



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-2021-36

Effective Date:

15 November 2021

ATA:

34

Type Certificate:

A-177

Subject:

Navigation – Head-up Display (HUD) and Synthetic Vision System (SVS) Misalignment

Applicability:

Bombardier Inc. model BD-700-2A12 aeroplanes, serial numbers 70006 through 70084.

Compliance:

As indicated below, unless already accomplished.

Background:

During production activities, a lateral offset was observed on the HUD of several aeroplanes between the SVS and actual runway. An investigation determined the cause of the offset to be mechanical misalignment of the HUD during manufacturing and assembly. Left uncorrected, this offset will create an incorrect aircraft reference display on the HUD, which could lead to excessive deviation during landing. This could particularly affect steep approach landing (SAL) or enhanced flight vision system (EFVS) operations.

To address this unsafe condition, this AD requires the HUD to be calibrated, and requires incorporation of Airplane Flight Manual (AFM) amendments, which prohibits SAL and EFVS operations until this calibration has been completed.

Corrective Actions:

- A. Within 30 days from the effective date of this AD, amend the Transport Canada approved AFM CSP 700-7000-1 by incorporating the following sections at the revision levels indicated or later Transport Canada approved revisions:
 - a. 01 General - 6. Service Bulletins, at Revision 14 dated 21 October 2021;
 - b. Supplement 7 Enhanced Flight Vision System (EFVS) Operations, at Revision 14 dated 21 October 2021; and
 - c. Supplement 20 Steep Approaches with Published Glidepath Angles from 4.5 to 5.5 degrees, at Revision 14 dated 21 October 2021.

Following incorporation of the above-mentioned revisions, advise all flight crews of the changes introduced by these revisions and thereafter operate the aeroplane accordingly.

- B. Within 27 months from the effective date of this AD, calibrate the HUD and second HUD (if installed) in accordance with the Accomplishment Instructions of Bombardier Service Bulletin (SB) 700-34-7521 Revision 3 dated 27 July 2021 and SB 700-34-7523 Basic Issue dated 1 April 2021, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
- C. For aeroplanes having calibrated the HUD in accordance with earlier revisions of SB 700-34-7521, within 27 months from the effective date of this AD, perform the retroactive actions identified in Revision 3 of SB 700-34-7521, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada. The HUD calibration is not considered completed for the purposes of AFM

Supplements 7 and 20 until these retroactive actions are completed.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr
Chief, Continuing Airworthiness
Issued on 1 November 2021

Contact:

Daniel Gosselin, 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.