period of paragraph (e)(2)(iii)(C) of this section.

(3) *Results of exceeding engine-operating limits.* Applicants must show that an unsafe condition will not result if any engine-operating limit is exceeded during the run-on period.

(4) *Combining tests.* The climb flocking bird test of paragraph (e)(1) of this section may be combined with the medium flocking bird test of paragraph (c) of this section, if the climb first stage rotor speed calculated in paragraph (e)(1) of this section is within 3 percent of the first stage rotor speed required by paragraph (c)(1) of this section. As used in this paragraph (e)(4), ''combined'' means that, instead of separately conducting the tests specified in paragraphs (c) and (e)(1) of this section, the test conducted under paragraph (c) of this section satisfies the requirements of paragraph (e) of this section if the bird aimed at the core of the engine meets the bird ingestion speed criteria of paragraph (e)(1)(i)(C) of this section.

Issued under authority provided by 49 U.S.C. 106(f), 44701(a), and 44704 in Washington, DC, on or about March 23, 2023.

Billy Nolen,

Acting Administrator.

[FR Doc. 2023–06413 Filed 4–3–23; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2023–0655; Project Identifier MCAI–2022–01435–T; Amendment 39–22399; AD 2023–06–13]

RIN 2120–AA64

Airworthiness Directives; Bombardier, Inc., Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Bombardier, Inc., Model BD–700–2A12 airplanes. This AD was prompted by the determination that radio altimeters 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), and a recent determination that this 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 and resulting in increased flightcrew workload during takeoff, approach, and landing below 400 feet above ground level (AGL). This AD requires revising the existing airplane flight manual (AFM) with new limitations to mitigate identified hazards due to 5G C-Band interference as identified by Notices to Air Missions (NOTAMs). The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective April 19, 2023.

The FAA must receive comments on this AD by May 19, 2023.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- *Federal eRulemaking Portal:* Go to *regulations.gov*. Follow the instructions for submitting comments.
- *Fax:* 202–493–2251.
- *Mail:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- *Hand Delivery:* Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

AD Docket: You may examine the AD docket at *regulations.gov* under Docket No. FAA–2023–0655; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: William Reisenauer, Aerospace Engineer, Avionics and Electrical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516–228–7300; email *9-avs-nyaco-cos@faa.gov.*

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this final rule. Send your comments to an address listed under **ADDRESSES**. Include ''Docket No. FAA–2023–0655; Project Identifier MCAI–2022–01435–T'' at the beginning of your comments. The most helpful comments reference a specific portion of the final rule, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to *regulations.gov*, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this final rule.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this AD contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this AD, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as ''PROPIN.'' The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this AD. Submissions containing CBI should be sent to William Reisenauer, Aerospace Engineer, Avionics and Electrical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516–228–7300; email *9-avs-nyaco-cos@faa.gov.* Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued AD 2021–23–12, Amendment 39–21810 (86 FR 69984, December 9, 2021) (AD 2021–23–12), to address the effect of interference from wireless broadband operations in the 3.7–3.98 GHz frequency band (5G C-Band) on all transport and commuter category airplanes equipped with a radio (also known as radar) altimeter. AD 2021–23–12 was prompted by a determination that radio altimeters cannot be relied upon to perform their intended function if they experience interference from wireless broadband operations in the 5G C-Band. AD 2021–23–12 requires revising the limitations section of the existing AFM to incorporate limitations prohibiting certain operations, which require radio altimeter data to land in low visibility conditions, when in the presence of 5G C-Band interference as identified by

NOTAMs. Transport Canada, which is the aviation authority for Canada, issued corresponding AD CF–2021–52, dated December 24, 2021, to prohibit certain flight operations requiring radio altimeter data in U.S. airspace affected by 5G C-Band wireless signals.

Since Transport Canada issued AD CF–2021–52, Transport Canada evaluated whether additional 5G-related hazards exist in certain Bombardier model airplanes. Bombardier has determined that 5G C-Band interference can result in unavailable or misleading radio altimeter information, adversely affecting the performance of the AFCS and FBW systems as follows:

- Erroneous radio altimeter information has the potential to cause incorrect gains on approach, flight guidance oscillation, and crew over-correction. The flight director uses the glideslope to linearize the angular deviation and if the radio altimeter erroneously changes to an incorrect value, the resulting pitch command may be inadequate, resulting in flight path oscillations.
- Misleading radio altimeter information can adversely impact the autothrottle function, resulting in early or late activation of the retard mode, leading to an inappropriate level of thrust. This may result in a low energy state or longer landing distance. This malfunction will increase pilot workload as the crew disconnects the autothrottle and overrides the throttle levers.
- In the event of a weight-on-wheels (WOW) signal failure in combination with a related Master Minimum Equipment List (MMEL) dispatch, interference may result in the radio altimeter deploying the two pairs of ground spoilers at heights above 7 feet AGL.
- In the event of a WOW signal failure in combination with certain related MMEL dispatch associated with Section 2 Crew Alerting System (CAS) message relief, a takeoff rotation delay is significant and could compromise safe flight and landing.

These effects may lead to increased flightcrew workload and adversely affect the safe operation of the airplane during takeoff, approach, and landing below 400 feet AGL. Accordingly, Transport Canada determined that additional actions are necessary to address the unsafe condition and issued AD CF–2022–61, dated November 4, 2022 (Transport Canada AD CF–2022–61) (also referred to after this as ''the MCAI''), on all Bombardier, Inc., Model BD–700–2A12 airplanes. Transport Canada AD CF–2022–61 prohibits dispatch or release under certain MMEL items under Section 1, Line Replaceable Unit (LRU) Component Relief, and Section 2, Crew Alerting System (CAS) Message Relief. Transport Canada AD CF–2022–61 also requires revising the AFM with new limitations to prohibit autopilot and autothrottle operation below 400 feet AGL when in the presence of 5G C-Band interference as identified by NOTAMs.

You may examine the MCAI in the AD docket at *regulations.gov* under Docket No. FAA–2023–0655.

FAA's Determination

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI described above. The FAA is issuing this AD after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

AD Requirements

This AD requires revising the existing AFM with new limitations to prohibit dispatch under specified MMEL items under Section 1, Line Replaceable Unit (LRU) Component Relief, and Section 2, Crew Alerting System (CAS) Message Relief and to prohibit autopilot and autothrottle operation below 400 feet AGL when in the presence of 5G C-Band interference as identified by NOTAMs.

Interim Action

The FAA considers this AD an interim action. If final action is later identified, the FAA might consider further rulemaking then.

Justification for Immediate Adoption and Determination of the Effective Date

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C. 551 *et seq.*) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for ''good cause,'' finds that those procedures are ''impracticable, unnecessary, or contrary to the public interest.'' Under this section, an agency, upon finding good cause, may issue a final rule without providing notice and seeking comment prior to issuance. Further, section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies forgoing notice and comment prior to adoption of this rule because radio altimeters cannot be relied upon to perform their intended function if they experience interference from wireless broadband operations in the 5G C-Band. Further, this interference can result in unavailable or misleading radio altimeter information, adversely affecting the performance of the AFCS, which could lead to increased flightcrew workload and adversely affect the safe operation of the airplane during takeoff, approach, and landing. The required actions to address the unsafe condition must be accomplished within 30 days, which is shorter than the time necessary to allow for public comment and for the FAA to publish a final rule. Accordingly, notice and opportunity for prior public comment are impracticable and contrary to the public interest pursuant to 5 U.S.C. 553(b)(3)(B).

In addition, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days, for the same reasons the FAA found good cause to forgo notice and comment.

Regulatory Flexibility Act

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because the FAA has determined that it has good cause to adopt this rule without prior notice and comment, RFA analysis is not required.

Costs of Compliance

The FAA estimates that this AD affects 52 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

ESTIMATED COSTS FOR AFM REVISIONS

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
2 work-hours × $85 per hour = $170	$0	$170	$8,840

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a ''significant regulatory action'' under Executive Order 12866, and

(2) Will not affect intrastate aviation in Alaska.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2023–06–13 Bombardier, Inc.: Amendment 39–22399; Docket No. FAA–2023–0655; Project Identifier MCAI–2022–01435–T.

(a) Effective Date

This airworthiness directive (AD) is effective April 19, 2023.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Bombardier, Inc., Model BD–700–2A12 airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 34, Navigation.

(e) Reason

This AD was prompted by the determination that radio altimeters cannot be relied upon to perform their intended function if they experience interference from wireless broadband emissions in the 3.7–3.98 GHz frequency band (5G C-Band), and a recent determination that this 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 systems and resulting in increased flightcrew workload during takeoff, approach, and landing below 400 feet above ground level. The FAA is issuing this AD to address the resulting effects on the performance of the AFCS. The unsafe condition, if not addressed, could result in increased flightcrew workload and adversely affect the safe operation of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Revision of Existing Airplane Flight Manual (AFM): Master Minimum Equipment List (MMEL) Restrictions

Within 30 days after the effective date of this AD, revise Chapter 2—Limitations, Section 8 Systems, C. Automatic Flight Control System, of the existing AFM to include the information specified in figure 1 to paragraph (g) of this AD.

Figure 1 to paragraph (g)—*MMEL Restrictions*

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Radio Altimeter 5G C-Band Interference, MMEL Restrictions

Dispatch or release is prohibited under the following MMEL Sections into or out of airports in U.S. airspace in the presence of 5G C-Band wireless broadband interference as identified by NOTAMs. (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.)

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)

(h) Revision of Existing AFM: AFCS

For airplane serial numbers 70001 through 70110 inclusive and 70112: Within 30 days after the effective date of this AD, revise Chapter 2—Limitations, Section 8 Systems, C. Automatic Flight Control System, of the existing AFM to include the information specified in figure 2 to paragraph (h) of this AD. Using a document with language identical to that of figure 2 to paragraph (h) of this AD is acceptable for compliance with the requirements of this paragraph.

Figure 2 to paragraph (h): *AFM Limitations revision*

When operating in U.S. airspace, the following operations are prohibited in the presence of 5G C-Band wireless broadband interference as identified by NOTAM, unless using an approved Alternate Means of Compliance (AMOC):

• Autopilot operation below 400 feet AGL.

• Autothrottle operation on approach below 400 feet AGL.

(i) Additional AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs):* The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the New York ACO Branch, mail it to ATTN: Program Manager, Continuing Operational Safety, at the address identified in paragraph (j)(2) of this AD or email to: *9-avs-nyaco-cos@faa.gov.* If mailing information, also submit information by email. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Previous AMOCs:* 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.

(3) *Contacting the Manufacturer:* For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada; or Bombardier, Inc.'s Transport Canada Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(j) Additional Information

(1) Refer to Transport Canada AD CF–2022–61, dated November 4, 2022, for related information. This Transport Canada AD may be found in the AD docket at *regulations.gov* under Docket No. FAA–2023–0655.

(2) For more information about this AD, contact William Reisenauer, Aerospace Engineer, Avionics and Electrical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516–228–7300; email *9-avs-nyaco-cos@faa.gov.*

(k) Material Incorporated by Reference

None.

Issued on March 23, 2023.

Christina Underwood,

Acting Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2023–07078 Filed 3–31–23; 4:15 pm]

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