



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-2025-55

Effective Date:

19 November 2025

ATA:

34

Type Certificate:

A-142

Subject:

Navigation – 5G C-Band wireless Broadband Interference with Radio Altimeter System when operating in Canadian airspace.

Applicability:

De Havilland Aircraft of Canada Limited (formerly Bombardier Inc.) model DHC-8-401 and DHC-8-402 aeroplanes, all serial numbers, when operating in Canadian Airspace

Compliance:

As indicated below, unless already accomplished.

Background:

De Havilland Aircraft of Canada has determined that 5G C-Band broadband interference can result in erroneous radio altimeter data when operating in Canadian airspace affected by 5G C-Band wireless signals which could affect specific systems.

In July 2023, Innovation, Science and Economic Development Canada (ISED), Canada's spectrum regulator, published Standard Radio System Plans (SRSP)-520 Issue 3 and Radio Standard Specifications (RSS)-192 Issue 5. These publications define the spectrum environment for the 5G C Band in Canada. The spectrum auctions for 5G C-Band in the 3.45 to 3.65 GHz (3.5 GHz) and the 3.65- 3.9 GHz (3.8 GHz) band were completed in 2021 and 2023, respectively. Deployment in the 3.8 GHz band occurred in May 2024. Furthermore, ISED recently concluded a consultation on noncompetitive local licensing (NCL) framework for operation in the frequency bands of 3.9 to 3.98 GHz.

The frequency bands allocated to these services are close to those used by aeroplanes' radio altimeters (4.2 to 4.4 GHz). Transport Canada (TC) has determined that radio altimeters cannot be relied upon to perform their intended function if they experience interference from wireless broadband operations in the 3.45 to 3.98 GHz (5G C-Band).

Based on ISED's resolutions regarding the Canadian spectrum environment, TC has determined that aeroplanes equipped with radio altimeters deemed compliant with the Federal Aviation Administration (FAA) AD 2023-10-02, are less susceptible to 5G interference in the Canadian environment, considering the existing spectrum mitigations. To protect aviation safety, TC issued AD CF-2024-14, which defines radio altimeter tolerant aeroplanes and mandates limitations of operations with non-tolerant radio altimeter when operating in the entire Canadian airspace.

Transport Canada does not anticipate having the capability to assess the actual risk of interference by tracking 5G deployment locations in Canada. Therefore, to protect aviation safety, this AD mandates limitations that must be applied everywhere 5G deployment is permitted – the entire Canadian airspace.

Given the sunset of certain spectrum mitigations in January 2026 and January 2028, it is not certain that a standard can be established for radio altimeter tolerant aeroplanes to the full scope of 5G emissions permitted in Canada after January 2026. This AD is considered interim action, and further AD action may follow.

As terminating action to maintain safe operation for specific systems, this AD CF-2025-55 requires aeroplanes operating in the Canadian airspace to be configured as Radio Altimeter Tolerant aeroplanes.

In order to mitigate the risk of 5G interference, until the aeroplane is **Radio Altimeter Tolerant Aeroplane** configured, Part I, II and III of this AD require certain additional requirements to be followed when operating with Airplane Flight Manual (AFM) supplements 37, 39 or 77.

This AD also prohibits the use of an affected minimum equipment list item, requires placarding of the console and reinforces existing AFM limitations.

Corrective Actions:

For purposes of this AD, the following definitions apply:

Radio Altimeter Tolerant Aeroplane is one for which the radio altimeter, as installed, demonstrates the tolerances for emissions in Part I paragraphs A.1 and A.2. of AD CF-2023-46, dated 26 June 2023, using a method approved by the FAA or TC. Currently, aeroplanes that meet the requirements of the FAA definition of "radio altimeter tolerant airplane", as per Paragraph (g) Definitions of FAA AD 2023-10-02, are considered radio altimeter tolerant aeroplanes.

Non-Radio Altimeter Tolerant Aeroplane is one for which the radio altimeter, as installed, does not demonstrate the tolerances for emissions specified in Part I paragraphs A.1 and A.2. of AD CF-2023-46, dated 26 June 2023. Currently, aeroplanes that meet the requirements of the FAA definition of "non-radio altimeter tolerant airplane", as per Paragraph (g) Definitions of FAA AD 2023-10-02, are considered non-radio altimeter tolerant aeroplanes.

Part I – Mitigating Actions: Applicable to Non-Radio Altimeter Tolerant Aeroplane Configurations

Within 53 days from the effective date of this AD:

- A. When operating in accordance with AFM Supplement 37 – Supplementary Performance Information for Operation on Contaminated Runways:

To dispatch or release to airports in Canadian airspace in the presence of 5G C-Band wireless broadband interference, the landing performance with flaps at 35° on contaminated runways must be calculated using the data provided in AFM Temporary Amendment No. 7, which states:

- a. The unfactored landing distance required on a contaminated runway, obtained from Figure 6-37-22, must be increased by 400 ft.

- B. When operating in accordance with AFM Supplement 39 – Noise Abatement Procedures and Performance (Landing With 850 Propeller RPM):

- a. With the REF SPEEDS switch selected to INCR, flap 35° landing with reduced RPM is prohibited.

- C. When operating in accordance with AFM Supplement 77 – Supplementary Performance Information for Operation on Contaminated Runways with Measured Friction Values:

- a. For landing with flap 35°, the unfactored landing distance required on a contaminated runway using values taken from Figure 6-77-10, is prohibited.

- D. Operational Landing Distance (OLD): .

- a. For landing with Flap 35° on contaminated runways, if any revisions of the DHC Technical Operations Document (TOD) listed in Table 1 are used, the landing distance referenced therein must be increased by 810 ft.

TABLE 1 – Technical Operations Documents

Technical Operations Document	Revision	Release Date
TOD-8400-OLD-FAA-IMP-01	Rev. 01	26 June 2018
TOD-8400-OLD-FAA-IMP-02	Rev. 02	21 June 2019
TOD-8400-OLD-FAA-IMP-03	Rev. 03	15 November 2021
TOD-8400-OLD-FAA-IMP-03A	Rev. 03A	30 August 2022

Operators using other than De Havilland Aircraft of Canada supplied operational landing distance information available from third party sources must contact their respective providers to ensure this third party supplied operational landing distance guidance, when operating in the Canadian airspace while in the presence of 5G C-band interference, is valid.

Part II – Mitigating Action - Beta Lockout System and Beta Warning Horn Applicable to Non-Radio Altimeter Tolerant Aeroplane Configurations:

Within 53 days from the effective date of this AD,

- A. Install label Part Number (P/N) 81151129-101 in the cockpit, in the vicinity of the power levers in accordance with the Accomplishment Instructions in Section 3.B of Service Bulletin (SB) 84-11-57, Revision NC, dated 31 March 2023, or later revisions approved by the Chief, Continuing Airworthiness.
- B. Brief all flight crew of the potential for inhibition of the Beta Lockout System and Warning Horn systems in the presence of 5G wireless interference and the necessity to strictly comply with the following AFM limitations and procedures:
 - a. Existing AFM Engine Airborne Operating Limitation 2.5.8 prohibiting in-flight operation of power levers aft of the Flight Idle.
 - b. AFM Normal Landing procedure 4.4.1 delaying selection of power levers from Flight Idle to DISC until after touchdown has been positively identified.

Part III – MEL Prohibition Applicable to Non-Radio Altimeter Tolerant Aeroplane:

Within 53 days from the effective date of this AD :

- A. It is prohibited to dispatch or release into or out of airports in Canada under the Minimum Equipment List (MEL) item corresponding to the Master Minimum Equipment List (MMEL) item 32-40-02 Anti-Skid System.

Part IV – Terminating Action

Unless already accomplished and within 53 days from the effective date of this AD:

- A. Modify the aeroplane in accordance with the Accomplishment Instructions in Section 3.B of the applicable De Havilland Aircraft of Canada SB listed in Table 2 below, or later revisions of the SBs approved by the Chief, Continuing Airworthiness, Transport Canada.

TABLE 2 – SB Required by Radio Altimeter Installed

Radio Altimeter installed	SB Number
Honeywell KRA 405B	84-34-240, Revision F, dated 13 January 2025
Collins ALT 4000	84-34-248 Revision B. dated 27 September 2024

Modifying the aeroplane as defined in Part IV of this AD, CF-2025-55 terminates the requirements specified by Part I, Part II and Part III of this AD.

Aeroplanes that have been modified in accordance with earlier revisions of these SBs meet the intent of this AD.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 5 November 2025

Contact:

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