AD Number: CF-2023-48R1

# 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: Effective Date:
CF-2023-48R1 13 October 2023
ATA: Type Certificate:

31 A-234

Subject:

Indicating/Recording System - Misleading Pitch Trim Indication and Alerting for Take-off

Revision:

Supersedes AD CF-2023-48, issued 30 June 2023.

Applicability:

Bombardier Inc. model BD-100-1A10 (Challenger 300/350) aeroplanes, serial numbers 20003 to 20936.

Compliance:

As indicated below, unless already accomplished.

## Background:

A Bombardier design review of the avionic architecture of the pitch trim indication and alerting system has revealed that software errors in the Input/Output Concentrator (IOC), Data Concentrator Unit (DCU) and/or Adaptive Flight Display (AFD) could generate misleading pitch trim indication to the crew leading to incorrect horizontal stabilizer (HSTAB) positioning at take-off.

Incorrect HSTAB positioning at takeoff could lead to a loss of control of the aeroplane.

AD CF-2023-48 required changes to the Airplane Flight Manual (AFM) Emergency Procedures and mistakenly indicated <u>Non-Normal</u> Procedures to ensure the HSTAB is correctly configured prior to take-off.

This AD revision, CF-2023-48R1, is issued to update the aeroplane applicability and to correct the references to the <u>Non-Normal</u> AFM procedures for both Challenger 300 and 350 model aeroplanes. These references have been changed from Non-Normal procedures to Normal procedures.

### **Corrective Actions:**

A. Within 60 days from the effective date of this AD, amend the Transport Canada approved AFM by incorporating the applicable Temporary Revision (TR) into the AFM as detailed, in accordance with Table 1 below.

## Table 1

Aeroplane Model	AFM Procedure	AFM TR
BD-100-1A10 CH300	Emergency Procedures in Section 03-35 and Normal Procedures in Section 04-02.	TR-94-1, AFM CSP 100-1 Metric, dated 3 February 2023, or later revisions of this procedure approved by Transport Canada.



BD-100-1A10 CH300	Emergency Procedures in Section 03-35 and Normal Procedures in Section 04-02.	TR-94-1, AFM CSP 100-1 imperial, dated 3 February 2023, or later revisions of this procedure approved by Transport Canada.
BD-100-1A10 CH350	Emergency Procedures in Section 03-35 and Normal Procedures in Section 04-02.	TR-25-1, AFM CH350, dated 3 February 2023, or later revisions of this procedure approved by Transport Canada.

B. Advise all flight crews of the changes introduced by the approved Transport Canada AFM procedures listed above and thereafter operate the aeroplane accordingly.

### **Authorization:**

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young Chief, Continuing Airworthiness Issued on 29 September 2023

## Contact:

Philip Lynch, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail <a href="mailto:TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca">TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca</a> or any Transport Canada Centre.