



## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2023-1493; Project Identifier MCAI-2022-01105-T; Amendment 39-22569; AD 2023-20-10]

RIN 2120-AA64

#### Airworthiness Directives; Bombardier, Inc., Airplanes

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for certain Bombardier, Inc., Model BD-700-2A12 airplanes. This AD was prompted by a report that some of the multi-function spoiler (MFS) anti-rotation plates failed in-service due to a thin wall design. This AD requires replacing the MFS anti-rotation plates, inspecting the MFS anti-rotation plates for cracking and hinge bolts for evidence of rotation, accomplishing applicable corrective actions, and performing a functional test of the MFS control surfaces. 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 a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

## **ADDRESSES:**

*AD Docket:* You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1493; 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, the mandatory continuing airworthiness information (MCAI), 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.

### *Material Incorporated by Reference:*

- For service information identified in this final rule, contact Bombardier Business Aircraft Customer Response Center, 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-2999; email [ac.yul@aero.bombardier.com](mailto:ac.yul@aero.bombardier.com); website [bombardier.com](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 at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1493.

**FOR FURTHER INFORMATION CONTACT:** Yaser Osman, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email [9-avs-nyaco-cos@faa.gov](mailto:9-avs-nyaco-cos@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Background**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain serial-numbered Bombardier, Inc., Model BD-700-2A12 airplanes. The NPRM published in the *Federal Register* on July 14, 2023 (88 FR 45121). The NPRM was prompted by AD CF-2022-47R1, dated October 11,

2022, issued by Transport Canada, which is the aviation authority for Canada (referred to after this as “the MCAI”). The MCAI states that a report was received that some of the MFS anti-rotation plates failed in-service due to a thin wall design. The MFS anti-rotation plates were designed with overlapping tolerances on the inside and outside diameters, which allows for an extremely thin wall thickness once machined.

In the NPRM, the FAA proposed to require replacing the MFS anti-rotation plates, inspecting the MFS anti-rotation plates for cracking and hinge bolts for evidence of rotation, accomplishing applicable corrective actions, and performing a functional test of the MFS control surfaces. The FAA is issuing this AD to address MFS anti-rotation plate failures. The unsafe condition, if not addressed, could result in wear and failure of the inboard and outboard spoiler hinge pins, possibly resulting in a hinge no longer supporting the load, or unintended asymmetrical spoiler deployment, leading to reduced controllability of the airplane, or loss of control of the airplane.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1493.

## **Discussion of Final Airworthiness Directive**

### **Comments**

The FAA received no comments on the NPRM or on the determination of the cost to the public.

### **Conclusion**

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA

is issuing this AD to address the unsafe condition on this product. This AD is adopted as proposed in the NPRM.

### **Related Service Information under 1 CFR Part 51**

The FAA reviewed Bombardier Service Bulletin 700-27-7504, Revision 01, dated July 11, 2022. This service information specifies procedures for replacing the left and right MFS No. 1, MFS No. 2, and MFS No. 3 anti-rotation plate part number (P/N) G05770140-103 and P/N G05770160-101 with P/N G05770140-105. In addition, one of the procedural steps is to inspect the MFS anti-rotation plates for cracking and the hinge bolt for any evidence of rotation, and repair or replacement. This service information also specifies procedures for performing a functional test (stop-to-stop check) of the MFS control-surfaces.

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

#### **Estimated costs for required actions**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
3 work-hours X \$85 per hour = \$255	\$2,000	\$2,255	\$94,710

The FAA has received no definitive data on which to base the cost estimates for the on-condition repairs or replacements specified in this AD.

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

## **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.

## **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:

**2023-20-10 Bombardier, Inc.:** Amendment 39-22569; Docket No. FAA-2023-1493;

Project Identifier MCAI-2022-01105-T.

#### **(a) Effective Date**

This airworthiness directive (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-700-2A12 airplanes, certificated in any category, serial numbers 70006 through 70129 inclusive.

#### **(d) Subject**

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

#### **(e) Unsafe Condition**

This AD was prompted by a report that some of the multi-function spoiler (MFS) anti-rotation plates failed in-service due to a thin wall design. The FAA is issuing this AD to address MFS anti-rotation plate failures. The unsafe condition, if not addressed, could result in wear and failure of the inboard and outboard spoiler hinge pins, possibly resulting in a hinge no longer supporting the load, or unintended asymmetrical spoiler deployment, leading to reduced controllability of the airplane, or loss of control of the airplane.

**(f) Compliance**

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

**(g) Replacement and Inspection**

(1) Within 36 months after the effective date of this AD, replace the left and right MFS No. 1, MFS No. 2, and MFS No. 3 anti-rotation plate part number (P/N) G05770140-103 and P/N G05770160-101 with P/N G05770140-105, including inspecting the MFS anti-rotation plates for any cracking and the hinge bolts for any evidence of rotation, in accordance with Part 2.B. of the Accomplishment Instructions of Bombardier Service Bulletin 700-27-7504, Revision 01, dated July 11, 2022. If any cracking or evidence of rotation is found, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (i)(1) of this AD.

(2) Before further flight after accomplishing the actions specified in paragraph (g)(1) of this AD: Perform a functional test (stop-to-stop check) of the MFS control-surfaces in accordance with Step 2.C. (3) of the Accomplishment Instructions of Bombardier Service Bulletin 700-27-7504, Revision 01, dated July 11, 2022.

**(h) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 700-27-7504, dated March 2, 2022.

**(i) Additional AD Provisions**

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, International Validation 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 responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the International Validation

Branch, mail it to the address identified in paragraph (j)(2) of this AD. Information may be emailed to: 9-avs-nyaco-cos@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards 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, International Validation Branch, FAA; or Transport Canada or Bombardier, Inc.'s Transport Canada Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

**(j) Additional Information**

(1) Refer to Transport Canada AD CF-2022-47R1, dated October 11, 2022, for related information. This Transport Canada AD may be found in the AD docket at regulations.gov under Docket No. FAA-2023-1493.

(2) For more information about this AD, contact Yaser Osman, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (k)(3) and (4) of this AD

**(k) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference 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 700-27-7504, Revision 01, dated July 11, 2022.

(ii) [Reserved]

(3) For service information identified in this AD, contact Bombardier Business Aircraft Customer Response Center, 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-2999; email [ac.yul@aero.bombardier.com](mailto:ac.yul@aero.bombardier.com); website [bombardier.com](http://bombardier.com).

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th Street, 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 [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html).

Issued on October 4, 2023.

Victor Wicklund, Deputy Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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