



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2023-2402; Project Identifier MCAI-2023-00370-T; Amendment
39-22731; AD 2024-07-10]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc., Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Bombardier, Inc., Model CL-600-2B16 (604 Variant) airplanes. This AD was prompted by a report indicating that a new filter plate connector for the nose wheel steering (NWS) system electronic control module (ECM) does not meet certain certification requirements. This AD requires replacing all affected ECMs. This AD also prohibits the installation of affected parts under certain conditions. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-2402; 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 address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

- For service information identified in this final rule, contact Bombardier Business Aircraft Customer Response Center, 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-2999; email ac.yul@aero.bombardier.com; website bombardier.com.

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available at regulations.gov under Docket No. FAA-2023-2402.

FOR FURTHER INFORMATION CONTACT: Steven Dzierzynski, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: 516-228-7300; email: 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Bombardier, Inc., Model CL-600-2B16 (601-3A, 601-3R, and 604 Variants) airplanes. The NPRM published in the *Federal Register* on December 28, 2023 (88 FR 89633). The NPRM was prompted by AD CF-2023-14R1, dated May 15, 2023 (Transport Canada AD CF-2023-14R1) (referred to after this as the MCAI), issued by Transport Canada, which is the aviation authority for Canada. The MCAI states that the manufacturer of the NWS system ECM, part number (P/N) 601-86100-27, introduced a new filter plate connector that does not meet the

certification requirements related to the susceptibility of electronic components to high intensity radiated field. This non-compliant filter plate connector, if not replaced, could result in a malfunction of the NWS system causing potential un-commanded steering or lateral excursion from the runway.

In the NPRM, the FAA proposed to require replacing all affected non-compliant ECMs. The FAA is issuing this AD to address the unsafe condition on these products.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-2402.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from two commenters, Bombardier and NetJets. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request to Provide a Figure Title

Both Bombardier and NetJets requested that a title be provided for the figure referenced in paragraph (g) of the NPRM because the title is missing.

The FAA agrees. The title "Figure 1 to the introductory text of paragraph (g) – Applicable Bombardier Service Bulletins" has been added to the referenced figure.

Request to Change the Applicability

Bombardier also requested that the Applicability of the proposed AD be changed. Bombardier noted that Model 601-3A and 601-3R variants are not impacted by this issue and should not be subject to this AD.

The FAA agrees. The Applicability of this AD has been changed accordingly.

Request for Clarification of Service Information Effectivity

NetJets noted that Bombardier Service Bulletin 650-32-006 is effective only for serial numbers 6050 through 6171. NetJets requested that the proposed AD be revised to provide direction for airplane serial numbers outside that range.

The FAA does not agree to revise this AD but will clarify. Bombardier has confirmed that all instructions in Service Bulletin 650-32-006 can be accomplished on serial numbers 6172 and subsequent. Because the affected ECMs are rotatable parts, the FAA has determined that these parts could later be installed on airplanes that were initially delivered with acceptable ECMs, thereby subjecting those airplanes to the unsafe condition. The FAA has not changed this AD as a result of this comment.

Conclusion

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 referenced above. The FAA reviewed the relevant data, considered the comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on this product. Except for minor editorial changes, and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Service Information under 1 CFR Part 51

The FAA reviewed the following Bombardier service information.

- Service Bulletin 604-32-032, dated October 18, 2021.
- Service Bulletin 605-32-009, dated October 18, 2021.
- Service Bulletin 650-32-006, dated October 18, 2021.

This service information specifies procedures for removing and replacing all affected non-compliant ECMs, P/N 601-86100-27. These documents are distinct since

they apply to different airplane configurations. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

The FAA estimates that this AD affects 164 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
6 work-hours X \$85 per hour = \$510	\$75,972	\$76,482	\$12,543,048

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

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,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

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:

2024-07-10 Bombardier, Inc.: Amendment 39-22731; Docket No. FAA-2023-2402; Project Identifier MCAI-2023-00370-T.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc., Model CL-600-2B16 (604 Variant) airplanes, certificated in any category, with serial numbers 5301 through 5665 inclusive, 5701 through 5990 inclusive, and 6050 and subsequent.

(d) Subject

Air Transport Association (ATA) of America Code 32, Landing gear.

(e) Unsafe Condition

This AD was prompted by a report indicating that a new filter plate connector for the nose wheel steering (NWS) system electronic control module (ECM) does not meet certain certification requirements. The FAA is issuing this AD to address this non-compliant filter plate connector, which, if not replaced, could result in a malfunction of the NWS system causing potential uncommanded steering or lateral excursion from the runway.

(f) Compliance

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

(g) Verification of Airplane Technical Records

Within 24 months after the effective date of this AD: Inspect the serial number of the ECM, part number (P/N) 601-86100-27, in accordance with Section 2.B. Part A of the Accomplishment Instructions of the applicable service information listed in figure (1) to the introductory text of paragraph (g) of this AD to determine if the serial number of the ECM, P/N 601-86100-27, is listed in Table 1 of Section 1.A. of the applicable service information listed in figure (1) to the introductory text of paragraph (g) of this AD. A review of maintenance records is also acceptable if the serial number of the ECM can be conclusively determined from that review.

Figure 1 to the introductory text of paragraph (g) – Applicable Bombardier Service Bulletins

Model	Serial Numbers	Applicable Bombardier Service Bulletin
CL-600-2B16	6050 and subsequent	650-32-006, dated October 18, 2021
CL-600-2B16	5701 through 5990	605-32-009, dated October 18, 2021
CL-600-2B16	5301 through 5665	604-32-032, dated October 18, 2021

(1) If the serial number of the ECM is listed in Table 1 of Section 1.A. of the applicable service information or is not reidentified on the nameplate as SB-1, then the actions of paragraph (h) of this AD are required.

(2) If the serial number of the ECM is not listed in Table 1 of Section 1.A. of the applicable service information or is reidentified on the nameplate as SB-1, then the actions of paragraph (h) of this AD are not required.

(h) Replacement

For airplanes identified in paragraph (g)(1) of this AD: Do the actions specified in paragraphs (h)(1) and (2) of this AD.

(1) Within 24 months after the effective date of this AD: Replace the ECM, P/N 601-86100-27, identified in paragraph (g)(1) of this AD, in accordance with Section 2.C. Part B of the Accomplishment Instructions of the applicable service information listed in figure 1 to the introductory text of paragraph (g) of this AD.

(2) Prior to return to service, complete the operational test of the NWS system in accordance with Section 2.D. of the Accomplishment Instructions of the applicable service information listed in figure 1 to the introductory text of paragraph (g) of this AD.

(i) Parts Installation Limitation

As of the effective date of this AD, it is prohibited to install ECM, P/N 601-86100-27, as a replacement part, if the serial number is listed in Table 1 of Section 1.A. of the applicable service information listed in figure 1 to the introductory text of paragraph (g) of this AD, unless the ECM has been reidentified with SB-1 on the nameplate.

(j) Additional AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, International Validation 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 responsible Flight Standards Office, as appropriate. If sending information directly to the manager, International Validation Branch, mail it to the address identified in paragraph (k)(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) *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, International Validation 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.

(k) Additional Information

(1) Refer to Transport Canada AD CF-2023-14R1, dated May 15, 2023, for related information. This Transport Canada AD may be found in the AD docket at regulations.gov under Docket No. FAA-2023-2402.

(2) For more information about this AD, contact Steven Dzierzynski, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: 516-228-7300; email: 9-avs-nyaco-cos@faa.gov.

(I) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Bombardier Service Bulletin 604-32-032, dated October 18, 2021.

(ii) Bombardier Service Bulletin 605-32-009, dated October 18, 2021.

(iii) Bombardier Service Bulletin 650-32-006, dated October 18, 2021.

(3) For service information identified in this AD, contact Bombardier Business Aircraft Customer Response Center, 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-2999; email ac.yul@aero.bombardier.com; website bombardier.com.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov.

Issued on April 2, 2024.

Victor Wicklund,
Deputy Director, Compliance & Airworthiness Division,
Aircraft Certification Service.

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