



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0530; Directorate Identifier 2017-NM-012-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 supersede Airworthiness Directive (AD) 2016-11-02, which applies to all Bombardier, Inc., Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes; Model CL-600-2D15 (Regional Jet Series 705) airplanes; Model CL-600-2D24 (Regional Jet Series 900) airplanes; and Model CL-600-2E25 (Regional Jet Series 1000) airplanes. AD 2016-11-02 requires repetitive inspections of the upper and lower engine pylons for protruding, loose, or missing fasteners; and repair if necessary. Since we issued AD 2016-11-02, we have determined that a terminating action is necessary to address the unsafe condition. This proposed AD would continue to require the repetitive inspections of the upper and lower engine pylons for protruding, loose, or missing fasteners; and repair if necessary. This proposed AD would also require replacement of affected fasteners, which terminates the inspections. We are proposing this AD to address the unsafe condition on these products.

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-2017-0530; 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: Aziz Ahmed, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7329; 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-2017-0530; Directorate Identifier 2017-NM-012-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

On May 17, 2016, we issued AD 2016-11-02, Amendment 39-18529 (81 FR 33371, May 26, 2016) (“AD 2016-11-02”), for all Bombardier, Inc., Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes; Model CL-600-2D15 (Regional Jet Series 705) airplanes; Model CL-600-2D24 (Regional Jet Series 900) airplanes; and Model CL-600-2E25 (Regional Jet Series 1000) airplanes. AD 2016-11-02 was prompted by reports of loose or missing fasteners on the upper and lower engine pylon structure common to the upper and lower pylon skin panels and engine thrust fitting. AD 2016-11-02 requires repetitive detailed visual inspections of the upper and lower engine pylons for protruding, loose, or missing fasteners; and repair, including applicable related investigative and corrective actions, if necessary. We issued AD 2016-11-02 to detect and correct protruding, loose, or missing fasteners, which could result in structural failure of the engine pylons.

Since we issued AD 2016-11-02, we have determined that a terminating action is necessary to address the unsafe condition. In addition, Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2016-10R1, dated July 8, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Bombardier, Inc., Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes; Model CL-600-2D15 (Regional Jet Series 705) airplanes; Model CL-600-2D24 (Regional Jet Series 900) airplanes; and Model CL-600-2E25 (Regional Jet Series 1000) airplanes. The MCAI states:

There have been several reported findings of loose or missing Hi-Lite fasteners and collars on the left hand (L/H) and right hand (R/H) upper and lower engine pylon structure common to the upper and lower pylon skin panels and engine thrust fitting. Missing fasteners in these areas are shown to significantly reduce the safety margins and could result in a structural failure of the engine pylon.

Bombardier, as an interim corrective action issued a new Aircraft Maintenance Manual (AMM) task for detailed inspection of the engine pylon rib and skin fasteners to inspect for protruding, loose or missing fasteners and rectify any discrepancies noted in accordance with a Repair Engineering Order (REO). The original version of this [Canadian] AD, CF-2016-10, mandated the subject inspection and necessary rectification.

Bombardier has since issued Service Bulletin (SB) 670BA-54-007 to replace all affected fasteners with interference fit fasteners [including applicable related investigative and corrective actions], as terminating action for the mandated inspection requirement. [Canadian] AD CF-2016-10 is now being revised to mandate compliance with SB 670BA-54-007.

Related investigative actions include measurements of the attach holes in the engine pylon upper structure and special detailed visual inspections for cracks in the engine pylon structure. Corrective actions include repair. 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-2017-0530.

Related Service Information under 1 CFR part 51

Bombardier, Inc., issued Service Bulletin 670BA-54-007, dated May 13, 2016.

The service information describes procedures for replacing fasteners and collars, including applicable related investigative and corrective actions.

Bombardier, Inc., also issued Repair Engineering Order 670-54-51-034, “Repair for Missing or Loose/Protruding Fasteners in Upper and Lower Pylon Skins FS 1088 - FS 1098, PBL 69.3 L & RHS,” Revision A, dated April 20, 2016. The service information describes procedures for repair, including applicable related investigative and corrective actions.

In addition, Bombardier, Inc., issued Temporary Revision 54-0007, dated March 8, 2016, to the CRJ700/900/1000 AMM. The service information describes procedures for a detailed visual inspection for protruding, loose, or missing fasteners of the left-hand and right-hand upper and lower engine pylons.

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 273 airplanes of U.S. registry.

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection (retained from AD 2016-11-02)	1 work-hour X \$85 per hour = \$85 per inspection cycle	\$0	\$85 per inspection cycle	\$23,205 per inspection cycle
Replacement (new action)	43 work-hours X \$85 per hour = \$3,655 per inspection cycle	\$1,808	\$5,463 per inspection cycle	\$1,491,399 per inspection cycle

We estimate the following costs to do any necessary repairs that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need these repairs:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Repair (retained from AD 2016-11-02)	Up to 32 work- hours X \$85 per hour = \$2,720	¹	Up to \$2,720

¹ We have received no definitive data that would enable us to provide cost estimates for the parts cost specified in this proposed AD for the on-condition repairs.

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 removing Airworthiness Directive (AD) 2016-11-02, Amendment 39-18529 (81 FR 33371, May 26, 2016), and adding the following new AD:

Bombardier, Inc.: Docket No. FAA-2017-0530; Directorate Identifier 2017-NM-012-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

This AD replaces AD 2016-11-02, Amendment 39-18529 (81 FR 33371, May 26, 2016) (“AD 2016-11-02”).

(c) Applicability

This AD applies to the airplanes identified in paragraphs (c)(1) through (c)(4) of this AD, certificated in any category.

(1) Bombardier, Inc., Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, serial numbers (S/Ns) 10002 through 10344, inclusive.

(2) Bombardier, Inc., Model CL-600-2D15 (Regional Jet Series 705) airplanes, S/Ns 15001 through 15388 inclusive, 15391, 15392, and 15395.

(3) Bombardier, Inc., Model CL-600-2D24 (Regional Jet Series 900) airplanes, S/Ns 15001 through 15388 inclusive, 15391, 15392, and 15395.

(4) Bombardier, Inc., Model CL-600-2E25 (Regional Jet Series 1000) airplanes, S/Ns 19001 through 19044 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 54, Nacelles/Pylons.

(e) Reason

This AD was prompted by reports of loose or missing fasteners and collars on the upper and lower engine pylon structure common to the upper and lower pylon skin panels and engine thrust fitting. We are issuing this AD to prevent protruding, loose, or missing fasteners, which could result in structural failure of the engine pylons.

(f) Compliance

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

(g) Retained Inspection, with a Reference to Terminating Action

This paragraph restates the requirements of paragraph (g) of AD 2016-11-02, with a reference to new terminating action. At the applicable time specified in paragraph (g)(1) or (g)(2) of this AD: Do a detailed visual inspection for protruding, loose, or missing fasteners of the upper and lower engine pylons, in accordance with Bombardier Temporary Revision (TR) 54-0007, dated March 8, 2016, to the CRJ700/900/1000 Aircraft Maintenance Manual. Repeat the inspection thereafter at intervals not to exceed 1,500 flight hours. Accomplishment of the replacement required by paragraph (j) of this AD is terminating action for the inspections required by this paragraph.

(1) For airplanes that have accumulated more than 840 total flight hours as of June 10, 2016 (the effective date of AD 2016-11-02): Inspect within 660 flight hours or 3 months, whichever occurs first, after June 10, 2016.

(2) For airplanes that have accumulated 840 total flight hours or less as of June 10, 2016 (the effective date of AD 2016-11-02): Inspect before the accumulation of 1,500 total flight hours.

(h) Retained Repair, with New Service Information

This paragraph restates the requirements of paragraph (h) of AD 2016-11-02, with new service information. If any protruding, loose, or missing fastener is found during any inspection required by paragraph (g) of this AD, before further flight, repair, including applicable related investigative and corrective actions, in accordance with Bombardier

Repair Engineering Order (REO) 670-54-51-034, “Repair for Missing or Loose/Protruding Fasteners in Upper and Lower Pylon Skins FS 1088 - FS 1098, PBL 69.3 L & RHS,” dated March 7, 2016, or Revision A, dated April 20, 2016; except where Bombardier REO 670-54-51-034, “Repair for Missing or loose/Protruding Fasteners in Upper and Lower Pylon Skins FS 1088 – FS 1098, PBL 69.3 L & RHS,” dated March 7, 2016; or Revision A, dated April 20, 2016; specifies to contact Bombardier for further instruction, before further flight, repair using a method approved by the Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA; or TCCA; or Bombardier, Inc.’s TCCA Design Approval Organization (DAO). As of the effective date of this AD, use Bombardier REO 670-54-51-034, “Repair for Missing or Loose/Protruding Fasteners in Upper and Lower Pylon Skins FS 1088 - FS 1098, PBL 69.3 L & RHS,” Revision A, dated April 20, 2016, for the actions required by this paragraph.

(i) Retained Credit for Previous Actions, with No Changes

This paragraph restates paragraph (i) of AD 2016-11-02, with no changes. This paragraph provides credit only for the initial inspection specified in paragraph (g) of this AD, if that action was performed before June 10, 2016 (the effective date of AD 2016-11-02) using Bombardier Reference Instruction Letter 4212, dated December 23, 2015; or Bombardier Reference Instruction Letter 4212A, Revision A, dated January 28, 2016.

(j) New Requirements of this AD: Fastener and Collar Replacement

Within 12,600 flight hours or 72 months after the effective date of this AD, whichever occurs first: Replace affected fasteners and collars, including doing all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-54-007, dated May 13, 2016. Where Bombardier Service Bulletin 670BA-54-007, dated May 13, 2016, specifies to contact Bombardier for appropriate action: Before further flight, accomplish the applicable corrective action in accordance with the procedures specified in paragraph (m)(2) of this AD.

(k) Terminating Action for the Introductory Text to Paragraph (g) of this AD

Accomplishing the replacement required by paragraph (j) of this AD constitutes terminating action for the inspections required by the introductory text to paragraph (g) of this AD.

(l) Credit for Previous Actions

This paragraph provides credit for the actions specified in paragraph (j) of this AD, if that action was performed before the effective date of this AD using Bombardier REO 670-54-51-035, “Permanent Repair for Clearance Fit Installed (-8) Size Fasteners in Upper and Lower Pylon Skins FS 1088 - FS 1098, PBL 69.3 L & RHS & Terminating Action for GREO 670-54-51-034,” dated April 20, 2016.

(m) 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: the 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.

(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 Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA DAO. If approved by the DAO, the approval must include the DAO-authorized signature.

(n) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2016-10R1, dated July 8, 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-2017-0530.

(2) For more information about this AD, contact Aziz Ahmed, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7329; fax 516-794-5531.

(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>. 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 May 24, 2017.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.
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