aft hinge cutouts of the MLG inboard and outboard doors.
- Bombardier Service Bulletin 670BA-32-040, Revision D, dated July 2, 2014, including Appendix A, Revision A, dated July 2, 2014, and Appendix B, Revision B, dated July 2, 2014. This service information describes procedures for increasing the clearances between the MLG fairing and the MLG doors.
- Bombardier Service Bulletin 670BA-32-040, Revision E, dated November 13, 2014, including Appendix A, Revision A, dated July 2, 2014, and Appendix B, Revision B, dated July 2, 2014.

This service information describes procedures for increasing the clearances between the MLG fairing and the MLG doors, and for enlarging the forward and aft hinge cutouts of the MLG inboard and outboard doors.

- Bombardier Service Bulletin 670BA-32-042, Revision A, dated July 2, 2014, including Appendixes A and B, both dated November 5, 2013. This service information describes procedures for inspecting and repairing the inboard MLG door inner skins, outer skin, and the forward member.
- Bombardier Service Bulletin 670BA-32-043, dated July 2, 2014; and Bombardier Service Bulletin 670BA-32-043, Revision A, dated November 13, 2014. This service information describes procedures for replacing the inboard MLG doors.

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 269 airplanes of U.S. registry.

We estimate that it will take about 16 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work hour. Required parts will cost about \$31,000 per product. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$8,704,840, or \$32,360 per product.

In addition, we estimate that any necessary follow-on actions will take up to 44 work-hours and require parts costing up to \$31,000, for a cost of up to \$34,740 per product. We have no way of determining the number of aircraft that might need these actions.

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-2015-1987>; 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):



2016-01-17 Bombardier, Inc.: Amendment 39-18377; Docket No. FAA-2015-1987; Directorate Identifier 2014-NM-240-AD.

(a) Effective Date

This AD becomes effective February 25, 2016.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc. Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, certificated in any category, serial numbers 10002 and subsequent, as identified in Bombardier Service Bulletin 670BA-32-042, Revision A, dated July 2, 2014, including Appendixes A and B, both dated November 5, 2013.

(d) Subject

Air Transport Association (ATA) of America Code 32, Landing Gear.

(e) Reason

This AD was prompted by reports of cracked forward door members of the inboard main landing gear (MLG) doors. We are issuing this AD to prevent loss of an MLG door during flight, which could result in damage to the airplane.

(f) Compliance

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

(g) Repetitive Inspections

Within 660 flight hours or 12 months after the effective date of this AD, whichever occurs first: Do a detailed inspection for damage (including deformation, pulled or missing fasteners on the inner skins and outer skin, and cracks) on the inner skins, outer skin, and the forward member of the inboard MLG doors, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-042, Revision A, dated July 2, 2014, including Appendixes A and B, both dated November 5, 2013. Repeat the inspection thereafter at intervals not to exceed 660 flight hours or 12 months, whichever occurs first.

(h) Detailed Inspection Definition

For the purposes of this AD, a detailed inspection is an intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirror, magnifying lenses, etc., may be necessary. Surface cleaning and elaborate procedures may be required.

(i) Corrective Actions

(1) If any damage is found on any inner skin or outer skin of the inboard MLG door during any inspection required by paragraph (g) of this AD: Before further flight, do the actions specified in paragraph (i)(1)(i), (i)(1)(ii), or (i)(1)(iii) of this AD.

(i) Remove the damaged inboard MLG door, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-042, Revision A, dated July 2, 2014, including Appendixes A and B, both dated November 5, 2013. A damaged inboard MLG door cannot be reinstalled, unless the repair specified in paragraph (i)(1)(ii) of this AD is done prior to reinstallation and the actions specified in paragraph (1) of this AD are done at the times specified in paragraph (1) of this AD.

(ii) Repair the door as specified in paragraph (i)(1)(ii)(A) or (i)(1)(ii)(B) of this AD, as applicable.

(A) If it is possible to repair the inboard MLG door in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-042, Revision A, dated July 2, 2014, including Appendixes A and B, both dated November 5, 2013: Repair the door, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-042, Revision A, dated July 2, 2014, including Appendixes A and B, both dated November 5, 2013.

(B) If it is not possible to repair the inboard MLG door in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-042, Revision A, dated July 2, 2014, including Appendixes A and B, both dated November 5, 2013: Repair using a method approved by the Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO).

(iii) Replace the inboard MLG door, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-043, Revision A, dated November 13, 2014, except, where Bombardier Service Bulletin 670BA-32-043, Revision A, dated November 13, 2014, specifies to contact the manufacturer for certain instructions, this AD requires accomplishing those actions using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO.

(2) If any damage is found on the forward member of the inboard MLG door during any inspection required by paragraph (g) of this AD: Before further flight, replace the inboard MLG door, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-043, Revision A, dated November 13, 2014, except, where Bombardier Service Bulletin 670BA-32-043, Revision A, dated November 13, 2014, specifies to contact the manufacturer for certain instructions, this AD requires accomplishing those actions using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO.

(j) Terminating Action

Within 6,600 flight hours or 36 months after the effective date of this AD, whichever occurs first, except as provided by paragraph (1) of this AD: Replace the inboard MLG doors, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-043, Revision A, dated November 13, 2014; except, where Bombardier Service Bulletin 670BA-32-043, Revision A, dated November 13, 2014, specifies to contact the manufacturer for certain instructions, this AD

requires accomplishing those actions using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO.

(1) Doing the MLG door replacement required by the introductory text of paragraph (j) of this AD terminates the inspections required by paragraph (g) of this AD for that MLG door.

(2) Doing the MLG door replacement required by the introductory text of paragraph (j) of this AD does not terminate the actions required by AD 2010-23-19, Amendment 39-16508 (75 FR 68695, November 9, 2010).

(k) Optional Actions for Compliance With Paragraph (j) of This AD

Doing any of the actions specified in paragraph (k)(1), (k)(2), (k)(3), or (k)(4) of this AD is acceptable for compliance with the requirements of paragraph (j) of this AD.

(1) Replacement of the inboard MLG door, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-043, Revision A, dated November 13, 2014, except, where Bombardier Service Bulletin 670BA-32-043, Revision A, dated November 13, 2014, specifies to contact the manufacturer for certain instructions, this AD requires accomplishing those actions using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO; and enlargement of the forward and aft hinge cutouts, in accordance with the procedures specified in Bombardier Modification Summary Package IS670528200033, Revision A-2, dated October 11, 2005.

(2) Installation of an inboard MLG door assembly with a part number listed in the "Post SB Part Number" column of Section M, Relationship Chart, of Bombardier Service Bulletin 670BA-32-043, dated July 2, 2014, in accordance with a method specified in paragraph (k)(2)(i) or (k)(2)(ii) of this AD.

(i) Do the installation in accordance with the Accomplishment instructions of Bombardier Service Bulletin 670BA-32-043, dated July 2, 2014; or Bombardier Service Bulletin 670BA-32-043, Revision A dated November 13, 2014; except, where Bombardier Service Bulletin 670BA-32-043, Revision A, dated November 13, 2014, specifies to contact the manufacturer for certain instructions, this AD requires accomplishing those actions using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO.

(ii) Do the installation using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO.

(3) Doing the actions specified in "PART C—Installation of the Inboard MLG Door Part Number CC670-10520-15 and Increase of the Clearance Between the Left MLG Inboard-Door and the MLG Fairing" and "PART D—Installation of the Inboard MLG Door Part Number CC670-10520-16 and Increase of the Clearance Between the Right MLG Inboard-Door and the MLG Fairing" of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-040, Revision E, dated November 13, 2014, including Appendix A, Revision A, dated July 2, 2014, and Appendix B, Revision B, dated July 2, 2014.

(4) Doing the actions specified in paragraphs (k)(4)(i) and (k)(4)(ii) of this AD.

(i) Doing the actions specified in "PART C—Installation of the Inboard MLG Door Part Number CC670-10520-15 and Increase of the Clearance Between the Left MLG Inboard-Door and the MLG Fairing" and "PART D—Installation of the Inboard MLG Door Part Number CC670-10520-16 and Increase of the Clearance Between the Right MLG Inboard-Door and the MLG Fairing" of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-040, Revision D, dated July 2, 2014, including Appendix A, Revision A, dated July 2, 2014, and Appendix B, Revision B, dated July 2, 2014.

(ii) Enlargement of the forward and aft hinge cutouts specified in Bombardier Modification Summary Package IS670528200033, Revision A-2, dated October 11, 2005.

(l) Optional Delay of MLG Door Replacement

If an MLG door is removed, the replacement required by paragraph (j) of this AD can be delayed until the MLG door is reinstalled. When the removed MLG door is reinstalled, the actions required by paragraph (j) of this AD must be done at the time specified in paragraph (j) of this AD.

(m) Parts Installation Prohibition

Upon completion of the actions specified in paragraph (j) or (k) of this AD, no person may install an inboard MLG door assembly with a part number listed in the "Pre SB Part Number" column of Section M, Relationship Chart, of Bombardier Service Bulletin 670BA-32-043, Revision A, dated November 13, 2014; on any airplane.

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

(o) 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.

(p) Related Information

Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2014-42, dated December 12, 2014, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2015-1987-0002>.

(q) 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 Modification Summary Package IS670528200033, Revision A-2, dated October 11, 2005.

(ii) Bombardier Service Bulletin 670BA-32-040, Revision D, dated July 2, 2014, including Appendix A, Revision A, dated July 2, 2014, and Appendix B, Revision B, dated July 2, 2014.

(iii) Bombardier Service Bulletin 670BA-32-040, Revision E, dated November 13, 2014, including Appendix A, Revision A, dated July 2, 2014, and Appendix B, Revision B, dated July 2, 2014.

(iv) Bombardier Service Bulletin 670BA-32-042, Revision A, dated July 2, 2014, including Appendixes A and B, both dated November 5, 2013.

(v) Bombardier Service Bulletin 670BA-32-043, dated July 2, 2014.

(vi) Bombardier Service Bulletin 670BA-32-043, Revision A, dated November 13, 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; 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 January 6, 2016.

Victor Wicklund,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.