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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-1893; Project Identifier MCAI-2023-01050-T; Amendment 39-22953; AD 2025-03-05]

RIN 2120-AA64

Airworthiness Directives; Airbus Canada Limited Partnership (Type Certificate Previously Held by C Series Aircraft Limited Partnership (CSALP); Bombardier, Inc.) Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Airbus Canada Limited Partnership Model BD-500-1A10 and BD-500-1A11 airplanes. This AD was prompted by reported events of annunciated horizontal stabilizer trim actuator (HSTA) jams occurring at the end of the cruise phase of flight. This AD requires lubricating the HSTA using an improved method, at a reduced interval, as specified in a Transport Canada AD, which is incorporated by reference. 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-2024-1893; 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 Transport Canada material identified in this AD, contact Transport Canada, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario K1A 0N5, Canada; telephone 888-663-3639; email TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca; website at tc.canada.ca/en/aviation.

- You may view this material 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-2024-1893.

FOR FURTHER INFORMATION CONTACT: Mark Taylor, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone 781-238-7229; email Mark.Taylor@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 Airbus Canada Limited Partnership Model BD-500-1A10 and BD-500-1A11 airplanes. The NPRM published in the *Federal Register* on July 24, 2024 (89 FR 59851). The NPRM was prompted by AD

CF-2023-68R1, dated April 30, 2024, issued by Transport Canada, which is the aviation authority for Canada (Transport Canada AD CF-2023-68R1) (also referred to as the MCAI). The MCAI states that there have been reported events of annunciated HSTA jams occurring at the end of the cruise phase of flight. Investigation revealed water intrusion in the primary ball nut and/or secondary nut housing of the HSTA ballscrew assembly. Water intrusion and subsequent freezing has caused jamming of the HSTA, resulting in the loss of pitch trim capability. Loss of pitch trim capability could result in loss of control of the airplane.

In the NPRM, the FAA proposed to require lubricating the HSTA using an improved method, at a reduced interval, as specified in Transport Canada AD CF-2023-68R1. The FAA is issuing this AD to address water intrusion and subsequent freezing, which causes jamming of the HSTA, resulting in the loss of pitch trim capability.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-1893.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from the Air Line Pilots Association, International (ALPA), and an individual, who supported the NPRM without change.

The FAA received additional comments from Delta Air Lines. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request for Airworthiness Limitations (AWL) Manual to be used as an Alternative Method of Compliance

Delta requested that the FAA issue an AD to mandate an AWL in lieu of mandating the actions specified in Airbus Canada Limited Partnership Service Bulletin BD500-274006, Issue 001, dated June 29, 2023 (Airbus Canada Limited Partnership

Service Bulletin BD500-274006). As an alternative, Delta requested that the FAA revise the proposed AD to allow the AWL as another acceptable means of compliance. Delta stated that Airbus Canada released A220 AWL Issue 018.00 on June 20, 2024, which adds CMR task C27-41-00-02 to perform the lubrication of the HSTA ballscrew assembly within intervals of 1,000 flight hours or 12 months. Delta noted that Airbus Canada Limited Partnership Service Bulletin BD500-274006 has a note that states it is not necessary to do the service bulletin after the HSTA lubrication interval given in the AWL manual is revised. Delta concluded that A220 AWL Issue 018.00 would be an acceptable means of compliance and an equivalent level of safety to Service Bulletin BD500-274006.

The FAA does not agree to include A220 AWL Issue 018.00 as an optional method of compliance. The AWL will not be mandated at this time. This AD corresponds to Transport Canada AD CF-2023-68R1, which mandates lubrication of the HSTA using Airbus Canada Limited Partnership Service Bulletin BD500-274006. By mandating the Transport Canada AD, the FAA minimizes differences between the FAA AD and the MCAI and MCAI-referenced service information. This FAA AD is consistent with FAA Order 8040.5, dated September 29, 2006, which covers the AD process for MCAIs. Furthermore, the FAA has not been provided any validation indicating equivalency of the requested change to the current MCAI requirement. Therefore, the FAA concurs with Transport Canada's requirement to mandate the service bulletin as specified in the Transport Canada AD. The FAA has not changed this AD in this regard.

Request for AD to Include AMP of Any Revision

Delta requested that the FAA add an exception to Airbus Canada Limited Partnership Service Bulletin BD500-274006 paragraph 3.2 to allow the use of Aircraft Maintenance Program (AMP) BD500-A-J12-20-27-12AAA-240B-A without referencing a revision level. Delta stated that per Airbus Canada Technical Request Case Number

00129773, the changes made to AMP issue 11 were minor and do not affect the intent of the task. Delta added that performing the AMP at any revision level would still accomplish the intended lubrication task.

The FAA disagrees with the request. In general, being in control of all aspects of an AD to minimize variability is critically important when addressing a safety issue. Limiting the allowable issues/revisions of service information is an important element of this process as the summation of numerous incremental changes over several issues/revisions can be significant. Therefore, the FAA is in full agreement with the Transport Canada AD and the reference to AMP BD500-A-J12-20-27-12AAA-240B-A at Issue 012 or later. The FAA has not changed this AD in this regard.

Request for Elimination of Grace Period for Compliance

Delta requested that the FAA remove the 5-day “grace period” from the exceptions paragraphs (h)(3)(ii) and (h)(4)(ii) of the proposed AD. Delta stated that the previous versions of the Airbus A220 Airworthiness Limitations Issue 017.00 CCMR Section and MRB already included task 27-41-00-02 for the lubrication of the HSTA ballscrew assembly. Delta noted that in A220 AWL Issue 018.00, the task was transferred to the CMR section task C27-41-00-02; that task had a 12-month and 3,000-flight-hour limit. By including these requirements in the A220 AWL, MRBR, and MPD, the task already requires operators to perform the lubrication task within 12 months. Therefore, Delta concluded that no operator should be beyond the 12-month and 3,000-flight-hour limit, and thus there is no need to allow up to 5 days after the effective date requirement.

The FAA disagrees with the request. The allowance of a “grace period” (in this case 5 days) in a non-emergency AD is provided in order to avoid inadvertently and unnecessarily grounding any airplanes. The FAA has determined that providing a 5-day “grace period” will not adversely affect safety. The FAA notes that the commenter did not contend that the 5-day “grace period” is a problem or risk. The commenter is only

contending that it “should” not be needed. If it is not needed, then it simply will not be utilized. However, if the 5-day “grace period” is needed, then it prevents inadvertent and unnecessary grounding of an airplane and provides operators with time after the effective date of the AD to accomplish the new lubrication task. The FAA has not revised this AD in this regard.

Additional Change in this AD

Paragraph (h)(1) of the proposed AD erroneously referred to the effective date of Transport Canada AD CF-2023-68R1, and should have referred to the effective date of AD CF-2023-68 (October 18, 2023). Paragraph (h)(1) of this AD has been revised accordingly.

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, considered the comments received, 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.

Material Incorporated by Reference Under 1 CFR Part 51

Transport Canada AD CF-2023-68R1 specifies improved procedures for lubricating the HSTA and repeating the lubrication at a reduced interval. This material 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 100 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
Up to 2 work-hours X \$85 per hour = \$170	\$0	Up to \$170	Up to \$17,000

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:

2025-03-05 Airbus Canada Limited Partnership (Type Certificate Previously Held by C Series Aircraft Limited Partnership (CSALP); Bombardier, Inc.): Amendment 39-22953; Docket No. FAA-2024-1893; Project Identifier MCAI-2023-01050-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 Airbus Canada Limited Partnership (Type Certificate previously held by C Series Aircraft Limited Partnership (CSALP); Bombardier, Inc.) Model BD-500-1A10 and BD-500-1A11 airplanes, certificated in any category, as

identified in Transport Canada AD CF-2023-68R1, dated April 30, 2024 (Transport Canada AD CF-2023-68R1).

(d) Subject

Air Transport Association (ATA) of America Code 55, Stabilizers.

(e) Unsafe Condition

This AD was prompted by reported events of annunciated horizontal stabilizer trim actuator (HSTA) jams occurring at the end of the cruise phase of flight. Investigation revealed water intrusion in the primary ball nut and/or secondary nut housing of the HSTA ballscrew assembly. The FAA is issuing this AD to address water intrusion and subsequent freezing, which causes jamming of the HSTA, resulting in the loss of pitch trim capability. The unsafe condition, if not addressed, could result in loss of control of the airplane.

(f) Compliance

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

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, Transport Canada AD CF-2023-68R1.

(h) Exceptions to Transport Canada AD CF-2023-68R1

(1) Where Transport Canada AD CF-2023-68R1 refers to “the effective date of AD CF-2023-68 (18 October 2023),” this AD requires using the effective date of this AD.

(2) Where Transport Canada AD CF-2023-68R1 refers to hours air time, this AD requires using flight hours.

(3) Where paragraph A of Part I of Transport Canada AD CF-2023-68R1 specifies an initial compliance time for performing the lubrication of the HSTA, for this

AD, the initial compliance time is at the earlier of the times specified in paragraphs (h)(3)(i) and (ii) of this AD.

(i) Within 1,100 flight hours after the effective date of this AD.

(ii) Within 12 months after the date of the most recent HSTA lubrication task, or within 5 days after the effective date of this AD, whichever occurs later.

(4) Where paragraph B of Part I of Transport Canada AD CF-2023-68R1 specifies an initial compliance time for performing the lubrication of the HSTA, for this AD, the initial compliance time is at the later of the times specified in paragraphs (h)(4)(i) and (ii) of this AD.

(i) Within 1,100 flight hours or 12 months, whichever occurs first, since the date of issuance of the original airworthiness certificate or the original export certificate of airworthiness.

(ii) Within 5 days after the effective date of this AD.

(i) Additional AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, AIR-520, Continued Operational Safety 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 Continued Operational Safety Branch, mail it to the address identified in paragraph (j) of this AD. Information may be emailed to: AMOC@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, AIR-520, Continued Operational Safety Branch, FAA; or Transport Canada; or Airbus Canada Limited Partnership's Transport Canada Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(j) Additional Information

For more information about this AD, contact Mark Taylor, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone 781-238-7229; email Mark.Taylor@faa.gov.

(k) Material Incorporated by Reference

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

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

(i) Transport Canada AD CF-2023-68R1, dated April 30, 2024.

(ii) [Reserved]

(3) For Transport Canada AD CF-2023-68R1, contact Transport Canada, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario K1A 0N5, Canada; telephone 888-663-3639; email TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca. You may find this Transport Canada AD on the Transport Canada website at tc.canada.ca/en/aviation.

(4) You may view this material 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 material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA,

visit www.archives.gov/federal-register/cfr/ibr-locations, or email

fr.inspection@nara.gov.

Issued on January 29, 2025.

Suzanne Masterson,

Deputy Director, Integrated Certificate Management Division,

Aircraft Certification Service.

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