

Advisory Wire

REFERENCE NO: AW700-34-0797 Rev 2

ATA: 34-32

EFFECTIVITY: Global 7500 aircraft

SUBJECT: HUD alignment for Enhanced
Flight Vision System (EFVS) or
Steep Approach operations

1. REFERENCES:

- 1.1 Transport Canada (TC) Airworthiness Directive (AD) CF-2021-36 Head-up Display (HUD) and Synthetic Vision System (SVS) Misalignment, located at https://wwwapps.tc.gc.ca/Saf-Sec-Sur/2/cawis-swimn/AD_dl.aspx?ad=CF-2021-36&cn=CF&ft=pdf&l=E posted as well to EASA website at <https://ad.easa.europa.eu/ad/CF-2021-36>
- 1.2 Service Bulletin (SB) 700-34-7521, Modification - Head up Display (HUD) System - HUD Calibration Procedures
- 1.3 Service Bulletin (SB) 700-34-7523, Modification - Head up Display (HUD) System - Second HUD Calibration Procedures
- 1.4 FAA AD 2022-27-02 effective March 17, 2023, available at: <https://drs.faa.gov/browse/excelExternalWindow/FR-ADFRAWD-2023-02781-0000000000.0001>

2. INTRODUCTION:

This Advisory Wire revision is being issued to notify operators of the Ref 1.4 AD issued by FAA, with the effective date of March 17, 2023.

The Ref 1.1 TC AD has the effective date of November 15, 2021, and EASA published the Ref. 1.1 as well on their website.

3. DESCRIPTION:

During production activities, a lateral offset was observed on the HUD of several aircraft (70006 to 70084) between the SVS and actual runway. Installation of the HUD requires an angular accuracy to within 0.185°. An investigation determined the cause of the offset to be mechanical misalignment greater than 0.185° of the HUD during manufacturing. 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 enhanced flight vision system (EFVS) or steep approach landing (SAL) operations.

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Bombardier developed a procedure to validate individual aircraft for correct HUD installation and alignment with instructions to correct the alignment if required. Service Bulletin (SB) 700-34-7521 (Ref. 1.2) was issued for the left-hand HUD installation and SB 700-34-7523 (Ref. 1.3) for the optional right-hand HUD installation. Bombardier recommends that these Service Bulletins be done before February 15, 2024, as mandated by Ref 1.1 AD.

Most of the affected aircraft has already incorporated the Ref. 1.2 SB (left-hand HUD installation). The remaining Operators are encouraged to schedule and incorporate the Ref. 1.2 SB by the required compliance date.

All affected aircraft has already incorporated the Ref. 1.3 SB (right-hand HUD installation).

4. ACTION:

The Ref 1.1 and Ref 1.4 ADs requires the HUD to be calibrated by incorporating the applicable Service Bulletins (Ref 1.2 and 1.3) and requires incorporation of Airplane Flight Manual (AFM) amendments, which prohibits SAL and EFVS operations until this calibration has been completed.

Do not conduct Steep Approach or EFVS operations until the alignment accuracy of the HUD has been verified and corrected if necessary, flight crews have been trained, and operational approval obtained.