



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0104; Product Identifier 2019-NM-210-AD; Amendment 39-19923; AD 2020-12-14]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc., Airplanes

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

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes. This AD was prompted by a report that the anti-fretting coating on the piston rods of certain ram air turbine (RAT) deployment actuators may have been incorrectly applied. This AD requires a review of airplane maintenance records or an inspection of the RAT deployment actuator to determine the serial number and, depending on the findings, replacement with an upgraded RAT deployment actuator. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, 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 <https://www.bombardier.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0104.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0104; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is 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: Thomas Niczky, Aerospace Engineer, Avionics and Electrical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7347; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian AD CF-2019-38, dated October 30, 2019 (also referred to as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes. You may examine the MCAI in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0104.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes. The NPRM published in the Federal Register on February 24, 2020 (85 FR 10346). The NPRM was prompted by a report that the anti-fretting coating on the piston rods of certain RAT deployment actuators may have been incorrectly applied. The NPRM proposed to require a review of airplane maintenance records or an inspection of the RAT deployment actuator to determine the serial number and, depending on the findings, replacement with an upgraded RAT deployment actuator. The FAA is issuing this AD to address incorrect application of the anti-fretting coating that may lead to galling of the piston rod over time, which could cause the unit to seize and fail to fully deploy. This condition which, if not corrected, could result in the inability to power essential systems in the event that other sources of power are also lost. See the MCAI for additional background information.

Comment

The FAA gave the public the opportunity to participate in developing this final rule. The following presents the comment received on the NPRM and the FAA's response.

Request to Require Testing of the Anti-fretting Coating in Lieu of Inspection

Paul Risenhoover questioned why the FAA doesn't require testing instead of the inspection of the anti-fretting coating on the piston rods of certain ram air turbine (RAT) deployment actuators. The commenter did not provide justification for his request.

The FAA infers that the commenter was requesting testing of the RAT deployment actuator in lieu of an inspection of the anti-fretting coating on the piston rods. The FAA disagrees with the commenter's request. This AD requires an inspection of the RAT deployment actuator to determine the serial number, not an inspection of the anti-fretting coating on the piston rods. If the inspection reveals the RAT deployment actuator is an older model, the actuator needs to be replaced, regardless of it passing any test. The older RAT deployment actuator models are susceptible to failure due to the anti-fretting coating not being applied correctly to the piston rods. Even if the RAT deployment actuator passed a test, it would still be susceptible to failure in the future. The FAA finds it necessary to issue this AD as proposed.

Conclusion

The FAA reviewed the relevant data, considered the comment received, and determined that air safety and the public interest require adopting this final rule as proposed, except for minor editorial changes. The FAA has determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

Related Service Information under 1 CFR Part 51

Bombardier has issued the following service information, which describes procedures for inspecting the RAT deployment actuator to identify the serial number and replacing certain RAT deployment actuators with upgraded parts. These documents are distinct since they apply to different airplane models with different configurations.

- Bombardier Service Bulletin 700-1A11-24-029, dated February 22, 2019.
- Bombardier Service Bulletin 700-24-090, dated February 22, 2019.
- Bombardier Service Bulletin 700-24-5015, dated February 22, 2019.
- Bombardier Service Bulletin 700-24-6015, dated February 22, 2019.

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.

Costs of Compliance

The FAA estimates that this AD affects 380 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required action

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
1 work-hour X \$85 per hour = \$85	\$0	\$85	\$32,300

Estimated costs of on-condition actions

Labor cost	Parts cost	Cost per product
5 work-hours X \$85 per hour = \$425	Up to \$41,006	Up to \$41,431

According to the manufacturer, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators. The FAA does not control warranty coverage for affected operators. As a result, the FAA has included all known costs in the cost estimate.

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.

The FAA is 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

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) Will not affect intrastate aviation in Alaska, 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.

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 airworthiness directive

(AD):

2020-12-14 Bombardier, Inc.: Amendment 39-19923; Docket No. FAA-2020-0104;

Product Identifier 2019-NM-210 AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes, certificated in any category, serial numbers 9002 through 9828 inclusive, 9830, 9832 through 9835 inclusive, 9840, 9854, 9855, and 9998.

(d) Subject

Air Transport Association (ATA) of America Code 24, Electrical power.

(e) Reason

This AD was prompted by a report that the anti-fretting coating on the piston rods of certain ram air turbine (RAT) deployment actuators may have been incorrectly applied. Incorrect application of this anti-fretting coating may lead to galling of the piston rod over time, which could cause the unit to seize and fail to fully deploy. The FAA is issuing this AD to address this condition which, if not corrected, could result in the inability to power essential systems in the event that other sources of power are also lost.

(f) Compliance

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

(g) Determine RAT Serial Number

Within 36 months after the effective date of this AD: Perform an inspection to determine the serial number of the RAT deployment actuator, having part number (P/N) BZ02001-01 (GL456-1301-1). A review of the airplane maintenance records is acceptable in lieu of this inspection, provided the serial number of the RAT deployment actuator can be conclusively determined from that review.

(1) If the serial number of the RAT deployment actuator is not listed in the table referred to in paragraph 2.B., Part A-Special Check, of the Accomplishment Instructions of the applicable Bombardier service information specified in figure 1 to paragraphs (g)(1) and (2), (h), and (i) of this AD, no further action is required by this AD.

Figure 1 to paragraphs (g)(1) and (2), (h), and (i) – Service Information

Airplane Model	Service Information
BD-700-1A10 airplanes having serial numbers 9002 through 9312 inclusive, 9314 through 9380 inclusive, and 9384 through 9429 inclusive	Bombardier Service Bulletin 700-24-090, dated February 22, 2019
BD-700-1A10 airplanes having serial numbers 9313, 9381, 9432 through 9828 inclusive, 9830, 9832 through 9835 inclusive, 9854, and 9855	Bombardier Service Bulletin 700-24-6015, dated February 22, 2019
BD-700-1A11 airplanes having serial numbers 9127 through 9383 inclusive, 9389 through 9400 inclusive, 9404 through 9431 inclusive, and 9998	Bombardier Service Bulletin 700-1A11-24-029, dated February 22, 2019
BD-700-1A11 airplanes having serial numbers 9386, 9401, and 9445 through 9840 inclusive	Bombardier Service Bulletin 700-24-5015, dated February 22, 2019

(2) If the serial number of the RAT deployment actuator is listed in the table referred to in paragraph 2.B., Part A-Special Check, of the Accomplishment Instructions of the applicable Bombardier service information specified in figure 1 to paragraphs (g)(1) and (2), (h), and (i) of this AD, do the replacement required by paragraph (h) of this AD.

(h) Replacement

If, during the inspection or records review required by paragraph (g) of this AD, any RAT deployment actuator is found to have an affected serial number: Within 36 months after the effective date of this AD, replace the RAT deployment actuator, having P/N BZ02001-01 (GL456-1301-1), with an upgraded part, in accordance with Paragraph

2.C., Part B-Modification, of the Accomplishment Instructions of the applicable Bombardier service information specified in figure 1 to paragraphs (g)(1) and (2), (h), and (i) of this AD.

(i) Parts Installation Prohibition

As of the effective date of this AD, no person may install on any airplane, a RAT deployment actuator having P/N BZ02001-01 (GL456-1301-1) with a serial number referred to in Paragraph 2.B., Part A-Special Check, of the Accomplishment Instructions, of the applicable Bombardier service information specified in figure 1 to paragraphs (g)(1) and (2), (h), and (i) of this AD.

(j) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, 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 manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 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 instructions from a manufacturer, the instructions must be accomplished using a method

approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include DAO-authorized signature.

(k) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2019-38, dated October 30, 2019, for related information. This MCAI may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0104.

(2) For more information about this AD, contact Thomas Niczky, Aerospace Engineer, Avionics and Electrical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7347; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov.

(l) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Bombardier Service Bulletin 700-1A11-24-029, dated February 22, 2019.

(ii) Bombardier Service Bulletin 700-24-090, dated February 22, 2019.

(iii) Bombardier Service Bulletin 700-24-5015, dated February 22, 2019.

(iv) Bombardier Service Bulletin 700-24-6015, dated February 22, 2019.

(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 <https://www.bombardier.com>.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this 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, email fedreg.legal@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on June 19, 2020.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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