



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-0454; Project Identifier MCAI-2023-00923-T]

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: Supplemental notice of proposed rulemaking (SNPRM).

SUMMARY: The FAA is revising a notice of proposed rulemaking (NPRM) that would have applied to all Airbus Canada Limited Partnership Model BD-500-1A10 and BD-500-1A11 airplanes. This action revises the NPRM by adding a prohibition on flight dispatch under certain conditions. The FAA is proposing this airworthiness directive (AD) to address the unsafe condition on these products. Since these actions would impose an additional burden over those in the NPRM, the FAA is requesting comments on this SNPRM.

DATES: The FAA must receive comments on this SNPRM 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 [regulations.gov](https://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.

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-0454; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM, this SNPRM, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For Transport Canada material identified in this proposed 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. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-0454.

- 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.

FOR FURTHER INFORMATION CONTACT: Joseph Catanzaro, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section.

Include “Docket No. FAA-2024-0454; Project Identifier MCAI-2023-00923-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this SNPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this SNPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this SNPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this SNPRM. Submissions containing CBI should be sent to Joseph Catanzaro, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued an NPRM to amend 14 CFR part 39 by adding an AD that would apply to all Airbus Canada Limited Partnership Model BD-500-1A10 and BD-500-1A11 airplanes. The NPRM published in the *Federal Register* on March 7, 2024 (89 FR 16486). The NPRM was prompted by AD CF-2023-59, dated July 26, 2023 (Transport Canada AD CF-2023-59), issued by Transport Canada, which is the aviation authority for Canada. Transport Canada AD CF-2023-59 states that there have been multiple in-service failures of engine feed check valves, which have resulted in fuel imbalance conditions in flight. An investigation found that the engine feed check valve is subject to abnormal wear-out failures due to a severe operating environment in the engine fuel feed line. In the event of a failure of the check valve, flapper valve assembly items can become dislodged and contaminate the fuel system, potentially resulting in severe fuel imbalance or loss of fuel flow to the engine.

In the NPRM, the FAA proposed to require repetitive replacement of the left- and right-side engine feed check valves with new engine feed check valves.

Actions Since the NPRM Was Issued

Since the FAA issued the NPRM, Transport Canada superseded Transport Canada AD CF-2023-59, dated July 26, 2023, and issued Transport Canada AD CF-2024-20, dated June 5, 2024 (Transport Canada AD CF-2024-20) (also referred to as the MCAI), to correct an unsafe condition for all Airbus Canada Limited Partnership Model BD-500-1A10 and BD-500-1A11 airplanes. The MCAI states that since issuance of Transport Canada AD CF-2023-59, the manufacturer determined that dispatching with either the left or right fuel alternating current (AC) boost pump inoperative can further exacerbate the risk of severe fuel imbalance, potentially leading to loss of fuel flow to both engines. The manufacturer issued Flight Operations Transmission (FOT) A220-FOT-28-00-001 to raise awareness of this issue and recommend certain dispatch restrictions. The MCAI

retains the requirements of Transport Canada AD CF-2023-59, which is superseded, and prohibits dispatch with either the left or right fuel AC boost pump inoperative.

The FAA is proposing this AD to address failure of the check valve. The unsafe condition, if not addressed, could result in severe fuel imbalance or loss of fuel flow to one or both engines.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-0454.

Comments

The FAA received a comment from Air Line Pilots Association, International (ALPA) who supported the NPRM without change.

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

Request for Revised Reference to MCAI

Delta requested that the proposed AD be revised to reference Transport Canada AD CF-2024-20 instead of Transport Canada AD CF-2023-59. Delta pointed out that Transport Canada AD CF-2024-20 adds a prohibition on dispatch of an airplane with either the left or right fuel AC boost pump inoperative.

The FAA agrees and has revised paragraph (g) of the proposed AD to reference Transport Canada AD CF-2024-20 which also adds the prohibition on dispatch with either the left or right fuel AC boost pump inoperative to the proposed requirements. The description of the unsafe condition has also been revised to match the revised unsafe condition description in Transport Canada AD CF-2024-20.

Request for Permission to Use Later Revisions of Service Information

Delta requested that the FAA state its position on the approval to use later revisions of Airbus Canada Service Bulletin BD500-282018, Issue 001, dated May 29,

2023. Delta stated that Transport Canada AD CF-2023-59 (which was proposed for incorporation by reference in the NPRM) provides this allowance.

The FAA agrees to clarify. The FAA confirms that it intends to allow the use of applicable later service bulletins revisions to comply with the requirements of this proposed AD. This proposed AD refers to Transport Canada AD CF-2024-20 as the appropriate source of service information for accomplishing the required actions.

Paragraph A. of Transport Canada AD CF-2024-20 specifies acceptance of the use of later-approved revisions of the referenced service bulletin document for compliance.

Therefore, applicable later-approved service bulletin revisions are acceptable.

Request to Clarify Proposed AD's Effect on Compliance with AD 2023-16-02

Delta requested that the FAA clarify the relationship between the proposed AD and AD 2023-16-02, Amendment 39-22521 (88 FR 56459, August 18, 2023) (AD 2023-16-02). Delta noted that AD 2023-16-02 includes a repetitive inspection, at intervals not to exceed 3,000 flight hours, of the fuel feed system at ribs 5 and 6. That inspection, depending on findings on the tee assembly, could lead to an on-condition inspection of the engine isolation feed ejector check valve P/N 2090199-101 at two locations per wing and replacement if any damage is discovered on those valves. Delta compared that requirement to the proposed AD's proposed requirement of repetitive replacement of one engine isolation feed ejector check valve within 4,000 flight cycles and thereafter at intervals not to exceed 3,000 flight cycles, and suggested that the repetitive replacement be used in lieu of the on-condition replacement required by AD 2023-16-02.

The FAA agrees. Replacement of an engine isolation feed ejector check valve, P/N 2090199-101, under certain conditions, would be an equivalent level of safety for the on-condition inspection of that valve required by AD 2023-16-02. The FAA has revised paragraph (b) of this proposed AD to indicate the connection between this SNPRM and

AD 2023-16-02, and added a new paragraph (i) to this proposed AD to specify the conditions for terminating action.

Material Incorporated by Reference Under 1 CFR Part 51

Transport Canada AD CF-2024-20 specifies procedures for repetitive replacement of the left- and right-side engine feed check valves with new engine feed check valves and prohibits dispatch with either the left or right fuel AC boost pump inoperative. 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.

FAA's Determination

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 is issuing this SNPRM after determining that the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Certain changes described above expand the scope of the NPRM. As a result, it is necessary to reopen the comment period to provide additional opportunity for the public to comment on this SNPRM.

Proposed AD Requirements in this SNPRM

This proposed AD would require accomplishing the actions specified in Transport Canada AD CF-2024-20 described previously, except for any differences identified as exceptions in the regulatory text of this proposed AD.

Explanation of Required Compliance Information

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs.

The FAA has been coordinating this process with manufacturers and CAAs. As a result, the FAA proposes to incorporate Transport Canada AD CF-2024-20 by reference in the FAA final rule. This proposed AD would, therefore, require compliance with Transport Canada AD CF-2024-20 in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Material required by Transport Canada AD CF-2024-20 for compliance will be available at regulations.gov under Docket No. FAA-2024-0454 after the FAA final rule is published.

Interim Action

The FAA considers that this proposed AD would be an interim action. If final action is identified, the FAA might consider further rulemaking then.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 91 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
9 work-hours X \$85 per hour = \$765 per replacement cycle	\$2,830 per replacement cycle	\$3,595 per replacement cycle	\$327,145 per replacement cycle

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some or all of the costs of this proposed 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

The FAA 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) Would not affect intrastate aviation in Alaska, and
- (3) Would 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 adding the following new airworthiness directive:

Airbus Canada Limited Partnership (Type Certificate Previously Held by C Series Aircraft Limited Partnership (CSALP); Bombardier, Inc.): Docket No. FAA-2024-0454; Project Identifier MCAI-2023-00923-T.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD affects AD 2023-16-02, Amendment 39-22521 (88 FR 56459, August 18, 2023) (AD 2023-16-02).

(c) Applicability

This AD applies to all Airbus Canada Limited Partnership Model BD-500-1A10 and BD-500-1A11 airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 28, Fuel.

(e) Unsafe Condition

This AD was prompted by a report of multiple in-service failures of engine feed check valves, which have resulted in fuel imbalance conditions in flight. The FAA is issuing this AD to address failure of the check valve. The unsafe condition, if not addressed, could result in severe fuel imbalance or loss of fuel flow to one or both engines.

(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-2024-20, dated June 5, 2024 (Transport Canada AD CF-2024-20).

(h) Exception to Transport Canada AD CF-2024-20

(1) Where Transport Canada AD CF-2024-20 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where Transport Canada AD CF-2024-20 refers to hours air time, this AD requires using flight hours.

(i) Terminating Action for AD 2023-16-02

Accomplishing repetitive replacement of the engine isolation feed ejector check valve, P/N 2090199-101, as required by paragraph (g) of this AD is an acceptable means of complying with the repetitive on-condition inspection requirement of AD 2023-16-02 provided that all of the conditions in paragraphs (i)(1) through (3) are satisfied.

(1) Both the replacement and on-condition inspection required by paragraph (g) of this AD are accomplished concurrently at intervals not to exceed 3,000 flight hours after the most recent inspection performed in accordance with AD 2023-16-02.

(2) Only one check valve (P/N 2090199-101) that has been replaced as specified in paragraph (g) of this AD, per wing, may be granted relief from the on-condition inspection and replacement requirements of AD 2023-16-02.

(3) All other applicable requirements of AD 2023-16-02 are complied with.

(j) Special Flight Permit

Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199 to operate the airplane to a location where the airplane can be modified, provided that only crew are onboard.

(k) 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, send it to the attention of the person identified in paragraph (l) of this AD and email 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's Transport Canada Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(3) *Required for Compliance (RC)*: Except as required by paragraph (k)(2) of this AD, if any material contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the

operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(l) Additional Information

For more information about this AD, contact Joseph Catanzaro, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov.

(m) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference 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-2024-20, dated June 5, 2024.

(ii) [Reserved]

(3) 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.

(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 March 25, 2025.

Victor Wicklund,
Deputy Director, Integrated Certificate Management Division,
Aircraft Certification Service.
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