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-2025-31

Effective Date:

14 July 2025

ATA:

34

Type Certificate:

A-276

Subject:

Navigation – Radio Altimeter System – Introduction of a Radio Frequency Filter to Decrease Risk of Interference from 5G C-Band Wireless Telecommunication Service on the Radio Altimeter System When Operating in Canada.

Applicability:

MHI RJ Aviation ULC. (MHIRJ) (formerly Bombardier Inc.) aeroplanes:

Model CL-600-2B19, serial numbers 7002 through 8113;

Model CL-600-2C10 and CL-600-2C11, serial numbers 10002 through 10999;

Model CL-600-2D15 and CL-600-2D24, serial numbers 15001 through 15990;

Model CL-600-2E25, serial numbers 19001 through 19990.

Compliance:

As indicated below, unless already accomplished.

Background:

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 as early as May 2024. Furthermore, ISED recently concluded a consultation on non-competitive local licensing (NCLL) 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

Certain Engine Indicating and Crew Alerting System (EICAS) failure messages and aural alerts, may be inhibited longer than intended, if the RAD ALT experiences interference from wireless broadband operations in the 5G C-Band.

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 CF-2025-31 is considered an interim action, and further AD action may follow.

Corrective Actions:

Part I – Applicable to Model CL-600-2B19 Aeroplanes:

A. From the effective date of this AD and no later than January 1, 2026, perform the installation of the Radio Frequency (RF) bandpass filter on each operational Radio Altimeter in accordance with the accomplishment instructions of MHIRJ SB 601R-34-152, Revision F, dated 18 December 2024 or later revisions approved by the Chief, Continuing Airworthiness, TC.

   a. Aircraft with dual RAD ALT will comply with this AD provided:
      i. The filter is installed on RAD ALT 1 and RAD ALT 2 is deactivated per the instructions in the SB, or
      ii. The filter is installed on both RAD ALT 1 and RAD ALT 2
      iii. If RAD ALT 2 is deactivated, the aircraft will remain compliant after later re-activation provided the filter is installed on RAD ALT 2.

Part II – Applicable to Models CL-600-2C10, CL-600-2C11, CL-600-2D15 and CL-600-2D24 Aeroplanes:

A. From the effective date of this AD and no later than January 1, 2026, perform the installation of the RF bandpass filter on each operational Radio Altimeter in accordance with the accomplishment instructions of MHIRJ SB 670BA-34-054, Revision F, dated 18 December 2024, or later revisions approved by the Chief, Continuing Airworthiness, TC.

   a. Aircraft with dual RAD ALT will comply with this AD provided:
      i. The filter is installed on RAD ALT 1 and RAD ALT 2 is deactivated per the instructions in the SB, or
      ii. The filter is installed on both RAD ALT 1 and RAD ALT 2
      iii. If RAD ALT 2 is deactivated, the aircraft will remain compliant after later re-activation provided the filter is installed on RAD ALT 2.

Part III – Applicable to Model CL-600-2E25 Aeroplanes:

A. From the effective date of this AD and before next flight in Canada, perform the installation of the RF bandpass filter on both Radio Altimeter in accordance with the accomplishment instructions of MHIRJ SB 670BA-34-054, Revision F, dated 18 December 2024, or later revisions approved by the Chief, Continuing Airworthiness, TC.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 30 June 2025

Contact:

Philip Lynch, Continuing Airworthiness, Ottawa, telephone 888-663-3639 or e-mail TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca or any Transport Canada Centre.