



適航指令發布單

Airworthiness Directive Issuance Form

民航局 AD 編號 AD number	CAA-2022-11-003	發布日期 Date issued	2022/11/9
適用之航空產品 Applied to (models, serial numbers or part numbers, as applicable)	Bombardier Inc. model BD-700-2A12 aeroplanes, all serial numbers.		
主旨摘要 Subject	Navigation - Airplane Flight Manual Limitations and Master Minimum Equipment List Item Prohibitions in the Presence of 5G C-Band Wireless Broadband Interference		
<div style="text-align: center;">民航局 CAA</div> <input type="checkbox"/> 本國產品 Native product <input type="checkbox"/> 其他個案 Other	<div style="text-align: center;">設計國民航主管機構 Original Authority</div> <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <input type="checkbox"/> FAA <input type="checkbox"/> EASA <input type="checkbox"/> Brazil <input checked="" type="checkbox"/> Transport Canada Civil Aviation <input type="checkbox"/> DGAC </div> <div style="width: 48%;"> <input type="checkbox"/> Germany LBA <input type="checkbox"/> CAA-NL <input type="checkbox"/> UK CAA <input type="checkbox"/> Japan CAB <input type="checkbox"/> CAA of Israel <input type="checkbox"/> Other _____ </div> </div>		
	設計國 AD 編號 Original AD number	CF-2022-61	
	1. 直接採用原 AD 之內容?(Is the original AD directly adopted?) <input checked="" type="checkbox"/> 是(Yes) <input type="checkbox"/> 否(No) _ a. 生效日期另訂為(Re-specify the effective date as) : _____ b. 執行時限另訂為(Re-specify the compliance time or period as) : _____ 2. 使用人是否需要將 AD 執行結果向民航局提出報告?(Do Users need to report the status of compliance to the CAA?) <input type="checkbox"/> 是(Yes) <input checked="" type="checkbox"/> 否(No)		
備註 Note	ATA 34. Reference to Airplane Flight Manual (AFM) Limitations and Master Minimum Equipment List (MMEL) Item or AMOCs approved for AD CF-2021-52 or FAA AD 2021-23-12.		
註： 1. AD 內容後附。 2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。 3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6330 / 6332, Fax：(02)2545-8464, e-mail： adcaa@mail.caa.gov.tw Note： 1. The AD text is enclosed. 2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval. 3. For further information, please contact Civil Aeronautics Administration on Tel：(02)2349-6330 / 6332, Fax：(02)2545-8464, e-mail： adcaa@mail.caa.gov.tw			



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-2022-61

Effective Date:

18 November 2022

ATA:

34

Type Certificate:

A-177

Subject:

Navigation – Airplane Flight Manual (AFM) Limitations and Master Minimum Equipment List (MMEL) Item Prohibitions in the Presence of 5G C-Band Wireless Broadband Interference

Applicability:

Bombardier Inc. model BD-700-2A12 aeroplanes, all serial numbers.

Compliance:

Within 30 days from the effective date of this AD, unless already accomplished.

Background:

Transport Canada Civil Aviation (TCCA) issued AD CF-2021-52 to prohibit certain flight operations requiring radio altimeter data when operating in the United States of America (U.S.) airspace affected by 5G C-Band wireless signals, as identified by Notice to Airmen/Air Missions (NOTAM) and in accordance with Federal Aviation Administration (FAA) AD 2021-23-12. Bombardier has determined that 5G C-Band broadband interference can result in unavailable or misleading radio altimeter information, adversely affecting the performance of the automatic flight control system (AFCS) and fly-by-wire (FBW) systems. This may lead to increased flight crew workload and adversely affect the safe operation of the aeroplane during takeoff, approach, and landing.

This AD requires amendment of the AFM with new limitations and prohibits dispatch under certain MMEL items to mitigate identified hazards due to harmful 5G C-Band broadband interference, when operating at airports where 5G is deployed as identified by NOTAM.

Corrective Actions:

- A. Applicable to all aeroplanes identified in the Applicability section of this AD: It is prohibited to dispatch or release into or out of airports in U.S. airspace in the presence of 5G C-Band wireless broadband interference as identified by NOTAM (NOTAMs will be issued to state the specific airports where the radio altimeter is unreliable due to the presence of 5G C-Band wireless broadband interference) under the following MMEL items:
 - a. Section 1 Line Replaceable Unit (LRU) Component Relief:
 - i. 32-43-33 – MAIN WHEEL AXLE-INTERFACE-MODULE/WHEEL SPEED TRANSDUCER 1) WHEEL SPEED TRANSDUCER
 - ii. 32-61-09 – MAIN LANDING GEAR WEIGHT ON WHEELS PROXIMITY SWITCHES
 - iii. 34-44-00 – RADIO ALTIMETER SYSTEM
 - b. Section 2 Crew Alerting System (CAS) Message Relief:
 - i. 27-0645 – 27 FLT CTRL – PFCC BCU INPUT REDUND LOSS
 - ii. 27-0660 – 27 FLT CTRL – PFCC LGSCU INPUT REDUND LOSS
 - iii. 27-0665 – 27 FLT CTRL – PFCC RAD ALT INPUT REDUND LOSS
 - iv. 32-0048 – 32 GEAR – GEAR WOW / WOFFW REDUND LOSS

- v. 32-1005 – ANTISKID DEGRADED (CAUTION)
- vi. 34-1200 – RAD ALT 1 FAIL (Advisory)

B. Applicable to serial numbers 70001 through 70110 and 70112: Amend the applicable Transport Canada approved AFM by incorporating the following chapter, in accordance with AFM publication CSP 700-7000-1, Revision 19, dated 17 October 2022, or later revisions approved by Transport Canada:

- a. Chapter 2 – Limitations, Section 8 Systems, C. Automatic Flight Control System

Amending the applicable Transport Canada approved AFM, before the effective date of this AD, in accordance with AFM publication CSP 700-7000-1, Revision 18, dated 18 August 2022, or Revision 17, dated 14 July 2022, also satisfies the requirements of paragraph B. of this AD.

C. 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 this AD.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Robert Farinas
Acting Chief, Continuing Airworthiness
Issued on 4 November 2022

Contact:

Daniel Gosselin, 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.