



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-2022-09

Effective Date:

17 March 2022

ATA:

21

Type Certificate:

A-142

Subject:

Air Conditioning – Avionics Cooling – Integrated Flight Cabinet (IFC) Failure Due to High Temperatures

Applicability:

De Havilland Aircraft of Canada Limited (formerly Bombardier Inc.) model DHC-8-401 and -402 aeroplanes, serial numbers 4095 through 4633.

Compliance:

Within 8000 hours air time or 48 months, whichever occurs first, from the effective date of this AD, unless already accomplished.

Background:

As a result of higher-than-expected failure rates in service, the supplier's investigation found that actual operating temperatures within the IFC were significantly higher than anticipated during certification. Consequently, the reliability of the IFC module does not meet safety objectives. This failure mode could lead to uncontrolled autopilot pitch trim servo runaway and/or failure of the stall warning and stick pusher, resulting in reduced controllability of the aeroplane.

This AD mandates a design change to the IFC cooling through a service bulletin (SB) to address the above-mentioned unsafe condition.

Corrective Actions:

Modify the affected aeroplanes in accordance with Section 3.B. of the Accomplishment Instructions of De Havilland Aircraft of Canada SB 84-21-24, Revision B dated 13 October 2021, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Modification in accordance with Section 3.B. of the Accomplishment Instructions of De Havilland Aircraft of Canada SB 84-21-24, Revision A dated 20 August 2021, also meets the intent of this AD.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr
Chief, Continuing Airworthiness
Issued on 3 March 2022

Contact:

Mihaela Kramer, 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.