



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-2023-62

Effective Date:

31 August 2023

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 the Contiguous United States Airspace.

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:

Radio altimeters (RAD ALT) cannot be relied upon to perform their intended function if they experience interference from wireless broadband operations in the 3.7-3.98 GHz frequency band (5G C-Band).

The Federal Aviation Administration (FAA) issued AD 2023-10-02 to prohibit certain flight operations requiring RAD ALT data when operating in the contiguous United States of America (U.S.) airspace due to 5G C-Band broadband interference. In addition, the AD states that as of February 1, 2024, aeroplanes that are non-radio tolerant to 5G C-Band must not operate under 14 CFR Part 121.

Transport Canada Civil Aviation (TCCA) issued AD CF-2023-46 to apply similar limitations to those of FAA AD 2023-10-02 for Canadian registered aeroplanes, that are not of U.S. state of design, when operating in contiguous U.S. airspace.

In addition to the effects of 5G C-band broadband interference identified in both FAA AD 2023-10-02 and TCCA AD CF-2023-46, MHIRJ has determined that 5G C-Band broadband interference can result in certain failure messages and aural alerts being inhibited longer than intended. This condition, if not corrected could result in delayed crew response leading to loss of continued safe flight and landing.

This AD, CF-2023-62, requires the installation of a new radio frequency (RF) bandpass filter on the coaxial line between the RAD ALT and the receive antenna in the aft equipment compartment. For aeroplanes with dual RAD ALT, this AD, CF-2023-62 requires a filter to be installed on both systems unless RAD ALT 2 is deactivated until the second bandpass filter is installed. When the aeroplane is modified in accordance with this AD, the configuration with the RF bandpass filter installed has been determined to be RAD ALT tolerant by the FAA.

Corrective Actions:

For the purposes of this section of the AD, the following definition applies:

Service Bulletin (SB) 601R-34-152: MHIRJ SB 601R-34-152, Revision D, dated 11 May 2023, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

SB 670BA-34-054: MHIRJ SB 670BA-34-054, Initial Issue, dated 20 February 2023 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

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

- A. Within 2300 hours airtime or no later than 24 months from July 1, 2023, whichever occurs first, unless otherwise directed by the airworthiness authority of the operator, install the RF bandpass filter on each operational RAD ALT in accordance with the applicable sections of the Accomplishment Instructions of the SB 601R-34-152.

Aeroplanes with a dual RAD ALT configuration meet the intent of Part I of this AD provided the following applies:

1. The filter is installed on RAD ALT 1 and RAD ALT 2 is deactivated per the applicable sections of the accomplishment Instructions of the SB 601R-34-152, or
2. The filter is installed on both RAD ALT 1 and RAD ALT 2 in accordance with the applicable sections of the SB 601R-34-152.

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

- A. Within 2100 hours air time or no later than 24 months from July 1, 2023, whichever occurs first, unless otherwise directed by the airworthiness authority of the operator, Install the RF bandpass filter on each operational RAD ALT, in accordance with the applicable sections of the Accomplishment Instructions of SB 670BA-34-054.

Aeroplanes with a dual RAD ALT configuration meet the intent of Part I of this AD provided the following applies:

1. The filter is installed on RAD ALT 1 and RAD ALT 2 is deactivated per the applicable sections of the Accomplishment Instructions of the SB 670BA-34-054, or
2. The filter is installed on both RAD ALT 1 and RAD ALT 2 in accordance with the applicable sections of the Accomplishment Instructions of the SB 670BA-34-054.

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

Prior to next flight in the contiguous U.S. airspace, install the RF bandpass filter on both RAD ALTs in accordance with the applicable sections of the Accomplishment Instructions of SB 670BA-34-054.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 17 August 2023

Contact:

Philip Lynch, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca or any Transport Canada Centre.