



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-8847; Directorate Identifier 2016-NM-020-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-600-2E25 (Regional Jet Series 1000) airplanes. This proposed AD was prompted by reports of two cases where the main landing gear (MLG) failed to fully extend; it was determined that interference between the MLG door and the MLG fairing seal prevented the MLG door from opening fully. This proposed AD would require repetitive detailed inspections of the MLG fairing, fairing seal, door, and adjacent structures; and replacement or repair of affected parts and fasteners, or removal of the door, if necessary. This proposed AD would also require installation of a safety guide in the MLG fairing and an increase of the spacing between the MLG door and the fairing, which would terminate the repetitive inspections. We are proposing this AD to detect and correct interference between the MLG door and the MLG fairing seal. Such interference could result in a MLG failing to fully extend, which could cause an unsafe asymmetric landing configuration.

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; 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.

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-2016-8847; 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 proposed 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. Comments will be available in the AD docket shortly after receipt.

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:

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-2016-8847; Directorate Identifier 2016-NM-020 -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

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2015-30, dated January 13,

2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc. Model CL-600-2E25 (Regional Jet Series 1000) airplanes. The MCAI states:

Two cases of main landing gear (MLG) failure to fully extend have been reported on model CL-600-2C10/-2D15/-2D24 aeroplanes. Investigation determined that interference between the MLG door and the MLG fairing seal prevented the MLG door from opening.

Although model CL-600-2E25 aeroplanes feature new MLG door design, similar interference between the MLG door and the MLG fairing seal could exist on aeroplanes listed in the Applicability section of this [Canadian] AD. An MLG failing to extend may result in an unsafe asymmetric landing configuration.

This [Canadian] AD mandates the repetitive inspection and rectification, as required, of the MLG fairing and seal, MLG door, and adjacent structures, until the mandatory terminating action is completed.

The terminating action includes installation of a safety guide in the MLG fairing and an increase of the spacing between the MLG door and the fairing, which would terminate the repetitive inspections. 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-2016-8847.

Related Service Information under 1 CFR part 51

We reviewed Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013. The service information describes procedures for detailed inspections of the MLG fairing, fairing seal, door, and adjacent structures; replacement or repair of affected parts and fasteners and removal of the door. We have also reviewed Bombardier Service Bulletin

670BA-32-049, May 26, 2015. The service information describes procedures for installation of a safety guide in the MLG fairing and an increase of the spacing between the MLG door and the fairing.

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 40 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
Inspection and Installation	50 work-hours X \$85 per hour = \$4,250	\$0	\$4,250	\$170,000

We estimate the following costs to do any necessary replacements/removals that would be required based on the results of the proposed inspection. We have received no definitive data on the costs for the on-condition repairs that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need these replacements/removals/repairs:

On-condition costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Replacement of damaged fairing seal	6 work-hours X \$85 per hour = \$510 per seal replacement	\$921 per seal	\$1,431 per seal replacement	\$57,240 per seal replacement
Removal of MLG door	3 work-hours X \$85 per hour = \$255 per removal of MLG door	\$0	\$255 per removal of MLG door	\$10,200 per removal of MLG door

Optional actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Installation of MLG door	13 work-hours X \$85 per hour = \$1,105	\$0	\$1,105	\$44,200

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 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-2016-8847; Directorate Identifier

2016-NM-020-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 Bombardier, Inc. Model CL-600-2E25 (Regional Jet Series 1000) airplanes, certificated in any category, serial numbers 19002 through 19041.

(d) Subject

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

(e) Reason

This AD was prompted by reports of two cases where the main landing gear (MLG) failed to fully extend; it was determined that interference between the MLG door and the MLG fairing seal prevented the MLG door from opening fully. We are issuing this AD to detect and correct interference between the MLG door and the MLG fairing seal. Such interference could result in a MLG failing to fully extend, which could cause an unsafe asymmetric landing configuration.

(f) Compliance

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

(g) Inspection of MLG Fairing, Seal, Door, and Adjacent Structures

Within 660 flight hours after the effective date of this AD, conduct a detailed inspection for damage to the MLG fairing, fairing seal, door, and adjunct structures, and for missing parts and fasteners, in accordance with Part A of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013. Repeat the inspection thereafter at intervals not to exceed 660 flight hours until the installation required by paragraph (m) of this AD is done.

(h) Replacement of MLG Fairing Seal or Door Removal

If damage to the MLG fairing seal is found during any inspection required by paragraph (g) of this AD, before further flight, replace the seal, in accordance with Part B of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013; or remove the door, in accordance with Part C of the

Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013.

(i) Repair of the MLG Door or Door Removal

If damage to the MLG door 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 Aircraft Certification Office (ACO), ANE-170, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO); or remove the door, in accordance with Part C of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013.

(j) Repair of the MLG Fairing

If damage to the MLG fairing 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, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO.

(k) Repair of the Adjacent Structure and Other Corrective Actions

If damage to the adjacent structure is found or if any part or fastener is found missing or damaged during any inspection required by paragraph (g) of this AD, before further flight, do the applicable actions specified in paragraphs (k)(1) and (k)(2) of this AD.

(1) Replace missing or damaged parts and fasteners, in accordance with Part A of the Accomplishment Instruction of Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013, except where Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013, specifies to contact Bombardier, before further flight, repair using a

method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO.

(2) Repair damaged structure using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO.

(l) Reinstallation of the MLG Inboard Door

For any MLG inboard door that has been removed as specified in paragraph (g), (h), or (i) of this AD: Reinstallation of the door, if accomplished, must be done in accordance with Part D of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013. Before further flight after any reinstallation, the inspection required by paragraph (g) of this AD must be done and the inspection must be repeated thereafter at the times specified in paragraph (g) of this AD until the installation required by paragraph (m) of this AD is done.

(m) Installation of a Safety Guide on the MLG Fairing and Increase of Spacing between MLG Door and Fairing

Except as required by paragraph (n) of this AD: Within 6,600 flight hours or 36 months, whichever occurs first, after the effective date of this AD, install a safety guide on the MLG fairing and increase the spacing between the MLG door and the fairing, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-049, dated May 26, 2015. Accomplishment of these actions terminates the requirement of paragraph (g) of this AD.

(n) Provisions for Removed/Reinstalled Doors

If the MLG door has been removed in accordance with Part C of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-041, dated March 28, 2013, the installation required by paragraph (m) of this AD may be delayed

until the MLG door is reinstalled in accordance with paragraph (l) of this AD. When the removed MLG door is reinstalled, the installation required by paragraph (m) of this AD must be done at the time specified in paragraph (m) of this AD or before further flight after reinstallation of the removed MLG door, whichever occurs later.

(o) 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.

(p) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2015-30, dated January 13, 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-2016-8847.

(2) 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.

Issued in Renton, Washington, on August 18, 2016.

Dorr M. Anderson,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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