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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2010-1109; Directorate Identifier 2010-NM-155-AD; Amendment 39-16597; AD 2011-03-13]

RIN 2120-AA64

Airworthiness Directives; 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

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

Rudder Travel Limiter (RTL) return spring, part number (P/N) E0650-069-2750S, failed prior to completion of the required endurance test. In addition, the replacement RTL return spring, P/N 670-93465-1 * * * was found to be susceptible to chafing on the primary actuator, which could also result in eventual dormant spring failure. There are two return springs in the RTL and if both springs failed, a subsequent mechanical disconnect of the RTL components would result in an unannounced failure of the RTL. This, in turn, would permit an increase of rudder authority beyond normal structural limits and, in the event of a strong rudder input, controllability of the aeroplane could be affected.

* * * * *

We are issuing this AD to require actions to correct the unsafe condition on these products.

DATES: This AD becomes effective March 14, 2011.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of March 14, 2011.

ADDRESSES: You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC.

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:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on November 10, 2010 (75 FR 69030). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

Rudder Travel Limiter (RTL) return spring, part number (P/N) E0650-069-2750S, failed prior to completion of the required endurance test. In addition, the replacement RTL return spring, P/N 670-93465-1 (see Note) was found to be susceptible to chafing on the primary actuator, which could also result in eventual dormant spring failure. There are two return springs in the RTL and if both springs failed, a subsequent mechanical disconnect of the RTL components would result in an unannounced failure of the RTL. This, in turn, would permit an increase of rudder authority beyond normal structural limits and, in the event of a strong rudder input, controllability of the aeroplane could be affected.

Note: RTL return springs, P/N 670-93465-1, were installed in production aeroplanes serial number 10266 (CL-600-2C10) and 15182 (CL-600-2D24) respectively and were introduced in-service by [Bombardier] Service Bulletin (SB) 670BA-27-047. SB 670BA-27-047 has since been superseded by [Bombardier] SB 670BA-27-055.

This directive mandates repetitive [detailed] inspection of the RTL [for broken] return springs and [damage through the casing, or chafing of the casing of the] primary actuator, with replacement of parts as necessary.

Corrective actions include replacing any broken return springs with new return springs, repairing any chafing of the primary actuator on its casing, and replacing any primary actuator that has damage through its casing with a new actuator. You may obtain further information by examining the MCAI in the AD docket.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed.

Differences Between This AD and the MCAI or Service Information

We have reviewed the MCAI and related service information and, in general, agree with their substance. But we might have found it necessary to use different words from those in the MCAI to ensure the AD is clear for U.S. operators and is enforceable. In making these changes, we do not intend to differ substantively from the information provided in the MCAI and related service information.

We might also have required different actions in this AD from those in the MCAI in order to follow our FAA policies. Any such differences are highlighted in a Note within the AD.

Costs of Compliance

We estimate that this AD will affect 477 products of U.S. registry. We also estimate that it will take 2 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$81,090, or \$170 per product.

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 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); and
3. 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 AD and placed it in the AD docket.

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 the 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.

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 AD:



2011-03-13 Bombardier, Inc.: Amendment 39-16597. Docket No. FAA-2010-1109; Directorate Identifier 2010-NM-155-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective March 14, 2011.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Bombardier, Inc. Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, serial numbers 10003 and subsequent; and Model CL-600-2D15 (Regional Jet Series 705) and Model CL-600-2D24 (Regional Jet Series 900) airplanes, serial numbers 15001 and subsequent; certificated in any category.

Subject

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

Reason

(e) The mandatory continuing airworthiness information (MCAI) states:

Rudder Travel Limiter (RTL) return spring, part number (P/N) E0650-069-2750S, failed prior to completion of the required endurance test. In addition, the replacement RTL return spring, P/N 670-93465-1 * * * was found to be susceptible to chafing on the primary actuator, which could also result in eventual dormant spring failure. There are two return springs in the RTL and if both springs failed, a subsequent mechanical disconnect of the RTL components would result in an unannounced failure of the RTL. This, in turn, would permit an increase of rudder authority beyond normal structural limits and, in the event of a strong rudder input, controllability of the aeroplane could be affected.

* * * * *

Compliance

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

Initial Inspections and Replacement/Repair

(g) For airplanes that have accumulated 4,000 or less total flight hours as of the effective date of this AD: Before the accumulation of 6,000 total flight hours, do a detailed inspection of the RTL for broken return springs and damage through the casing, or chafing of the casing of the primary actuator, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-27-055, Revision A, dated August 6, 2010. Before further flight, replace any broken return springs with new springs, and repair or replace with a new actuator any chafed or damaged primary actuator, as applicable, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-27-055, Revision A, dated August 6, 2010. Repeat the inspection thereafter at intervals not to exceed 6,000 flight hours.

(h) For airplanes that have accumulated more than 4,000 total flight hours as of the effective date of this AD: Within 2,000 flight hours after the effective date of this AD, do a detailed inspection of the RTL for broken return springs and damage through the casing, or chafing of the casing of the primary actuator, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-27-055, Revision A, dated August 6, 2010. Before further flight, replace any broken return springs with new springs, and repair or replace any chafed or damaged primary actuator with a new actuator, as applicable, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-27-055, Revision A, dated August 6, 2010. Repeat the inspection thereafter at intervals not to exceed 6,000 flight hours.

Credit for Actions Accomplished in Accordance With Previous Service Information

(i) Actions accomplished before the effective date of this AD in accordance with Bombardier Service Bulletin 670BA-27-055, dated May 11, 2010, are considered acceptable for compliance with the corresponding actions specified in this AD.

FAA AD Differences

Note 1: This AD differs from the MCAI and/or service information as follows: No differences.

Other FAA AD Provisions

(j) 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. Send information 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.

Related Information

(k) Refer to MCAI Canadian Airworthiness Directive CF-2010-18, dated June 16, 2010; and Bombardier Service Bulletin 670BA-27-055, Revision A, dated August 6, 2010; for related information.

Material Incorporated by Reference

(l) You must use Bombardier Service Bulletin 670BA-27-055, Revision A, dated August 6, 2010, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(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; e-mail thd.crj@aero.bombardier.com; Internet <http://www.bombardier.com>.

(3) You may review copies of the 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.

(4) You may also review copies of the 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/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on January 25, 2011.

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