

Advisory Wire

REFERENCE NO: AW700-34-0907

ATA: 34-44

EFFECTIVITY: Global 7500

**SUBJECT: Airplane Flight Manual (AFM)
Limitations and Master
Minimum Equipment List
(MMEL) Item Prohibition in the
Presence of 5G C-Band
Wireless Broadband
Interference**

1. REFERENCES:

- 1.1. Transport Canada Civil Aviation (TCCA) Airworthiness Directive (AD) CF-2022-61 – Navigation – Airplane Flight Manual (AFM) Limitations and Master Minimum Equipment List (MMEL) Item Prohibition in the Presence of 5G C-Band Wireless Broadband Interference
https://wwwapps.tc.gc.ca/Saf-Sec-Sur/2/cawis-swimn/AD_dl.aspx?ad=CF-2022-61&cn=CF&ft=pdf&l=E
- 1.2. Federal Aviation Administration (FAA) Airworthiness Directive (AD) 2023-06-13 – Airworthiness Directives; Bombardier, Inc., Airplanes
<https://drs.faa.gov/browse/ADFRAWD/doctypeDetails?modalOpened=true>
- 1.3. Transport Canada Civil Aviation (TCCA) Airworthiness Directive (AD) CF-2021-52 – Navigation – Aeroplane – Prohibition of Operations Requiring Radio Altimeter in the Presence of 5G C-Band Wireless Broadband Interference
https://wwwapps.tc.gc.ca/Saf-Sec-Sur/2/cawis-swimn/AD_dl.aspx?ad=CF-2021-52&cn=CF&ft=pdf&l=E
- 1.4. Federal Aviation Administration (FAA) Airworthiness Directive (AD) 2021-23-12 – Transport and Commuter Category Airplanes
<https://drs.faa.gov/browse/excelExternalWindow/FR-ADFRAWD-2021-26777-0000000000.0001>
- 1.5. Advisory Wire AW000-34-0010 - 5G - Risk of Potential Adverse Effects on Radio Altimeters
- 1.6. Flight Operation Notifications (FON) Manuals AVNC-038 - 5G - Risk of Potential Adverse Effects on Radio Altimeter

The references above are posted and available on the Bombardier Customer Portal:
<https://my.businessaircraft.bombardier.com/>

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2. INTRODUCTION:

This Advisory Wire (AW) is to clarify the operational restrictions introduced by Transport Canada Civil Aviation (TCCA) Airworthiness Directive (AD) CF-2022-61 (Ref. 1.1) and respectively by Federal Aviation Administration (FAA) AD 2023-06-13 (Ref. 1.2), in an airspace where they may be exposed to 5G C-Band broadband interference.

3. DESCRIPTION:

Bombardier analysis shows that 5G C-Band broadband interference can result in unavailable or misleading radio altimeter information, adversely affecting the performance of the Automatic Flight Control System (AFCS). This may lead to increased flight crew workload and adversely affect the safe operation of the aircraft during takeoff, approach, and landing.

Transport Canada determined that additional actions are necessary and on November 4, 2022 adopted a new airworthiness directive (AD) CF-2022-61 (Ref. 1.1) which requires amendment of the Airplane Flight Manual (AFM) Section 2 with new limitations and prohibits dispatch under certain Master Minimum Equipment List (M MEL) items to mitigate identified hazards due to harmful 5G C-Band broadband interference, when operating at airports where 5G is deployed as identified by Notice to Air Missions (NOTAMs). This AD came into effect on November 18, 2022 and is applicable to all Bombardier Model BD-700-2A12 airplanes.

Following TCCA AD (Ref. 1.1), on April 4, 2023, FAA published an AD 2023-06-13 (Ref. 1.2) that mandates to revise the AFM Limitation section by May 19, 2023, to include the information specified in paragraph (g) – M MEL Restriction (Ref. Figure 1) and paragraph (h) – AFM Limitation (Ref. Figure 2) of this AD.

3.1 FAA AD 2023-06-13, Paragraph (g) - M MEL restriction

Radio Altimeter 5G C-Band Interference, M MEL Restrictions

Dispatch or release is prohibited under the following M MEL Sections into or out of airports in U.S. airspace in the presence of 5G C-Band wireless broadband interference as identified by NOTAMs. (NOTAMs will be issued to state the specific airports where the radio altimeter is unreliable due to the presence of 5G C-Band wireless broadband interference.)

- a. Section 1 Line Replaceable Unit (LRU) Component Relief:
 - i. 32-43-33 – MAIN WHEEL AXLE-INTERFACE-MODULE/WHEEL SPEED TRANSDUCER 1) WHEEL SPEED TRANSDUCER
 - ii. 32-61-09 – MAIN LANDING GEAR WEIGHT ON WHEELS PROXIMITY SWITCHES
 - iii. 34-44-00 – RADIO ALTIMETER SYSTEM
- b. Section 2 Crew Alerting System (CAS) Message Relief:
 - i. 27-0645 – 27 FLT CTRL – PFCC BCU INPUT REDUND LOSS
 - ii. 27-0660 – 27 FLT CTRL – PFCC LGSCU INPUT REDUND LOSS
 - iii. 27-0665 – 27 FLT CTRL – PFCC RAD ALT INPUT REDUND LOSS
 - iv. 32-0048 – 32 GEAR – GEAR WOW / WOFFW REDUND LOSS
 - v. 32-1005 – ANTISKID DEGRADED (CAUTION)
 - vi. 34-1200 – RAD ALT 1 FAIL (Advisory)

Figure 1

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Bombardier is in process to obtain a temporary Alternate Means of Compliance (AMOC) to allow operators to carry the subject AD separately from the AFM in either electronic or physical form on board the aircraft, as a satisfactory terminating action for paragraph (g) of FAA AD 2023-06-13 (Ref. 1.2).

3.2 FAA AD 2023-06-13, Paragraph (h) - AFM Limitation

When operating in U.S. airspace, the following operations are prohibited in the presence of 5G C-Band wireless broadband interference as identified by NOTAM, unless using an approved Alternate Means of Compliance (AMOC):

- Autopilot operation below 400 feet AGL.
- Autothrottle operation on approach below 400 feet AGL.

Figure 2

These limitations are additional to the limitations specified in paragraph (g) of the FAA AD 2021-23-12 (ref. 1.4) and paragraph (B) of the TCCA AD CF-2021-52 (ref. 1.3). Bombardier has already revised the AFM (see Table 1) to include language identical to that of figure 2 to paragraph (h) of FAA AD 2023-06-13. The use of these revisions should satisfy paragraph (h) of FAA AD 2023-06-13.

The AMOCs approved for TCCA AD CF-2021-52 (Ref. 1.3) or FAA AD 2021-23-12 (ref. 1.4), providing relief for specific radio altimeter installations, are also approved as AMOCs for the provisions of the TCCA AD CF-2022-61 (Ref. 1.1) and respectively FAA AD 2023-06-13 (Ref. 1.2).

4. ACTION:

Operators should be familiar with the information contained in this AW and Ref. 1.5.

In addition, all operators should make sure their flight crews are aware of the FON AVNC-038 (Ref. 1.6) regarding the radio altimeter flight restrictions when in the presence of 5G C-Band interference as identified by NOTAMs.

In order to comply with paragraph (h) of the FAA AD 2023-06-13 (Ref. 1.2), all the aircraft owner/operators flying in U.S airspace are required to carry the following AFM revision (or later) as applicable to their aircraft.

Aircraft Type	AFM publication	Applicable AFM revision (or later)	AFM release date (or later)
Global 7500	CSP 700-7000-1	Rev. 17	July 14, 2022

Table 1

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All operators and flight crews regardless of the registration of their aircraft should check NOTAMs for the US airports and airspace where they will be operating to ensure proper flight planning considering these restrictions.

Operators experiencing Radio Altimeter (RA) anomalies in US airspace should notify air traffic control, as soon as practical. Post flight, pilots are encouraged to submit detailed reports of RA disruptions or interference events, as soon as practical, using the Radio Altimeter Anomaly Reporting Form available on the FAA website (https://www.faa.gov/air_traffic/nas/RADALT_reports/).

Operators will be kept updated via a revision of this AW as new information is made available. Especially, on the Bombardier process to obtain an Alternate Means of Compliance (AMOC) to allow operators to carry and operate to the limitations outlined in the subject FAA AD (Ref. 1.2) separately from the AFM in either electronic or physical form on board the aircraft.

Should you have any questions pertaining to this AW or require additional information, please contact your Bombardier Field Service Representative (FSR) or the Customer Response Centre (CRC).