



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Aviation Safety  
Aircraft Certification Service  
Compliance & Airworthiness Division

Operational Safety Branch  
10101 Hillwood Pkwy  
Fort Worth, TX 76177

*January 26, 2023*

In Reply  
Refer To: 720-23-00037

Ms. Soumia Miloudi  
Section Chief, Challenger Airworthiness  
Bombardier Inc.  
400 Côte-Vertu Road West  
Dorval, Québec, Canada H4S 1Y9

Reference: AW-CON-22-170, dated December 8, 2022

Subject: Approval of Alternative Method of Compliance (AMOC) to Airworthiness  
Directive (AD) 2021-23-12

Dear Ms. Miloudi:

The Federal Aviation Administration (FAA) has received your letter referenced above, proposing an AMOC to paragraph (g) of AD 2021-23-12. That AD requires updating the Airplane Flight Manual to prohibit certain operations requiring radio altimeter in the presence of 5G C-Band interference as identified by Notice to Air Missions (NOTAMs).

This letter supersedes the previously issued AD AMOC letter 720-22-10792A, dated October 27, 2022. We have evaluated the data provided in consideration of the frequency band of 3.7-3.98 GHz. This approval does not identify an expiration date. However, this approval does refer to an addendum that does expire but allows for the use of later FAA-approved revisions to the addendum.

Your proposal provides an acceptable level of safety, since the test data you submitted for certain radio altimeters demonstrates that these radio altimeters can accurately perform their intended function when operating beyond a certain variable protection radius around 5G C-Band transmitters. The FAA has used your test substantiated radio altimeter protection radius in conjunction with the runway protection areas to generate the list of runways that your aircraft, equipped with certain radio altimeters, can safely operate at because the susceptibility to interference from 5G C-band emissions has been minimized.

The Manager of the Operational Safety Branch approves your proposal to allow operation of the Bombardier Model airplanes in the following table equipped with the Collins Aerospace ALT-1000 and/or ALT-4000 radio altimeters to the airports and runways listed in the

attached addendum as an AMOC to paragraph (g) of AD 2021-23-12 in areas identified by NOTAMs. This applies to airports listed in the Aerodrome NOTAM current as of the date of the 5G Cleared Airport Runway List 720-23-00037-RL, Rev 0, dated January 26, 2023, or later FAA Approved Revision, considering the radio altimeter Variable Protection Radius (also known informally as the V3 method).

| Aircraft Make: Bombardier<br>Aircraft Model:<br>(See Note 1)                                                                                                                    | Radio<br>Altimeter<br>Manufacturer | Radio<br>Altimeter<br>Model | Radio Altimeter<br>Part Number<br>(See Note 2)               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------------------------|--------------------------------------------------------------|
| BD-100-1A10<br>BD-700-1A10<br>BD-700-1A11<br>BD-700-2A12<br>CL-600-2B16 (S/N 5301-<br>5699, 5701-5990, and 6050<br>and subsequent)                                              | Collins<br>Aerospace               | ALT-4000                    | 822-0615-003<br>822-0615-202<br>822-0615-206<br>822-0615-207 |
| CL-600-2B16 (S/N 5301-<br>5699, 5701-5990, and 6050<br>and subsequent)                                                                                                          | Collins<br>Aerospace               | ALT-1000                    | 822-1939-001<br>822-1939-005                                 |
| Note 1: All Bombardier commercial derivative models with ALT-1000<br>and/or ALT-4000 certification.<br>Note 2: Approval only applicable to radio altimeter part numbers listed. |                                    |                             |                                                              |

In accordance with FAA Order 8110.103B, the following limitations apply to this AMOC:

1. All provisions of AD 2021-23-12 that are not specifically referenced above remain fully applicable and must be complied with accordingly.
2. This approval is applicable only to the model of airplanes and radio altimeters listed above.
3. This FAA AMOC is transferable with the aircraft to another owner/operator.
4. Before using this AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local Flight Standards District Office/Certificate Holding District Office.
5. This AMOC only applies to the FAA AD listed above. The FAA does not have the authority to approve this as an AMOC to any AD issued by another civil aviation authority (CAA). Approval of an AMOC to another CAA's AD must come from that CAA. A copy of this response will be forwarded to the CAA where these aircraft are registered for their consideration.
6. This approval is not time limited. However, this approval references an addendum that is time limited and is not applicable after the expiration date. Refer to 5G

Cleared Airport Runway List 720-23-00037-RL, Rev 0, dated January 26, 2023, or later FAA Approved Revision, for a list of airports and runways and for the expiration date.

7. This approval does not affect other airplane operating limitations not addressed in the AD referenced above, with the following exception; This AMOC is a valid AMOC for other ADs that contain the language, "AMOCs approved for AD 2021-23-12, Amendment 39-21810 (86 FR 69984, December 9, 2021) providing relief for specific radio altimeter installations are approved as AMOCs for the provisions of this AD."
8. This AMOC approval and the referenced addendum is subject to change and may be rescinded at any time.

If you have any questions, or need additional information, please contact Brett Portwood, Continued Operational Safety Technical Advisor, by telephone at (562) 627-5350, or by email at [brett.portwood@faa.gov](mailto:brett.portwood@faa.gov).

Sincerely,

<sup>FOR</sup> Michael Linegang  
Manager, Operational Safety Branch  
Compliance & Airworthiness Division  
Aircraft Certification Service

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Enclosure: 720-23-00037-RL, Rev 0