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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0265; Directorate Identifier 2007-NM-349-AD; Amendment 39-15732; AD 2008-23-11]

RIN 2120-AA64

Airworthiness Directives; Bombardier Model CL-600-2B19 (Regional Jet Series 100 & 440) Airplanes

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

ACTION: Final rule.

SUMMARY: The FAA is superseding an existing airworthiness directive (AD), which applies to certain Bombardier Model CL-600-2B19 airplanes. That AD currently requires repetitive eddy current inspections for cracking of the main landing gear (MLG) main fittings, and replacement with new or serviceable MLG main fittings if necessary. The existing AD also currently requires servicing the MLG shock struts; inspecting the MLG shock struts for nitrogen pressure, visible chrome dimension, and oil leakage; and performing corrective actions, if necessary. For certain airplanes, this new AD requires replacement of the MLG main fittings with new improved MLG main fittings, which would terminate the repetitive inspections of the MLG main fittings and inspection and servicing of the MLG shock struts. This AD results from premature failure of the MLG main fittings. We are issuing this AD to prevent failure of the MLG main fittings, which could result in collapse of the MLG upon landing.

DATES: This AD becomes effective December 23, 2008.

On February 16, 2007 (72 FR 1430, January 12, 2007), the Director of the Federal Register approved the incorporation by reference of Bombardier Service Bulletin 601R-32-093, Revision B, dated July 14, 2005.

On June 13, 2003 (68 FR 31956, May 29, 2003), the Director of the Federal Register approved the incorporation by reference of Bombardier Alert Service Bulletin A601R-32-079, Revision 'E,' dated September 12, 2002; including Appendix 1, Revision 'D,' dated September 12, 2002; including Appendices 2 and 3, dated September 12, 2002.

ADDRESSES: For service information identified in this AD, contact Bombardier, Inc., Canadair, Aerospace Group, P.O. Box 6087, Station Centre-ville, Montreal, Quebec H3C 3G9, Canada.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; 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 address for the Docket Office (telephone 800-647-5527) is the Document 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: Pong K. Lee, Aerospace Engineer, Airframe and Propulsion Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7324; fax (516) 794-5531.

SUPPLEMENTARY INFORMATION:

Discussion

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that supersedes AD 2003-11-11, amendment 39-13170 (68 FR 31956, May 29, 2003). The existing AD applies to certain Bombardier Model CL-600-2B19 airplanes. That NPRM was published in the Federal Register on March 11, 2008 (73 FR 12901). That NPRM proposed to require replacement of the main landing gear (MLG) main fittings with new improved MLG main fittings, which would terminate the existing repetitive inspections of the MLG main fittings and inspection and servicing of the MLG shock struts.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the comments that have been received on the NPRM.

Request To Clarify Airplanes on Which the Replacement Is Required

Bombardier notes that the applicability in AD 2007-01-07 (specified in the NPRM as "Other Related Rulemaking") covers the entire fleet of Model CL-600-2B19 airplanes (serial number (S/N) 7003 through 7067 and 7069 through 8999 inclusive) since S/N 7068 is a hull loss and the airplane series ends at S/N 8999. Bombardier states that the applicability specified in the NPRM will not cover additional Model CL-600-2B19 airplanes. Bombardier adds that every Model CL-600-2B19 airplane equipped with a MLG main fitting having part number (P/N) 601R85001-3/4 (Messier-Dowty P/N 17064-101 through 104) will need to be in compliance with the replacement required by AD 2007-01-07 by May 16, 2008.

We infer that Bombardier requests that we clarify which airplanes are required to do the replacement specified in paragraph (r) of this AD. We agree that the airplanes affected by paragraph (r) of this AD should be further clarified. As stated by Bombardier, for Model CL-600-2B19 airplanes having S/N 7003 through 7067 and 7069 through 8999 inclusive, the replacement is already required in accordance with paragraph (l) of AD 2007-01-07. Therefore, we have changed paragraph (r) of this AD to specify that the replacement be accomplished only on airplanes having S/Ns 9000 and subsequent, which terminates the requirements of paragraphs (h) through (q) of this AD. We have also changed paragraph (t) of this AD to specify that, for the other airplanes on which the replacement required by paragraph (l) of AD 2007-01-07 has been accomplished, it terminates the requirements of paragraphs (h) through (q) of this AD.

We disagree with the commenter that the applicability in AD 2007-01-07 covers the entire fleet. In order to ensure that any future production airplanes, S/N 9000 and subsequent, meet the

compliance requirements of this AD, the replacement specified in paragraph (r) of this AD is necessary to address the identified unsafe condition. We have also revised the Estimated Costs table in the preamble of this AD by changing the number of U.S.-registered airplanes required to do the replacement from 618 to 0.

Request To Change Compliance Time

Bombardier Aerospace asks that we change the compliance time specified in the NPRM. Bombardier states that AD 2007-01-07 (under "Related Rulemaking" in the NPRM) is effective for the same parts and also mandates incorporation of Bombardier Service Bulletin 601R-32-093, Revision B, dated July 14, 2005. Bombardier notes that AD 2007-01-07 was effective on February 16, 2007, and its compliance date is May 16, 2008. Bombardier adds that this compliance date is 9 months later than the date agreed to by Messier-Dowty, Bombardier Aerospace, and Transport Canada, based on careful consideration of fleet safety, MLG capability/logistics, and operator overhaul facilities capacity. Bombardier asks that the compliance time be the same as the time in AD 2007-01-07 (i.e., no later than May 16, 2008). Bombardier considers that different compliance dates for the same service bulletin will create confusion among U.S. operators and unnecessary burden for all parties involved.

We do not agree with the commenter. As stated previously, the new requirements in this AD apply only to airplanes having S/Ns 9000 and subsequent. Therefore, we have made no change to the AD in this regard.

Conclusion

We have carefully reviewed the available data, including the comments that have been received, and determined that air safety and the public interest require adopting the AD with the changes described previously. We have determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Costs of Compliance

The following table provides the estimated costs, at an average labor rate of \$80 per work hour, for U.S. operators to comply with this AD. Due to other existing ADs, the actions have already been accomplished on the majority of affected U.S.-registered airplanes; therefore, the estimated costs will be significantly less than those specified in the table.

Estimated Costs					
Action	Work hours	Parts	Cost per airplane	Number of U.S.-registered airplanes	Fleet cost
Detailed inspection (required by AD 2003-11-11)	1	None	\$80, per inspection cycle	618	\$49,440, per inspection cycle
Eddy current inspection (required by AD 2003-11-11)	1	None	\$80, per inspection cycle	618	\$49,440, per inspection cycle
Fluorescent penetrant inspection (required by AD 2003-11-11)	1	None	\$80, per inspection cycle	618	\$49,440, per inspection cycle

Inspection and servicing of shock struts (required by AD 2003-11-11)	2	None	\$160, per inspection cycle	618	\$98,880, per inspection cycle
Replacement (new action)	56	Up to \$35,000	Up to \$39,480	0	\$0

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 have 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 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. See the ADDRESSES section for a location to examine the regulatory evaluation.

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 Federal Aviation Administration (FAA) amends § 39.13 by removing amendment 39-13170 (68 FR 31956, May 29, 2003) and by adding the following new airworthiness directive (AD):



2008-23-11 Bombardier, Inc. (Formerly Canadair): Amendment 39-15732. Docket No. FAA-2008-0265; Directorate Identifier 2007-NM-349-AD.

Effective Date

(a) This AD becomes effective December 23, 2008.

Affected ADs

(b) This AD supersedes AD 2003-11-11.

Applicability

(c) This AD applies to Bombardier Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes, certificated in any category; having serial numbers (S/Ns) 7003 and subsequent, equipped with main landing gear (MLG) main fittings having part numbers (P/Ns) 601R85001-3 and -4 (Messier-Dowty P/Ns 17064-101, -102, -103, and -104).

Unsafe Condition

(d) This AD results from premature failure of the MLG main fittings. We are issuing this AD to prevent failure of the MLG main fittings, which could result in collapse of the MLG upon landing.

Compliance

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

Note 1: Where there are differences between the referenced service bulletin and the AD, the AD prevails.

Restatement of Requirements of AD 2003-11-11

Service Bulletin References

(f) Accomplishment of the inspections and servicing, as applicable, specified in paragraphs (h), (l), (m), and (n) of this AD, per Bombardier Alert Service Bulletin A601R-32-079, dated December 3, 1999; Revision 'A,' dated January 7, 2000; Revision 'B,' dated June 1, 2000; Revision 'C,' dated October 26, 2000; or Revision 'D,' dated December 1, 2000; prior to June 13, 2003 (the effective date of AD 2003-11-11), is considered acceptable for compliance with the requirements of paragraphs (h), (l), (m), and (n) of this AD.

(g) The term "service bulletin," as used in paragraphs (h) through (q) of this AD, means the Accomplishment Instructions of Bombardier Alert Service Bulletin A601R-32-079, Revision 'E,'

dated September 12, 2002; including Appendix 1, Revision 'D,' dated September 12, 2002; including Appendices 2 and 3, dated September 12, 2002.

Initial Eddy Current Inspection

(h) Perform an eddy current inspection to detect cracking of the MLG main fittings, per PART B of the service bulletin, at the earlier of the times specified in paragraph (h)(1) or (h)(2) of this AD.

(1) Prior to the accumulation of 1,500 total flight cycles on the MLG, or within 150 flight cycles after December 4, 2001 (the effective date of AD 2001-22-09, amendment 39-12488, which was superseded by AD 2003-11-11), whichever occurs later.

(2) Prior to the accumulation of 1,000 total flight cycles on the MLG, or within 150 flight cycles after June 13, 2003, whichever occurs later.

Repetitive Eddy Current Inspections

(i) Repeat the eddy current inspection specified in paragraph (h) of this AD at the time specified in paragraph (i)(1), (i)(2), or (i)(3), as applicable, except as provided by paragraph (i)(4) of this AD, per PART B of the service bulletin.

(1) For airplanes on which the eddy current inspection required by paragraph (h) of this AD is accomplished after June 13, 2003: Repeat the inspection at intervals not to exceed 500 flight cycles.

(2) For airplanes on which the repetitive eddy current inspection required by AD 2001-22-09 has been accomplished, and on which the repetitive intervals have been increased per paragraph (j) of AD 2001-22-09 before June 13, 2003: Repeat the inspection within 500 flight cycles after June 13, 2003, or within 1,000 flight cycles since the last eddy current inspection, whichever occurs first, and thereafter at intervals not to exceed 500 flight cycles.

(3) For airplanes on which the repetitive eddy current inspection required by AD 2001-22-09 has been accomplished, and on which the repetitive intervals have not been increased per paragraph (j) of AD 2001-22-09 before June 13, 2003: Repeat the eddy current inspection at intervals not to exceed 500 flight cycles.

(4) For airplanes on which an eddy current inspection has been accomplished to confirm the detailed inspection required by paragraph (o) of this AD: The next eddy current inspection must be done within 500 flight cycles following the last detailed inspection required by paragraph (o) of this AD, and thereafter at intervals not to exceed 500 flight cycles.

Corrective Actions

(j) If no cracking of the MLG main fittings is suspected during the next eddy current inspection required by paragraph (h) or (i) of this AD, but the paint has been removed: Prior to further flight, apply a new finish and install the harness clamp on the brake line with the bolt, washers, nut, and cotter pin; per PART B of the service bulletin.

(k) If any cracking of the MLG main fittings is found during any eddy current inspection required by paragraph (h) or (i) of this AD: Prior to further flight, replace any cracked MLG main fitting with a new or serviceable part per the service bulletin.

Servicing the Shock Struts

(l) Prior to the accumulation of 1,500 total flight cycles on the MLG shock struts, or within 500 flight cycles after December 4, 2001, whichever occurs later: Service (Oil and Nitrogen) the left and right MLG shock struts per PART C (for airplanes on the ground) or PART D (for airplanes on jacks) of the service bulletin.

Other Inspections

(m) Within 500 flight cycles after completing the actions required by paragraph (l) of this AD: Inspect the MLG left and right shock struts for nitrogen pressure, visible chrome dimension, and oil leakage, in accordance with PART E of the service bulletin. Thereafter, repeat the inspection at intervals not to exceed 500 flight cycles.

Corrective Actions for Certain Inspections

(n) If the chrome extension dimension of the shock strut pressure reading is outside the limits specified in the Airplane Maintenance Manual, Task 32-11-05-220-801, or any oil leakage is found during any inspection required by paragraph (m) of this AD: Prior to further flight, service the MLG shock strut in accordance with PART C (for airplanes on the ground) or PART D (for airplanes on jacks) of the service bulletin.

Detailed and Follow-On Inspections and Corrective Action

(o) Prior to the accumulation of 1,000 total flight cycles on the MLG, or within 250 flight cycles after June 13, 2003, whichever occurs later: Accomplish a detailed inspection of the MLG main fittings to detect signs of cracking (including linear paint cracks along the circumference of the main fitting tube, lack of paint (paint peeling) or other paint damage, lack of adhesion or paint bulging, and signs of corrosion), per PART A of the service bulletin. Repeat the inspection thereafter at intervals not to exceed 100 flight cycles.

Note 2: For the purposes of this AD, a detailed inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

(p) If any linear paint crack along the circumference of the main fitting tube, lack of paint (paint peeling) or other paint damage, evidence of paint bulging due to lack of adhesion, or evidence of corrosion is found during any inspection required by paragraph (o) of this AD: Prior to further flight, accomplish either an eddy current inspection to detect cracking, per PART B of the service bulletin; or a fluorescent penetrant inspection to detect cracking, per PART F of the service bulletin.

(1) If no cracking of the MLG main fittings is found during any inspection required by paragraph (p) of this AD: Prior to further flight, repaint and/or repair/rework any paint damage per PART B of the service bulletin.

(2) If any cracking of the MLG main fittings is found during any inspection required by paragraph (p) of this AD: Prior to further flight, replace any cracked MLG main fitting with a new or serviceable part per the service bulletin.

Reporting Requirement

(q) Within 30 days after each inspection and servicing required by paragraphs (h), (i), (l), (m), (o), and (p) of this AD, report all findings, positive or negative, to: Bombardier Aerospace, In-Service Engineering, fax number 514-855-8501. Although the service bulletin references completion of a "Service Bulletin Comment Sheet-Facsimile Reply Sheet," this AD does not require that action. Information collection requirements contained in this regulation have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.) and have been assigned OMB Control Number 2120-0056.

New Requirements of This AD

Replacement

(r) For airplanes having serial numbers 9000 and subsequent: Within 6 months after the effective date of this AD, replace the MLG main fittings with new improved MLG main fittings, in accordance with Bombardier Service Bulletin 601R-32-093, Revision 'B,' dated July 14, 2005. Replacing the MLG main fittings terminates the requirements of paragraphs (h) through (q) of this AD.

Credit for Actions Done According to Previous Issues of the Service Bulletin

(s) Replacements done before the effective date of this AD in accordance with Bombardier Service Bulletin 601R-32-093, dated October 17, 2003; or Revision 'A,' dated September 21, 2004; are acceptable for compliance with the requirements of paragraph (r) of this AD.

Credit for AD 2007-01-07

(t) For airplanes having S/Ns 7003 through 7067 inclusive and S/Ns 7069 through 8999 inclusive, equipped with MLG main fittings having P/N 601R85001-3 or -4 (Messier-Dowty P/N 17064-101, -102, -103, or -104): Accomplishing the replacement required by paragraph (l) of AD 2007-01-07, amendment 39-14879, terminates the requirements of paragraphs (h) through (q) of this AD.

Alternative Methods of Compliance (AMOCs)

(u)(1) The Manager, New York Aircraft Certification Office (ACO), 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: Pong K. Lee, Aerospace Engineer, Airframe and Propulsion Branch, ANE-171, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7324; fax (516) 794-5531. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) AMOCs issued to allow escalation of the repetitive intervals for the eddy current inspections from 500 to 1,000 flight cycles in accordance with paragraph (e) of AD 2001-22-09 are not approved as AMOCs with this AD.

Note 3: Information concerning the existence of AMOCs with this AD, if any, may be obtained from the New York ACO.

Related Information

(v) Canadian airworthiness directive CF-1999-32R3, dated September 21, 2005, also addresses the subject of this AD.

Material Incorporated by Reference

(w) You must use Bombardier Service Bulletin 601R-32-093, Revision 'B,' dated July 14, 2005; and Bombardier Alert Service Bulletin A601R-32-079, Revision 'E,' dated September 12, 2002; including Appendix 1, Revision 'D,' dated September 12, 2002; including Appendices 2 and 3, dated September 12, 2002; as applicable; to perform the actions that are required by this AD, unless the AD specifies otherwise.

(1) On February 16, 2007 (72 FR 1430, January 12, 2007), the Director of the Federal Register approved the incorporation by reference of Bombardier Service Bulletin 601R-32-093, Revision 'B,' dated July 14, 2005.

(2) On June 13, 2003 (68 FR 31956, May 29, 2003), the Director of the Federal Register approved the incorporation by reference of Bombardier Alert Service Bulletin A601R-32-079, Revision 'E,' dated September 12, 2002; including Appendix 1, Revision 'D,' dated September 12, 2002; including Appendices 2 and 3, dated September 12, 2002.

(3) 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> for a copy of this service information. You may review copies at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or 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 November 4, 2008.

Stephen P. Boyd,
Assistant Manager, Transport Airplane Directorate,
Aircraft Certification Service.