[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-1661; Project Identifier MCAI-2022-00714-T; Amendment 39-22380; AD 2023-05-11]

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-700-1A10 and BD-700-1A11 airplanes. This AD was prompted by a report that in case of a flap, slat, or slat-flap failure in flight, resetting the slat flap control unit (SFCU) to clear the error using the airplane flight manual (AFM) could result in the stall protection computer (SPC) setting the low-speed cue to the most conservative stall advance mode. This AD requires revising the non-normal procedures section of the existing AFM to provide the flightcrew with procedures for addressing failure warnings in the slat and flap control systems. 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:

AD Docket: You may examine the AD docket at regulations.gov under Docket No. FAA-2022-1661; 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; website 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 under Docket No. FAA-2022-1661.

FOR FURTHER INFORMATION CONTACT: Elizabeth Dowling, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 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 Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes. The NPRM published in the *Federal Register* on January

13, 2023 (88 FR 2286). The NPRM was prompted by AD CF-2022-30, dated June 3, 2022, (referred to after this as the MCAI) issued by Transport Canada, which is the aviation authority for Canada. The MCAI states in case of a flap, slat, or slat-flap failure in flight, resetting the SFCU to clear the error using the AFM could result in the SPC setting the low-speed cue to the most conservative stall advance mode instead of that published in the AFM. This condition could result in unexpected stall warnings (aural and visual) as well as stick shaker activation during approach for a landing, increasing flightcrew workload during a critical phase of flight. The higher landing speed could consequently require a greater landing distance and possible diversion to a longer runway.

In the NPRM, the FAA proposed to require revising the non-normal procedures section of the existing AFM to provide the flightcrew with procedures for addressing failure warnings in the slat and flap control systems. The FAA is issuing this AD to address the unsafe condition on these products.

You may examine the MCAI in the AD docket at regulations.gov under Docket No. FAA-2022-1661.

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. Except for minor editorial changes, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Service Information under 1 CFR Part 51

The FAA reviewed the following Bombardier service information. This service information specifies procedures for revising the non-normal procedures section of the existing AFM to provide the flightcrew with procedures for addressing failure warnings in the slat and flap control systems. These documents are distinct since they apply to different airplane models.

- C. Flap Fail (Caution), D. Slat Fail (Caution), E. Slat-Flap Fail (Caution), and F. Slat Fault (Caution) or Flap Fault (Caution) or Slat-Flap Fault (Caution) procedures of the Slat and Flap Control System, Section 05-10, Flight Controls, Chapter 5 - Non Normal Procedure, of the Bombardier Global Express AFM, Publication No. CSP 700-1, Revision 112, dated May 19, 2022. (For obtaining the procedures for Bombardier Global Express AFM, Publication No. CSP 700-1, use Document Identification No. GL 700 AFM-1.)

- C. Flap Fail (Caution), D. Slat Fail (Caution), E. Slat-Flap Fail (Caution), and F. Slat Fault (Caution) or Flap Fault (Caution) or Slat-Flap Fault (Caution) procedures of the Slat and Flap Control System, Section 05-10, Flight Controls, Chapter 5 - Non Normal Procedure, of the Bombardier Global Express XRS AFM, Publication No. CSP 700-1A, Revision 112, dated May 19, 2022. (For obtaining the procedures for Bombardier Global Express XRS AFM, Publication No. CSP 700-1A, use Document Identification No. GL 700 AFM-1A.)

- C. Flap Fail (Caution), D. Slat Fail (Caution), E. Slat-Flap Fail (Caution), and F. Slat Fault (Caution) or Flap Fault (Caution) or Slat-Flap Fault (Caution) procedures of the Slat and Flap Control System, Section 05-10, Flight Controls, Chapter 5 - Non

Normal Procedure, of the Bombardier Global 5000 AFM, Publication No. CSP 700-5000-1, Revision 73, dated May 19, 2022. (For obtaining the procedures for Bombardier Global Express AFM, Publication No. CSP 700-5000-1, use Document Identification No. GL 5000 AFM.)

- C. Flap Fail (Caution), D. Slat Fail (Caution), E. Slat-Flap Fail (Caution), and F. Slat Fault (Caution) or Flap Fault (Caution) or Slat-Flap Fault (Caution) procedures of the Slat and Flap Control System, Section 05-10, Flight Controls, Chapter 5 - Non Normal Procedure, of the Bombardier Global 5000 AFM, Publication No. CSP 700-5000-1V, Revision 42, dated May 19, 2022. (For obtaining the procedures for Bombardier Global Express AFM, Publication No. CSP 700-5000-1V, use Document Identification No. GL 5000 GVFD AFM.)

- C. Flap Fail (Caution), D. Slat Fail (Caution), E. Slat-Flap Fail (Caution), and F. Slat Fault (Caution) or Flap Fault (Caution) or Slat-Flap Fault (Caution) procedures of the Slat and Flap Control System, Section 05-10, Flight Controls, Chapter 5 - Non Normal Procedure, of the Bombardier Global 5500 AFM, Publication No. CSP 700-5500-1, Revision 14, dated May 19, 2022. (For obtaining the procedures for Bombardier Global Express AFM, Publication No. CSP 700-5000-1V, use Document Identification No. GL 5500 AFM.)

- C. Flap Fail (Caution), D. Slat Fail (Caution), E. Slat-Flap Fail (Caution), and F. Slat Fault (Caution) or Flap Fault (Caution) or Slat-Flap Fault (Caution) procedures of the Slat and Flap Control System, Section 05-10, Flight Controls, Chapter 5 - Non Normal Procedure, of the Bombardier Global 6000 AFM, Publication No. CSP 700-1V, Revision 42, dated May 19, 2022. (For obtaining the procedures for Bombardier Global Express AFM, Publication No. CSP 700-1V, use Document Identification No. GL 6000 AFM.)

- C. Flap Fail (Caution), D. Slat Fail (Caution), E. Slat-Flap Fail (Caution), and F. Slat Fault (Caution) or Flap Fault (Caution) or Slat-Flap Fault (Caution) procedures of the Slat and Flap Control System, Section 05-10, Flight Controls, Chapter 5 - Non Normal Procedure, of the Bombardier Global 6500 AFM, Publication No. CSP 700-6500-1, Revision 14, dated May 19, 2022. (For obtaining the procedures for Bombardier Global Express AFM, Publication No. CSP 700-5000-1V, use Document Identification No. GL 6500 AFM.)

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

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
1 work-hour X $85 per hour = $85	$0	$85	$38,250

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:

2023-05-11 Bombardier, Inc.: Amendment 39-22380; Docket No. FAA-2022-1661; Project Identifier MCAI-2022-00714-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-700-1A10 and BD-700-1A11 airplanes, certificated in any category, having serial numbers 9001 through 9998 inclusive and 60001 through 60097 inclusive.

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by a report that in case of a flap, slat, or slat-flap failure in flight, resetting the slat flap control unit (SFCU) to clear the error using the airplane flight manual (AFM) could result in the stall protection computer (SPC) setting the low-speed cue to the most conservative stall advance mode. The FAA is issuing this AD to address a flap, slat, or slat-flap failure warning. The unsafe condition, if not addressed, could result in unexpected stall warnings (aural and visual) as well as stick shaker activation during approach for a landing, increasing flightcrew workload during a critical phase of flight. The higher landing speed could consequently require a greater landing distance and possible diversion to a longer runway.

(f) Compliance

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

(g) Revision of the Existing AFM

Within 30 days after the effective date of this AD: Revise the existing AFM to incorporate the information specified in the AFM sections of the applicable AFM revisions specified in figure 1 to paragraph (g) of this AD.

Figure 1 to paragraph (g) – *AFM References*

Bombardier Airplane Model (Marketing Designation)	**AFM**	**AFM Section**	**AFM Revision and Issue Date**
BD-700-1A10 (Global Express)	Bombardier Global Express AFM, Publication No. CSP 700-1[1]	C. Flap Fail (Caution), D. Slat Fail (Caution), E. Slat-Flap Fail (Caution), and F. Slat Fault (Caution) or Flap Fault (Caution) or Slat-Flap Fault (Caution) procedures of the Slat and Flap Control System, Section 05-10, Flight Controls, Chapter 5 - Non Normal Procedures	Revision 112, dated May 19, 2022
BD-700-1A10 (Global Express XRS)	Bombardier Global Express AFM, Publication No. CSP 700-1A[2]	C. Flap Fail (Caution), D. Slat Fail (Caution), E. Slat-Flap Fail (Caution), and F. Slat Fault (Caution) or Flap Fault (Caution) or Slat-Flap Fault (Caution) procedures of the Slat and Flap Control System, Section 05-10, Flight Controls, Chapter 5 - Non Normal Procedures	Revision 112, dated May 19, 2022
BD-700-1A11 (Global 5000)	Bombardier Global 5000 AFM, Publication No. CSP 700-5000-1[3]	C. Flap Fail (Caution), D. Slat Fail (Caution), E. Slat-Flap Fail (Caution), and F. Slat Fault (Caution) or Flap Fault (Caution) or Slat-Flap Fault (Caution) procedures of the Slat and Flap Control System, Section 05-10, Flight Controls, Chapter 5 - Non Normal Procedures	Revision 73, dated May 19, 2022

Bombardier Airplane Model (Marketing Designation)	AFM	AFM Section	AFM Revision and Issue Date
BD-700-1A11 (Global 5000 ft. GVFD)	Bombardier Global 5000 Featuring Global Vision Flight Deck AFM, Publication No. CSP 700-5000-1V[4]	C. Flap Fail (Caution), D. Slat Fail (Caution), E. Slat-Flap Fail (Caution), and F. Slat Fault (Caution) or Flap Fault (Caution) or Slat-Flap Fault (Caution) procedures of the Slat and Flap Control System, Section 05-10, Flight Controls, Chapter 5 - Non Normal Procedures	Revision 42, dated May 19, 2022
BD-700-1A11 (Global 5500)	Bombardier Global 5500 AFM, Publication No. CSP 700-5500-1[5]	C. Flap Fail (Caution), D. Slat Fail (Caution), E. Slat-Flap Fail (Caution), and F. Slat Fault (Caution) or Flap Fault (Caution) or Slat-Flap Fault (Caution) procedures of the Slat and Flap Control System, Section 05-10, Flight Controls, Chapter 5 - Non Normal Procedures	Revision 14, dated May 19, 2022
BD-700-1A10 (Global 6000)	Bombardier Global 6000 AFM, Publication No. CSP 700-1V[6]	C. Flap Fail (Caution), D. Slat Fail (Caution), E. Slat-Flap Fail (Caution), and F. Slat Fault (Caution) or Flap Fault (Caution) or Slat-Flap Fault (Caution) procedures of the Slat and Flap Control System, Section 05-10, Flight Controls, Chapter 5 - Non Normal Procedures	Revision 42, dated May 19, 2022

Bombardier Airplane Model (Marketing Designation)	AFM	AFM Section	AFM Revision and Issue Date
BD-700-1A10 (Global 6500)	Bombardier Global 6500 AFM, Publication No. CSP 700-6500-1[7]	C. Flap Fail (Caution), D. Slat Fail (Caution), E. Slat-Flap Fail (Caution), and F. Slat Fault (Caution) or Flap Fault (Caution) or Slat-Flap Fault (Caution) procedures of the Slat and Flap Control System, Section 05-10, Flight Controls, Chapter 5 - Non Normal Procedures	Revision 14, dated May 19, 2022

[1] For obtaining the procedures for Bombardier Global Express AFM, Publication No. CSP 700-1, use Document Identification No. GL 700 AFM-1.

[2] For obtaining the procedures for Bombardier Global Express XRS AFM, Publication No. CSP 700-1A, use Document Identification No. GL 700 AFM-1A.

[3] For obtaining the procedures for Bombardier Global Express AFM, Publication No. CSP 700-5000-1, use Document Identification No. GL 5000 AFM.

[4] For obtaining the procedures for Bombardier Global Express AFM, Publication No. CSP 700-5000-1V, use Document Identification No. GL 5000 GVFD AFM.

[5] For obtaining the procedures for Bombardier Global Express AFM, Publication No. CSP 700-5000-1V, use Document Identification No. GL 5500 AFM.

[6] For obtaining the procedures for Bombardier Global Express AFM, Publication No. CSP 700-1V, use Document Identification No. GL 6000 AFM.

[7] For obtaining the procedures for Bombardier Global 6500 AFM, Publication No. CSP 700-6500-1, use Document Identification No. GL 6500 AFM.

(h) Additional 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 responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the New York ACO Branch, mail it to ATTN: Program Manager, Continuing Operational Safety, at the address identified in paragraph (i)(2) of this AD or email to: 9-avs-nyaco-cos@faa.gov. If mailing

information, also submit information by email. 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, New York ACO 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.

(i) Additional Information

(1) Refer to Transport Canada AD CF-2022-30, dated June 3, 2022, for related information. This Transport Canada AD may be found in the AD docket at regulations.gov under Docket No. FAA-2022-1661.

(2) For more information about this AD, contact Elizabeth Dowling, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov.

(j) 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) Slat and Flap Control System, Section 05-10, Flight Controls, Chapter 5 - Non Normal Procedures, of the Bombardier Global Express AFM, Publication No. CSP 700-1, Revision 112, dated May 19, 2022.

Note 1 to paragraph (j)(2)(i): For obtaining the procedures for Bombardier Global Express AFM, Publication No. CSP 700-1, use Document Identification No. GL 700 AFM-1.

(ii) Slat and Flap Control System, Section 05-10, Flight Controls, Chapter 5 - Non Normal Procedures, of the Bombardier Global Express XRS AFM, Publication No. CSP 700-1A, Revision 112, dated May 19, 2022.

Note 2 to paragraph (j)(2)(ii): For obtaining the procedures for Bombardier Global Express XRS AFM, Publication No. CSP 700-1A, use Document Identification No. GL 700 AFM-1A.

(iii) Slat and Flap Control System, Section 05-10, Flight Controls, Chapter 5 - Non Normal Procedures, of the Bombardier Global 5000 AFM, Publication No. CSP 700-5000-1, Revision 73, dated May 19, 2022.

Note 3 to paragraph (j)(2)(iii): For obtaining the procedures for Bombardier Global Express AFM, Publication No. CSP 700-5000-1, use Document Identification No. GL 5000 AFM.

(iv) Slat and Flap Control System, Section 05-10, Flight Controls, Chapter 5 - Non Normal Procedures, of the Bombardier Global 5000 AFM, Publication No. CSP 700-5000-1V, Revision 42, dated May 19, 2022.

Note 4 to paragraph (j)(2)(iv): For obtaining the procedures for Bombardier Global Express AFM, Publication No. CSP 700-5000-1V, use Document Identification No. GL 5000 GVFD AFM.

(v) Slat and Flap Control System, Section 05-10, Flight Controls, Chapter 5 - Non Normal Procedures, of the Bombardier Global 5500 AFM, Publication No. CSP 700-5500-1, Revision 14, dated May 19, 2022.

Note 5 to paragraph (j)(2)(v): For obtaining the procedures for Bombardier Global Express AFM, Publication No. CSP 700-5000-1V, use Document Identification No. GL 5500 AFM.

(vi) Slat and Flap Control System, Section 05-10, Flight Controls, Chapter 5 - Non Normal Procedures, of the Bombardier Global 6000 AFM, Publication No. CSP 700-1V, Revision 42, dated May 19, 2022.

Note 6 to paragraph (j)(2)(vi): For obtaining the procedures for Bombardier Global Express AFM, Publication No. CSP 700-1V, use Document Identification No. GL 6000 AFM.

(vii) Slat and Flap Control System, Section 05-10, Flight Controls, Chapter 5 - Non Normal Procedures, of the Bombardier Global 6500 AFM, Publication No. CSP 700-6500-1, Revision 14, dated May 19, 2022.

Note 7 to paragraph (j)(2)(vii): For obtaining the procedures for Bombardier Global Express AFM, Publication No. CSP 700-5000-1V, use Document Identification No. GL 6500 AFM.

(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; website 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 fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on March 9, 2023.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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