



AIRWORTHINESS DIRECTIVE

This Airworthiness Directive (AD) is issued pursuant to Canadian Aviation Regulation (CAR) 521.427. No person shall conduct a take-off or permit a take-off to be conducted in an aircraft that is in their legal custody and control, unless the requirements of CAR 605.84 pertaining to ADs are met. Standard 625 - Aircraft Equipment and Maintenance Standards Appendix H provides information concerning alternative means of compliance (AMOC) with ADs.

Number:

CF-2025-25

Effective Date:

13 May 2025

ATA:

21

Type Certificate:

A-236

Subject:

Air Conditioning – Integrated Air System Control (IASC) – Cabin Pressure Sensors Drifting

Applicability:

Airbus Canada Limited Partnership (ACLP) (formerly C Series Aircraft Limited Partnership (CSALP), Bombardier Inc.) model BD-500-1A10 and model BD-500-1A11 aeroplanes, all serial numbers.

Compliance:

As indicated below, unless already accomplished.

Background:

There have been reported events of cabin altitude overshoots during ACLP production and customer acceptance flight test activities. Investigations revealed that cabin pressure sensors installed in the aeroplane IASCs drifted outside their specification tolerances. ACLP identified 11 IASCs with the non-conforming cabin pressure sensors installed on in-service aeroplanes. The incorrect cabin pressure value could result in undetected high cabin differential pressure which can impact the structural integrity of the aeroplane.

ACLP issued service bulletin (SB) BD500-219004 to remove and replace the affected parts. In addition, ACLP issued the Flight Operation Transmission (FOT) A220-FOT-21-30-001 to provide additional dispatch instructions under applicable Minimum Equipment List (MEL) items to mitigate the risk until the affected IASCs with non-conforming cabin pressure sensors are replaced.

To address this unsafe condition, this AD mandates the removal and replacement of the affected IASCs, additional dispatch operational procedure under certain applicable MEL items, and prohibits the installation of the affected IASCs as replacement parts unless they have been modified and labelled in accordance with Liebherr-Aerospace Toulouse SAS SB 70071-21-02.

Corrective Actions:

For the purpose of this AD, the following definitions apply:

ACLP SB: ACLP SB BD500-219004 Issue 001, dated 27 January 2025, or later revision approved by the Chief, Continuing Airworthiness, Transport Canada (TC).

Affected IASC: IASC, part number 70071A010101, 70071A020201, or 70071A010201 with serial number 70071-01231, 70071-01269, 70071-01271, 70071-01274, 70071-01276, 70071-01278, 70071-01279, 70071-01280, 70071-01283, 70071-01285, or 70071-01286, unless the IASC has been repaired and labeled in accordance with the Liebherr-Aerospace Toulouse SAS SB 70071-21-02, as documented in the procedure in section 2 of the Accomplishment Instruction of the ACLP SB.

Serviceable IASC: is a IASC which is not an affected IASC.

Group 1 aeroplanes: are model BD-500-1A10 and BD-500-1A11, all serial numbers, which are installed with an affected IASC.

Applicable MEL items refer to the MEL items corresponding with the following Master Minimum Equipment List (MMEL) items:

- Section 1 - Chapter 21- Air Conditioning:
 - o 21-30-04 - Cabin Altitude Limitation Feature: 1) Primary and Backup Altitude Limiter
 - o 21-31-01- Cabin Pressure Control System (CPCS)
- Section 2 - CAS messages:
 - o 21-00-025-01- AUTO PRESS FAIL (CAUTION)
 - o 21-00-093-01:
 - PRESSURIZATION FAULT (ADVISORY)
 - 21 PRESSURIZATION FAULT - BACKUP ALT LIM INOP
 - o 21-00-097-01:
 - PRESSURIZATION FAULT (ADVISORY)
 - 21 PRESSURIZATION FAULT - CPCS AUTO MODE REDUND LOSS
 - o 21-00-099-01:
 - PRESSURIZATION FAULT (ADVISORY)
 - 21 PRESSURIZATION FAULT - PRIM ALT LIM INOP

Part I – Replacement of the Affected IASCs – Applicable to Group 1 aeroplanes

Within 3000 hours air time from the effective date of this AD, remove and replace the affected IASC with a serviceable IASC, in accordance with the procedure in Section 2 of the Accomplishment Instruction of the ACLP SB.

Part II – MEL Operational Restriction – Applicable to Group 1 aeroplanes

A. As of the effective date of this AD, it is prohibited to dispatch an aeroplane under the applicable MEL items unless the aeroplane is operated in accordance with the following additional dispatch instructions:

- Before each flight when the passenger door is open, confirm that the differential pressure (ΔP) displayed on the Engine Indication and Crew Alerting System (EICAS) page is 0.0 +/- 0.2 psid.

Note: Existing MMEL instructions (provisos) remain applicable.

B. Replacement of the affected IASC, as defined in Part I of this AD, terminates the MEL operational restriction mandated by Part II Paragraph A of this AD.

Part III – Installation Prohibition of Affected IASCs – Applicable to all aeroplanes

As of the effective date of this AD, it is prohibited to install an affected IASC as a replacement part.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 29 April 2025

Contact:

Alireza Gharagozloo, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca or any Transport Canada Centre.