



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-2023-47

Effective Date:

30 June 2023

ATA:

34

Type Certificate:

A-236

Subject:

Navigation – Minimum Equipment List (MEL) Item Prohibitions in the Presence of 5G C-Band Wireless Broadband Interference

Applicability:

Airbus Canada Limited Partnership (ACLPL) (formerly C Series Aircraft Limited Partnership (CSALP), Bombardier Inc.) aeroplanes:

Model BD-500-1A10, all serial numbers,

Model BD-500-1A11, all serial numbers.

Compliance:

Within 10 days from the effective date of this AD, unless already accomplished.

Background:

The FAA issued AD 2023-10-02 to prohibit certain flight operations requiring radio altimeter data when operating in the contiguous United States of America (U.S.) airspace affected by 5G C-Band wireless signals. Airbus Canada has determined that 5G C-Band broadband interference can result in unavailable or misleading radio altimeter information, which in combination with dispatch under certain MEL items and an additional failure, could result in a reversion to ground mode in air or the deployment of ground spoilers in the air.

This AD is issued to prohibit operation under certain MEL items at airports where harmful interference due to 5G C-band is possible.

Corrective Actions:

- A. For the purposes of this AD, the following definitions apply:
 - a. A **5G C-Band mitigated airport (5G CMA)** is an airport at which the telecommunications companies have agreed to voluntarily limit their 5G deployment at the request of the FAA, as identified by an FAA Domestic Notice.
 - b. A **radio altimeter tolerant airplane** is one for which the radio altimeter, as installed, demonstrates the tolerances specified in paragraphs A.b.i and A.b.ii. of this AD, using a method approved by the FAA or Transport Canada.
 - i. Tolerance to radio altimeter interference, for the fundamental emissions (3.7–3.98 GHz), at or above the power spectral density (PSD) curve threshold specified in Figure 1 of this AD.
 - ii. Tolerance to radio altimeter interference, for the spurious emissions (4.2–4.4 GHz), at or above the PSD curve threshold specified in Figure 2 of this AD.

- c. A **non-radio altimeter tolerant airplane** is one for which the radio altimeter, as installed, does not demonstrate the tolerances specified in paragraphs A.b.i and A.b.ii. of this AD.
- d. **Applicable MEL Items** refer to the following list of MEL items:
 - i. 32-00-047-01, 32 BRAKE FAULT - BDCU 1 NORM INOP;
 - ii. 32-00-049-01, 32 BRAKE FAULT - BDCU 2 NORM INOP;
 - iii. 32-00-015-01, 32 WOW FAULT - L GEAR WOFFW REDUND LOSS; and
 - iv. 32-00-017-01, 32 WOW FAULT - R GEAR WOFFW REDUND LOSS.

Figure 1 - Fundamental Effective Isotropic PSD at Outside Interface of Aircraft Antenna

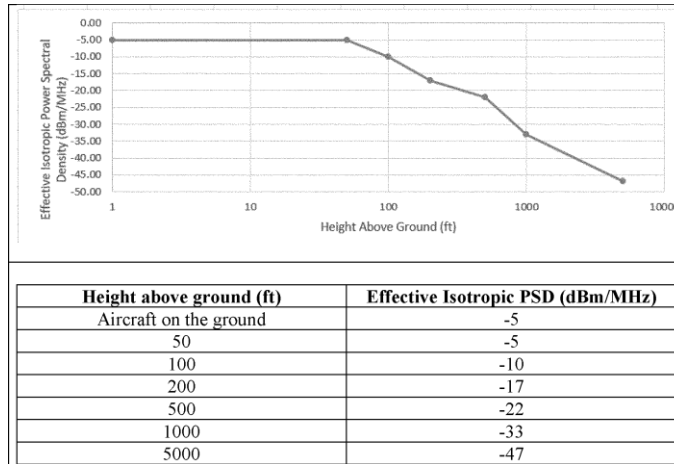
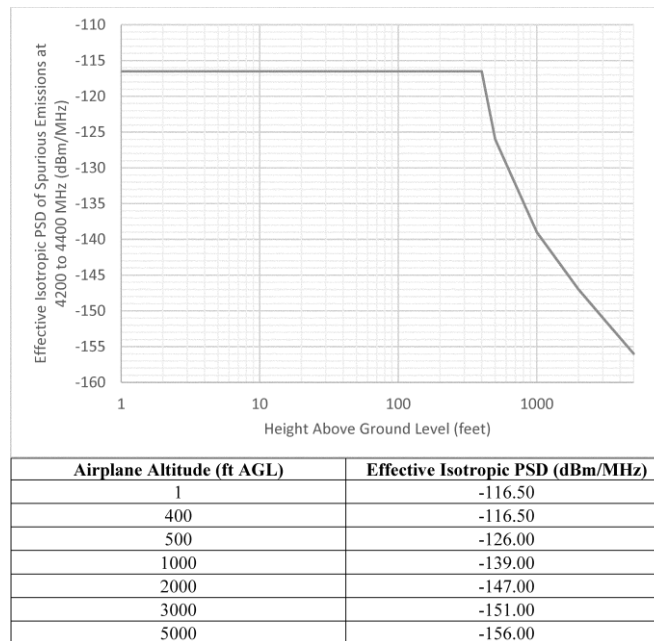


Figure 2 - Spurious Effective Isotropic PSD at Outside Interface of Airplane Antenna



- B. For Non-Radio Altimeter Tolerant Aeroplanes: it is prohibited to dispatch or release into or out of airports in the contiguous U.S. airspace under the applicable MEL items defined in this AD.
- C. For Radio Altimeter Tolerant Aeroplanes: it is prohibited to dispatch or release into or out of airports in the contiguous U.S. airspace under the applicable MEL items defined in this AD, unless operating at a 5G CMA as identified in an FAA *Domestic Notice*.
- D. These limitations also apply when considering diversion airports after subsequent MEL dispatch, but is not intended to limit diversion options after an inflight failure.

- E. AMOCs approved for AD CF-2021-52 or FAA AD 2021-23-12, providing relief for specific radio altimeter installations, are also approved as AMOCs for the provisions of Paragraphs B, C and D of this AD until 30 June 2023.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 26 June 2023

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