



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-2025-54

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 affected by 5G C-Band wireless signals.

Applicability:

De Havilland Aircraft of Canada (formerly Bombardier Inc.) model DHC-8-100/-200/-300 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 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-2025-54 requires aeroplanes operating in the Canadian airspace to be configured as Radio Altimeter Tolerant (RAT) aeroplanes.

In order to mitigate the risk of the specific 5G interference effects until the aeroplane is RAT configured; this AD requires placarding of the console and reinforces existing AFM limitations and procedures reiterated in Part I B.

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. 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. 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 Action - Beta Lockout System and Beta Warning Horn: Applicable to non-radio altimeter tolerant aeroplanes:

Unless already accomplished, 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 3B Service Bulletin (SB) 8-11-115, Revision A, dated 3 December 2012 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:
 - i. Existing AFM Engine Airborne Operating Limitation 2.5.8 prohibiting in-flight operation of power levers aft of the Flight Idle.
 - ii. 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 II – Terminating Action - Radio Altimeter Modification: Applicable to non-radio altimeter tolerant aeroplanes:

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

- A. For aeroplanes operating in Canadian airspace, fitted with either a single or dual Honeywell RT-300 radio altimeter model, modify the aeroplane in accordance with the Accomplishment Instructions in Section 3 of the applicable DeHavilland Aircraft of Canada SB(s) listed in Table 1 as applicable, or later revisions of the SB approved by the Chief, Continuing Airworthiness, Transport Canada.
- B. Modifying the aeroplane as defined in Paragraph A. Part II of this AD terminates the requirements specified by Part I of this AD.

TABLE 1 – Applicable SB's by Aeroplane Program

Aeroplane Program	Radio Altimeter	SB Numbers
DHC-8-300	RT-300 Single	8-34-256 A – 11 December 2024
DHC-8-300	RT-300 Dual	8-34-254B -- 2 May 2024 8-53-87B -- 6 May 2024
DHC-8-100/200	RT-300 Single	8-34-257A -- 10 Feb 2025 8-53-90A -- 28 Feb 2025
DHC-8-100/200	RT-300 Dual	8-34-258 -- 25 Sep 2024 8-53-89 -- 16 Aug 2024

Aeroplanes that have been modified in accordance with earlier revisions of these service bulletins 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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