



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-2019-12R1

Effective Date:

23 June 2022

ATA:

22

Type Certificate:

A-234

Subject:

Auto Flight System – Airplane Flight Manual (AFM) Limitations and Emergency Procedures – Velocity Decay during Low Level Flight Using Altitude Capture in One Engine Inoperative Conditions

Revision:

Supersedes AD CF-2019-12, issued 3 April 2019.

Applicability:

Bombardier Inc. model BD-100-1A10 aeroplanes, serial numbers 20003 through 20500 and 20501 through 20867.

Compliance:

Within 30 days from the effective date of this AD, unless already accomplished.

Background:

It was determined that during altitude capture flight, the flight guidance/autopilot does not account for engine failure while capturing an altitude. If an engine failure occurs during or before a climb while in altitude capture flight, the airspeed may drop significantly below the safe operating speed. Prompt crew intervention may be required to maintain a safe operating speed.

AD CF-2019-12 was issued to mandate the update of the Limitation and Emergency procedures of the AFM and referenced specific altitude capture modes but did not consider all possible available annunciated altitude capture modes utilized within the applicable aircraft.

This AD revision, CF-2019-12R1, mandates further updates to the Limitation and Emergency procedures of the AFM to ensure that all applicable altitude capture modes utilized and annunciated in the affected fleet are included and more clearly denotes these altitude capture modes in these new procedures. Therefore, the revised Limitation and Emergency procedures of the AFM completely addresses the above-mentioned unsafe condition.

In addition, CF-2019-12R1 clarifies the background description using the more generic reference to altitude capture as a flight phase.

Corrective Actions:

- A. Amend the applicable Transport Canada approved AFM by incorporating warnings added to Chapter 02 LIMITATIONS – System Limitations (section 02-04) Autoflight and to Chapter 03 EMERGENCY PROCEDURES – Powerplant (section 03-32) Engine Failure in Climb During (V) ALTS CAP or (V) ALTV CAP as applicable:

Aeroplane Serial Number	AFM No	AFM Revision
20003 through 20500	CSP 100-1	AFM Revision 62, dated 22 December 2020, or later revisions of this procedure approved by Transport Canada.
20501 through 20867	CH350 AFM	AFM Revision 28, dated 22 December 2020, or later revisions of this procedure approved by Transport Canada.

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

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Matthew Weeks
Acting Chief, Continuing Airworthiness
Issued on 9 June 2022

Contact:

Philip Lynch, 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.