



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0367; Directorate Identifier 2012-NM-177-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-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, Model CL-600-2D15 (Regional Jet Series 705) airplanes, and Model CL-600-2D24 (Regional Jet Series 900) airplanes. This proposed AD was prompted by a report of corrosion of the components of the main landing gear (MLG) retraction actuator found in service; the corrosion was found at the interface of the rod end and the piston, and at the bracket and related pins. This proposed AD would require inspection of the MLG retraction actuator components; corrective actions if necessary; and, for certain retraction actuators, installation of a new jam nut. We are proposing this AD to prevent disconnection of the MLG retraction actuator, which could result in extension of the MLG without damping, and consequent structural damage and collapse of the MLG during landing.

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 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: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For Bombardier service information identified in this proposed 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>. For Goodrich service information identified in this proposed AD, contact Goodrich Corporation, Landing Gear, 1400 South Service Road, West Oakville L6L 5Y7, Ontario, Canada; telephone 905-825-1568; e-mail jean.breed@goodrich.com; Internet <http://www.goodrich.com/TechPubs>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. 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>; or in person at the Docket Operations office 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: Cesar Gomez, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 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 proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0367; Directorate Identifier 2012-NM-177-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-2011-36R1, dated October 3, 2012 (referred to after this as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

Corrosion of the main landing gear (MLG) retraction actuator components was found in-service, either at the interface of the rod end and the piston or at the bracket and its related pins. This can cause the MLG retraction actuator to disconnect, leading to an MLG extension without damping, and a potential for MLG structural damage and possible collapse during landing.

This [Canadian] AD mandates the inspection and rectification [corrective action] of the MLG retraction actuator components.

This revision is to mandate [, for certain MLG retraction actuators,] the installation of the new retraction actuator jam nut. This revision also corrects the background information and updates Service Bulletin (SB) references.

The required inspection includes, for certain MLG retraction actuator assemblies, a detailed inspection of the retraction actuator assembly for evidence of corrosion, and security of the jam nut; and, for certain MLG dressed shock struts, a detailed inspection for evidence of corrosion of the retract actuator bracket assembly, associated pins, and mating lugs on the outer cylinder and a detailed inspection of the associated pins for chrome damage. The corrective actions include replacing pins that have chrome damage or evidence of corrosion, replacing retraction actuator bracket assemblies and mating lugs

that have evidence of corrosion. You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

Bombardier, Inc. has issued the following service bulletins.

- Bombardier Service Bulletin 670BA-32-031, Revision C, dated

April 17, 2012.

- Bombardier Service Bulletin 670BA-32-033, Revision B, dated Jun 26, 2012.

Goodrich Corporation has issued the following service bulletins.

- Goodrich Service Bulletin 49000-32-46, Revision 2, dated

November 11, 2011.

- Goodrich Service Bulletin 49600-32-63, Revision 1, dated May 17, 2011.

- Goodrich Service Bulletin 49600-32-64, Revision 3, dated

December 15, 2011.

The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

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 the same type design.

Differences Between This Proposed AD and the MCAI or Service Information

The MCAI specifies using “later approved revisions” of the service information when accomplishing the requirements. However, “later approved revisions” must not be used in an AD when referring to the service document because doing so violates Office of the Federal Register (OFR) regulations for approval of materials “incorporated by reference” in rules. Therefore, we have not included “later approved revisions” in this proposed AD. If additional parts are identified in later revisions of the service information, we might consider further rulemaking then.

Goodrich Service Bulletin 49600-32-63, Revision 1, dated May 17, 2011, specifies to return retract actuators to Goodrich if corrosion is found or if a jam nut is not secured. However, this proposed AD would require replacing the retract actuators with new or serviceable retract actuators if those conditions are found.

Costs of Compliance

Based on the service information, we estimate that this proposed AD would affect about 391 products of U.S. registry. We also estimate that it would take up to 16 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Required parts would cost about \$1,018 per product. Where the service information lists required parts costs that are covered under warranty, we have assumed that there will be no charge for these parts. As we do not control warranty coverage for affected parties, some parties may incur costs higher than estimated here. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be up to \$929,798, or up to \$2,378 per product.

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed AD.

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.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

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 AD:

Bombardier, Inc.: Docket No. FAA-2013-0367; Directorate Identifier 2012-NM-177-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 airplanes specified 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 and subsequent.

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

(d) Subject

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

(e) Reason

This AD was prompted by a report of corrosion of the components of the main landing gear (MLG) retraction actuator found in service; the corrosion was found at the interface of the rod end and the piston, and at the bracket and related pins. We are issuing this AD to prevent disconnection of the MLG retraction actuator, which could result in extension of the MLG without damping, and consequent structural damage and collapse of the MLG during landing.

(f) Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

(g) Inspection of the MLG Retraction Actuator and Corrective Actions

For any airplane with a MLG retraction actuator assembly having any part number and serial number identified in paragraph 1.A., Effectivity, of Bombardier Service Bulletin 670BA-32-031, Revision C, dated April 17, 2012, except airplanes on which modification status “32-64” is marked on the identification plate: At the applicable time specified in paragraph (g)(1) or (g)(2) of this AD, perform a detailed inspection of the retraction actuator assembly for evidence of corrosion and security of the jam nut, as applicable, in accordance with Part A of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-031, Revision C, dated April 17, 2012; and Goodrich Service Bulletin 49600-32-63, Revision 1, dated May 17, 2011. If any corrosion or unsecured jam nut is found, before further flight, replace the retract actuator with a new or serviceable retract actuator; install the retract actuator in accordance with Part A of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-031, Revision C, dated April 17, 2012. Repeat the inspection at intervals not to exceed 1,200 flight hours or 12 months, whichever occurs first.

(1) For MLG retraction actuator assemblies on which, as of the effective date of this AD, 8,000 or more total flight hours have accumulated since new or since overhaul, or have been in service for more than 4 years since new or since overhaul: Inspect within 1,200 flight hours or 12 months after the effective date of this AD, whichever occurs first.

(2) For MLG retraction actuator assemblies on which, as of the effective date of this AD, less than 8,000 total flight hours have accumulated since new or since overhaul, and have been in service for 4 years or less since new or since overhaul: Inspect before

the accumulation of 9,200 total flight hours on the MLG retraction actuator assembly since new or since overhaul or within 5 years in service since new or since overhaul, whichever occurs first.

(h) Inspection of MLG Retraction Actuator Bracket and Related Pins, and Corrective Actions

For any airplane with a MLG dressed shock strut having any part number and serial number identified in paragraph 1.A., Effectivity, of Bombardier Service Bulletin 670BA-32-033, Revision B, dated June 26, 2012: Within 4,400 flight hours or 24 months after the effective date of this AD, whichever occurs first, perform a detailed inspection of the retract actuator bracket assembly, associated pins, and the mating lugs on the outer cylinder for evidence of corrosion, in accordance with Bombardier Service Bulletin 670BA-32-033, Revision B, dated June 26, 2012; and Goodrich Service Bulletin 49000-32-46, Revision 2, dated November 11, 2011. Do all applicable corrective actions before further flight (i.e., replace retract actuator bracket assembly and pins, or outer cylinder lugs, as applicable).

(i) Installation of New Jam Nut

For any airplane with a MLG retraction actuator assembly having any part number and serial number identified in paragraph 1.A., Effectivity, of Bombardier Service Bulletin 670BA-32-031, Revision C, dated April 17, 2012, except airplanes on which modification status “32-64” is marked on the identification plate: Within 20,000 flight hours or 10 years after the effective date of this AD, whichever occurs first, install a new jam nut having part number 49606-5, in accordance with Part B of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-031,

Revision C, dated April 17, 2012; and Goodrich Service Bulletin 49600-32-64, Revision 3, dated December 15, 2011.

(j) Credit for Previous Actions

(1) This paragraph provides credit for the actions required by paragraphs (g) and (i) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 670BA-32-031, dated March 14, 2011; Revision A, dated June 9, 2011; or Revision B, dated July 29, 2011; which are not incorporated by reference in this AD.

(2) This paragraph provides credit for the 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-32-033, dated March 14, 2011; or Revision A, dated July 29, 2011; which are not incorporated by reference in this AD.

(k) Parts Installation Limitations

(1) As of the effective date of this AD, no person may install on any airplane a MLG retraction actuator assembly having any part number and serial number identified in paragraph 1.A., Effectivity, of Bombardier Service Bulletin 670BA-32-031, Revision C, dated April 17, 2012, unless that retraction actuator assembly has been inspected as specified in paragraph (g) of this AD, and all applicable corrective actions (i.e., replacement of the retract actuator) specified in paragraph (g) of this AD have been done. Repeat the inspection specified in paragraph (g) of this AD thereafter at the intervals specified in paragraph (g) of this AD.

(2) As of the effective date of this AD, no person may install on any airplane a MLG retraction actuator assembly having any part number and serial number identified

in paragraph 1.A., Effectivity, of Bombardier Service Bulletin 670BA-32-033, Revision B, dated June 26, 2012, unless that retraction actuator assembly has been inspected and all applicable corrective actions have been done, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-32-033, Revision B, dated June 26, 2012.

(I) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (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, New York 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) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of

Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(m) Related Information

(1) Refer to mandatory continued airworthiness information (MCAI) Canadian Airworthiness Directive CF-2011-36R1, dated October 3, 2012, and the service bulletins specified in paragraphs (m)(1)(i) through (m)(1)(v) of this AD, for related information.

(i) Bombardier Service Bulletin 670BA-32-031, Revision C, dated April 17, 2012.

(ii) Bombardier Service Bulletin 670BA-32-033, Revision B, dated June 26, 2012.

(iii) Goodrich Service Bulletin 49000-32-46, Revision 2, dated November 11, 2011.

(iv) Goodrich Service Bulletin 49600-32-63, Revision 1, dated May 17, 2011.

(v) Goodrich Service Bulletin 49600-32-64, Revision 3, dated December 15, 2011.

(2) For Bombardier 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>. For Goodrich service information identified in this AD, contact Goodrich Corporation, Landing Gear, 1400 South Service Road, West Oakville L6L 5Y7, Ontario, Canada; telephone 905-825-1568; e-mail jean.breed@goodrich.com; Internet <http://www.goodrich.com/TechPubs>. You may review copies of the referenced service information at the FAA, Transport Airplane

Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on April 26, 2013.

Ali Bahrami,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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