



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2025-1732; Project Identifier MCAI-2024-00249-T]

RIN 2120-AA64

Airworthiness Directives; Bombardier Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for all Bombardier Inc. Model CL-600-1A11 (600), CL-600-2A12 (601), and CL-600-2B16 (601-3A, 601-3R, and 604 Variants) airplanes. This proposed AD was prompted by a report of uncommanded nose wheel steering upon landing with touchdown on the runway centerline. This proposed AD would require replacing the nosewheel steering potentiometer universal coupling setscrews. This proposed AD would also require revising the existing maintenance or inspection program, as applicable, to incorporate new life limits for the setscrews. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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](https://www.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](https://www.regulations.gov) under Docket No. FAA-2025-1732; 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 NPRM, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For Bombardier material identified in this proposed 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](https://www.bombardier.com).

- You may view this material 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.

FOR FURTHER INFORMATION CONTACT: John Massey, Aviation Safety Engineer, FAA, 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 proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2025-1732; Project Identifier MCAI-2024-00249-T” at the

beginning of your comments. The most helpful comments reference a specific portion of the proposal, 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 the proposal 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 NPRM.

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 NPRM 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 NPRM, 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 NPRM. Submissions containing CBI should be sent to John Massey, Aviation Safety Engineer, FAA, 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

Transport Canada, which is the aviation authority for Canada, has issued Transport Canada AD CF-2024-12R1, dated August 13, 2024 (referred to as “the

MCAI”), to correct an unsafe condition on all Bombardier Inc. Model CL-600-1A11, CL-600-2A12, and CL-600-2B16 airplanes. The MCAI states that there has been an in-service report where upon landing with touchdown on the runway centerline, following standard procedure, the flight spoilers and thrust reverser were used after the nose wheel touchdown. As the airplane speed reduced below 80 knots, the airplane veered to the left. The airplane was maintained on the runway by use of the rudder and by differential braking. Further investigation determined that the nosewheel steering potentiometer universal coupling setscrews were loose, causing an uncommanded steering input.

The FAA is proposing this AD to address uncommanded nosewheel steering due to loose nosewheel steering potentiometer universal coupling setscrews. The unsafe condition, if not addressed, could lead to a runway excursion.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2025-1732.

Material Incorporated by Reference Under 1 CFR Part 51

The FAA reviewed the following material issued by Bombardier:

- Bombardier Service Bulletin 600-0782, dated October 30, 2023.
- Bombardier Service Bulletin 601-1114, dated October 30, 2023.
- Bombardier Service Bulletin 604-32-033, dated October 30, 2023.
- Bombardier Service Bulletin 605-32-010, dated October 30, 2023.
- Bombardier Service Bulletin 650-32-007, dated October 30, 2023.

This material contains procedures to replace the existing nosewheel steering potentiometer universal coupling setscrews with new self-locking setscrews, anaerobic retaining compound, and specified torque, and rig the potentiometer; and perform an operational test of the nosewheel steering system. These documents are distinct since they apply to different airplane models.

The FAA also reviewed the following Bombardier material:

- Bombardier Challenger 600 Time Limits/Maintenance Checks (TLMC)

Temporary Revision (TR) No. TR 5-165, dated October 25, 2023.

- Bombardier Challenger 601 TLMC TR No. TR 5-269, dated October 25, 2023.
- Bombardier Challenger 601 TLMC TR No. TR 5-283, dated October 25, 2023.
- Bombardier Challenger 604 TLMC TR No. 5-2-73, dated October 25, 2023.
- Bombardier Challenger 605 TLMC TR No. 5-2-29, dated October 25, 2023.
- Bombardier Challenger 650 TLMC TR No. 5-2-5, dated October 16, 2023.

This material specifies certain life limits of the safe life items. These documents are distinct since they apply to different airplane models.

This material 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.

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 and material referenced above. The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Proposed AD Requirements in This NPRM

This proposed AD would require accomplishing the actions specified in the material already described.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 930 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Setscrew replacement	4 work-hours X \$85 per hour = \$340	\$40	\$380	\$353,400

The FAA has determined that revising the maintenance or inspection program takes an average of 90 work-hours per operator, although the agency recognizes that this number may vary from operator to operator. Since operators incorporate maintenance or inspection program changes for their affected fleet(s), the FAA has determined that a per-operator estimate is more accurate than a per-airplane estimate. Therefore, the agency estimates the average total cost per operator to be \$7,650 (90 work-hours x \$85 per work-hour).

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some or all of the costs of this proposed 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

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would 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 Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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:

Bombardier Inc.: Docket No. FAA-2025-1732; Project Identifier MCAI-2024-00249-T.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Bombardier Inc. airplanes, certificated in any category, identified in paragraphs (c)(1) through (3) of this AD.

(1) Model CL-600-1A11 (600) airplanes.

(2) Model CL-600-2A12 (601) airplanes.

(3) Model CL-600-2B16 (601-3A, 601-3R, and 604 Variants) airplanes.

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by a report of uncommanded nose wheel steering upon landing with touchdown on the runway centerline. The FAA is issuing this AD to address uncommanded nosewheel steering due to loose nosewheel steering potentiometer universal coupling setscrews. The unsafe condition, if not addressed, could lead to a runway excursion.

(f) Compliance

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

(g) Replacement of Universal Coupling and Nosewheel Steering Potentiometer Universal Coupling Setscrews

For airplanes identified in paragraphs (g)(1) through (5) of this AD: Within 36 months or 1,400 flight hours, whichever occurs first, after the effective date of this AD, replace the nosewheel steering potentiometer universal coupling setscrews (self-locking setscrews) in accordance with Sections 2.B.(3) and 2.C. of the Accomplishment Instructions in the applicable service bulletin identified in paragraphs (g)(1) through (5) of this AD.

(1) For Model CL-600-1A11 (600) airplanes, serial numbers 1004 through 1085 inclusive, on which the actions in Part E of Canadair Challenger Service Bulletin 600-0380, Revision 02, have been completed: Bombardier Service Bulletin 600-0782, dated October 30, 2023.

Note 1 to paragraphs (g)(1) and (h)(1): These airplanes are also referred to by the marketing designation Challenger 600.

(2) For Model CL-600-2A12 (601) airplanes, serial numbers 3001 through 3059 inclusive, on which the actions in Part D of Canadair Challenger Service Bulletin 601-0092, Revision 01 have been completed, and serial numbers 3060 through 3066 inclusive; and Model CL-600-2B16 (601-3A and 601-3R Variants) airplanes, serial numbers 5001 through 5194 inclusive: Bombardier Service Bulletin 601-1114, dated October 30, 2023.

Note 2 to paragraphs (g)(2) (h)(2), and (h)(3): These airplanes are also referred to by the marketing designation Challenger 601.

(3) For Model CL-600-2B16 (604 Variant) airplanes, serial numbers 5301 through 5665 inclusive: Bombardier Service Bulletin 604-32-033, dated October 30, 2023.

Note 3 to paragraphs (g)(3) and (h)(4): These airplanes are also referred to by the marketing designation Challenger 604.

(4) For Model CL-600-2B16 (604 Variant) airplanes, serial numbers 5701 through 5990 inclusive: Bombardier Service Bulletin 605-32-010, dated October 30, 2023.

Note 4 to paragraphs (g)(4) and (h)(5): These airplanes are also referred to by the marketing designation Challenger 605.

(5) For Model CL-600-2B16 (604 Variant) airplanes, serial numbers 6050 through 6193 inclusive: Bombardier Service Bulletin 650-32-007, dated October 30, 2023.

Note 5 to paragraphs (g)(5) and (h)(6): These airplanes are also referred to by the marketing designation Challenger 650.

(h) Maintenance/Inspection Program Revision

Within 60 days after the effective date of this AD, revise the existing maintenance or inspection program, as applicable, to incorporate the information in the applicable temporary revision identified in paragraphs (h)(1) through (6) of this AD. The initial compliance time for the replacement is within 96 months after the replacement required by paragraph (g) of this AD. Using a different document with information identical to the information in the applicable temporary revision identified in paragraphs (h)(1) through (6) of this AD is acceptable for compliance with the requirements of this paragraph.

(1) For all Model CL-600-1A11 (600) airplanes: Bombardier Challenger 600 Time Limits/Maintenance Checks (TLMC) Temporary Revision (TR) No. TR 5-165, dated October 25, 2023.

(2) For all Model CL-600-2A12 (601) airplanes: Bombardier Challenger 601 TLMC TR No. TR 5-269, dated October 25, 2023.

(3) For all Model CL-600-2B16 airplanes (601-3A and 601-3R Variants): Bombardier Challenger 601 TLMC TR No. TR 5-283, dated October 25, 2023.

(4) For Model CL-600-2B16 (604 Variant) airplanes, serial numbers 5301 through 5665 inclusive: Bombardier Challenger 604 TLMC TR No. 5-2-73, dated October 25, 2023.

(5) For Model CL-600-2B16 (604 Variant) airplanes, serial numbers 5701 through 5990 inclusive: Bombardier Challenger 605 TLMC TR No. 5-2-29, dated October 25, 2023.

(6) For Model CL-600-2B16 (604 Variant) airplanes, serial numbers 6050 and subsequent: Bombardier Challenger 650 TLMC TR No. 5-2-5, dated October 16, 2023.

(i) 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 of the International Validation Branch, send it to the attention of the person identified in paragraph (j) of this AD and email to: AMOC@faa.gov. 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's Transport Canada Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(j) Additional Information

For more information about this AD, contact John Massey, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov.

(k) Material Incorporated by Reference

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

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

(i) Bombardier Challenger 600 Time Limits/Maintenance Checks (TLMC) Temporary Revision (TR) No. TR 5-165, dated October 25, 2023.

(ii) Bombardier Challenger 601 TLMC TR No. TR 5-269, dated October 25, 2023.

(iii) Bombardier Challenger 601 TLMC TR No. TR 5-283, dated October 25, 2023.

(iv) Bombardier Challenger 604 TLMC TR No. 5-2-73, dated October 25, 2023.

(v) Bombardier Challenger 605 TLMC TR No. 5-2-29, dated October 25, 2023.

(vi) Bombardier Challenger 650 TLMC TR No. 5-2-5, dated October 16, 2023.

(vii) Bombardier Service Bulletin 600-0782, dated October 30, 2023.

(viii) Bombardier Service Bulletin 601-1114, dated October 30, 2023.

(ix) Bombardier Service Bulletin 604-32-033, dated October 30, 2023.

(x) Bombardier Service Bulletin 605-32-010, dated October 30, 2023.

(xi) Bombardier Service Bulletin 650-32-007, dated October 30, 2023.

(3) For Bombardier material 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 material 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 August 7, 2025.

Steven W. Thompson,
Acting Deputy Director, Compliance & Airworthiness Division,
Aircraft Certification Service.
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