

(3) Major engine repairs are needed; or

(4) Replacement of an engine part is found necessary during the tests, or due to the teardown inspection findings.

(c) Upon completion of all demonstrations and testing specified in these special conditions, the engine and its components must be—

- (1) Within serviceable limits;
- (2) Safe for continued operation; and
- (3) Capable of operating at declared ratings while remaining within limits.

*(33) Engine Electrical Systems*

(a) *Applicability.* Any system or device that provides, uses, conditions, or distributes electrical power, and is part of the engine type design, must provide for the continued airworthiness of the engine, and must maintain electric engine ratings.

(b) *Electrical systems.* The electrical system must ensure the safe generation and transmission of power, and electrical load shedding, and that the engine does not experience any unacceptable operating characteristics or exceed its operating limits.

(c) *Electrical power distribution.*

(1) The engine electrical power distribution system must be designed to provide the safe transfer of electrical energy throughout the electrical power plant. The system must be designed to provide electrical power so that the loss, malfunction, or interruption of the electrical power source will not result in a hazardous engine effect, as defined in special condition no. 17(d)(2) of these special conditions or detrimental engine effects in the intended aircraft application.

(2) The system must be designed and maintained to withstand normal and abnormal conditions during all ground and flight operations.

(3) The system must provide mechanical or automatic means of isolating a faulted electrical energy generation or storage device from affecting the safe transmission of electric energy to the electric engine.

(d) *Protection systems.* The engine electrical system must be designed such that the loss, malfunction, interruption of the electrical power source, or power conditions that exceed design limits, will not result in a hazardous engine effect, as defined in special condition no. 17(d)(2) of these special conditions.

(e) *Electrical power characteristics.* The applicant must identify and declare, in the engine installation manual, the characteristics of any electrical power supplied from—

- (1) the aircraft to the engine electrical system, for starting and operating the

engine, including transient and steady-state voltage limits, or

(2) the engine to the aircraft via energy regeneration, and any other characteristics necessary for safe operation of the engine.

(f) *Environmental limits.*

Environmental limits that cannot adequately be substantiated by endurance demonstration, validated analysis, or a combination thereof must be demonstrated by the system and component tests in special condition no. 27 of these special conditions.

(g) *Electrical system failures.* The engine electrical system must—

(1) Have a maximum rate of loss of power control (LOPC) that is suitable for the intended aircraft application;

(2) When in the full-up configuration, be single-fault tolerant, as determined by the Administrator, for electrical, electrically detectable, and electronic failures involving LOPC events;

(3) Not have any single failure that results in hazardous engine effects; and

(4) Ensure failures or malfunctions that lead to local events in the intended aircraft application do not result in hazardous engine effects, as defined in special condition no. 17(d)(2) of these special conditions, due to electrical system failures or malfunctions.

(h) *System safety assessment.* The applicant must perform a system safety assessment. This assessment must identify faults or failures that affect normal operation, together with the predicted frequency of occurrence of these faults or failures. The intended aircraft application must be taken into account to assure the assessment of the engine system safety is valid.

Issued in Kansas City, Missouri, on March 1, 2024.

**Patrick R. Mullen,**

*Manager, Technical Policy Branch, Policy and Standards Division, Aircraft Certification Service.*

[FR Doc. 2024-04800 Filed 3-6-24; 8:45 am]

**BILLING CODE 4910-13-P**

**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:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for all Airbus Canada Limited Partnership Model BD-500-1A10 and BD-500-1A11 airplanes. This proposed 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. This proposed AD would require repetitive replacement of the left- and right-side engine feed check valves with new engine feed check valves, as specified in a Transport Canada AD, which is proposed for incorporation by reference (IBR). The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by April 22, 2024.

**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 this NPRM, 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 material that is proposed for IBR 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-Consignesde navigabilite.TC@tc.gc.ca](mailto:TC.AirworthinessDirectives-Consignesde navigabilite.TC@tc.gc.ca). You may find this material on the Transport Canada website at [tc.canada.ca/en/aviation](http://tc.canada.ca/en/aviation). It is also available at [regulations.gov](http://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, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7366; email [9-avs-nyaco-cos@faa.gov](mailto: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 **ADDRESSES**. 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](http://regulations.gov), including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

**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 NPRM 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 NPRM, 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 NPRM. Submissions containing CBI should be sent to Joseph Catanzaro, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7366; email [9-avs-nyaco-cos@faa.gov](mailto: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**

Transport Canada, which is the aviation authority for Canada, has issued Transport Canada AD CF-2023-59, dated July 26, 2023 (Transport Canada AD CF-2023-59) (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 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.

The FAA is proposing this AD to address the unsafe condition on these products.

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

**Related Service Information Under 1 CFR Part 51**

The FAA reviewed Transport Canada AD CF-2023-59, which specifies procedures for repetitive replacement of the left- and right-side engine feed check valves with new engine feed check valves. 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 **ADDRESSES**.

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

**Proposed AD Requirements in This NPRM**

This proposed AD would require accomplishing the actions specified in Transport Canada AD CF-2023-59 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-2023-59 by reference in the FAA final rule. This proposed AD would, therefore, require compliance with Transport Canada AD CF-2023-59 in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Service information required by Transport Canada AD CF-2023-59 for compliance will be available at [regulations.gov](http://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 80 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 × \$85 per hour = \$765 per replacement cycle.	\$2,830 per replacement cycle .....	\$3,595 per replacement cycle .....	\$287,600 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 April 22, 2024.

#### (b) Affected ADs

None.

#### (c) Applicability

This AD applies to all 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.

#### (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 the engine.

#### (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–2023–59, dated July 26, 2023 (Transport Canada AD CF–2023–59).

#### (h) Exceptions to Transport Canada AD CF–2023–59

(1) Where Transport Canada AD CF–2023–59 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where Transport Canada AD CF–2023–59 specifies "hours air time," this AD requires replacing those words with "flight hours."

#### (i) Special Flight Permit

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

#### (j) 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 (k) of this AD. Information may be emailed to: [9-AVS-NYACO-COS@faa.gov](mailto: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 Airbus Canada Limited Partnership'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 (j)(2) of this AD, if any service information 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.

#### (k) Additional Information

For more information about this AD, contact Joseph Catanzaro, Aviation Safety

Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7366; email [9-avs-nyaco-cos@faa.gov](mailto:9-avs-nyaco-cos@faa.gov).

#### (I) 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) Transport Canada AD CF-2023-59, dated July 26, 2023.

(ii) [Reserved]

(3) For Transport Canada AD CF-2023-59, contact Transport Canada, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario K1A 0N5, Canada; telephone 888-663-3639; email [TC.AirworthinessDirectives-Consignesde navigabilite.TC@tc.gc.ca](mailto:TC.AirworthinessDirectives-Consignesde navigabilite.TC@tc.gc.ca). You may find this Transport Canada AD on the Transport Canada website at [tc.canada.ca/en/aviation](http://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](http://www.archives.gov/federal-register/cfr/ibr-locations) or email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov).

Issued on February 27, 2024.

#### Victor Wicklund,

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

[FR Doc. 2024-04569 Filed 3-6-24; 8:45 am]

BILLING CODE 4910-13-P

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2024-0455; Project Identifier MCAI-2023-00997-T]

RIN 2120-AA64

#### Airworthiness Directives; Embraer S.A. Airplanes

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

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for certain Embraer S.A. Model EMB-545 and EMB-550 airplanes. This proposed AD was prompted by occurrences of premature cracks in the outer layer of certain flight deck side windows caused by interference due to manufacturing tolerances. This proposed AD would require initial and repetitive inspections

of the flight deck side windows and applicable corrective actions, and would prohibit the installation of affected flight deck side windows, as specified in an Agência Nacional de Aviação Civil (ANAC) AD. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by April 22, 2024.

**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](http://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](http://regulations.gov) under Docket No. FAA-2024-0455; 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 NPRM, 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 material that is proposed for IBR in this AD, contact National Civil Aviation Agency (ANAC), Aeronautical Products Certification Branch (GGCP), Rua Dr. Orlando Feirabend Filho, 230—Centro Empresarial Aquarius—Torre B—Andares 14 a 18, Parque Residencial Aquarius, CEP 12.246-190—São José dos Campos—SP, Brazil; telephone 55 (12) 3203-6600; email [pac@anac.gov.br](mailto:pac@anac.gov.br); website [anac.gov.br/en/](http://anac.gov.br/en/). You may find this material on the ANAC website at [sistemas.anac.gov.br/certificacao/DA/DAE.asp](http://sistemas.anac.gov.br/certificacao/DA/DAE.asp). It is also available at [regulations.gov](http://regulations.gov) under Docket No. FAA-2024-0455.

- 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:

Hassan Ibrahim, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: 206-231-3653; email: [hassan.m.ibrahim@faa.gov](mailto:hassan.m.ibrahim@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 **ADDRESSES**. Include “Docket No. FAA-2024-0455; Project Identifier MCAI-2023-00997-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](http://regulations.gov), including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

#### 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 NPRM 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 NPRM, 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 NPRM. Submissions containing CBI should be sent to Hassan Ibrahim, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: 206-231-3653; email: [hassan.m.ibrahim@faa.gov](mailto:hassan.m.ibrahim@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

ANAC, which is the aviation authority for Brazil, has issued ANAC AD 2023-08-03R01, effective November 2, 2023 (ANAC AD 2023-08-03R01) (also referred to as the MCAI), to correct an unsafe condition for Embraer S.A. Model EMB-550 and EMB-545 airplanes. The MCAI states premature