



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2025-2558; Project Identifier MCAI-2021-00022-T]

RIN 2120-AA64

Airworthiness Directives; De Havilland Aircraft of Canada Limited (Type Certificate Previously Held by 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 De Havilland Aircraft of Canada Limited Model DHC-8 airplanes. This proposed AD was prompted by reports of cracked barrel nuts at the wing front spar and horizontal stabilizer to vertical stabilizer joint. This proposed AD would require repetitive inspections for cracking and corrosion of the affected barrel nuts and applicable corrective actions. 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-2025-2558; 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 De Havilland Aircraft of Canada Limited material identified in this proposed AD, contact De Havilland Aircraft of Canada Limited, Dash 8 Series Customer Response Centre, 5800 Explorer Drive, Mississauga, Ontario, L4W 5K9, Canada; telephone North America (toll-free): 855-310-1013, Direct: 647-277-5820; email thd@dehavilland.com; website [dehavilland.com](https://www.dehavilland.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: Christopher Spencer, 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:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments using a method listed under the ADDRESSES section. Include “Docket No. FAA-2025-2558; Project Identifier MCAI-2021-00022-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 Christopher Spencer, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (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-2020-06R1, dated January 7, 2021 (Transport Canada AD CF-2020-06R1) (also referred to as the MCAI), to correct an unsafe condition for all De Havilland Aircraft of Canada Limited Model DHC-8-100 series airplanes; Model DHC-

8-200 series airplanes; Model DHC-8-300 series airplanes (which includes Model DHC-8-314 airplanes); and Model DHC-8-400 series airplanes. Model DHC-8-314 airplanes are not certificated by the FAA and are not included on the U.S. type certificate data sheet; this proposed AD therefore does not include those airplanes in the applicability.

The MCAI states there were findings related to cracked barrel nuts at the wing front spar and horizontal stabilizer to vertical stabilizer joint. For those locations, Transport Canada issued AD CF-2011-24R1 (which corresponds to FAA AD 2019-20-09, Amendment 39-19762 (84 FR 56680, October 23, 2019)) and AD CF-2015-13R1 (which corresponds to FAA AD 2018-22-03, Amendment 39-19476 (83 FR 53563, October 24, 2018)) to address the unsafe condition. Barrel nuts are also installed in other locations on the airplane. An investigation determined that the cracking is caused by corrosion from inadequate cadmium plating on the barrel nuts. This condition, if not addressed, could result in failed barrel nuts that could compromise the structural integrity of the affected joints (i.e., of the airplane) and could lead to loss of control of the airplane.

The FAA is proposing 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-2025-2558.

Material Incorporated by Reference Under 1 CFR Part 51

The FAA reviewed De Havilland Aircraft of Canada Limited Service Bulletin 8-05-11, dated April 29, 2022. This material specifies procedures for detailed inspections for cracks and corrosion of the barrel nuts at the flight compartment windshield side posts, the nose landing gear trunnion plate assemblies, nacelle lower longeron attachments, the front, mid and rear spar horizontal stabilizer to vertical stabilizer attachments, the bathtub fittings attachments, the wing rib YW23.858 assemblies, and at the wing rib YW42.00 assemblies, and applicable corrective actions (e.g., repairs or replacement).

The FAA also reviewed De Havilland Aircraft of Canada Limited Service Bulletin 84-27-73, dated May 8, 2019; and De Havilland Aircraft of Canada Limited Service Bulletin 8-27-121, dated July 30, 2019. This material specifies procedures, for a detailed inspection for cracks and corrosion of the barrel nuts, having part number (P/N) DSC228-4, at the rudder pedal adjustment mechanism, and applicable corrective actions (i.e., replacement of barrel nuts, having P/N DSC228-4, with barrel nuts, having P/N B0203073-4). These documents are distinct since they apply to different airplane models.

The FAA also reviewed De Havilland Aircraft of Canada Limited Service Bulletin 8-27-122, dated July 18, 2019. This material specifies procedures for a detailed inspection for cracks and corrosion of the barrel nuts, having P/N DSC228-5, at the control attachment fittings, and applicable corrective actions (i.e., replacement of barrel nuts, having P/N DSC228-5 with barrel nuts, having P/N B0203073-5).

The FAA also reviewed De Havilland Aircraft of Canada Limited Service Bulletin 84-05-02, dated April 29, 2022. This material specifies procedures for detailed inspections for cracks and corrosion of the barrel nuts at the flight compartment windshield side posts, the vertical stabilizer pitch feel trim frame, the front and rear spar wing to fuselage attachment joint struts and fittings, and the bathtub fitting attachments, and applicable corrective actions (e.g., repairs or replacement).

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

These products have been approved by the civil aviation authority of another country and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, that authority 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, except as discussed under “Differences Between This Proposed AD and the MCAI or Referenced Material.”

Differences Between This Proposed AD and the MCAI or Referenced Material

Transport Canada AD CF-2020-06R1 introduces new maintenance review board report (MRBR) intervals that the FAA cannot mandate as MRBRs as specified in the MCAI. Instead of mandating the MRBR tasks as done in the Transport Canada AD, the FAA, after coordination with Transport Canada, determined the procedures specified in the service information in paragraphs (g) and (h) of this proposed AD will be used because those procedures refer to the corresponding airplane maintenance manual (AMM) task numbers of the MRBR tasks. Therefore, the FAA proposes to mandate the procedures as specified in the service information in paragraphs (g) and (h) of this proposed AD.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 111 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Up to 13 work-hours X \$85 per hour = \$680	\$0	\$1,105	\$122,655

The FAA estimates the following costs to do any necessary on-condition actions that would be required based on the results of any required actions. The FAA has no way

of determining the number of aircraft that might need these on-condition actions:

Estimated costs of on-condition actions

Labor cost	Parts cost	Cost per product
Up to 8 work-hours X \$85 per hour = \$680	\$0*	\$680*

* The FAA has received no definitive data on which to base the cost estimates for the parts specified in this proposed AD.

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:

De Havilland Aircraft of Canada Limited (Type Certificate Previously Held by Bombardier, Inc.): Docket No. FAA-2025-2558; Project Identifier MCAI-2021-00022-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 De Havilland Aircraft of Canada Limited airplanes, certificated in any category, identified in paragraphs (c)(1) through (4) of this AD.

(1) Model DHC-8-101, -102, -103, and -106 airplanes.

(2) Model DHC-8-201 and -202 airplanes.

(3) Model DHC-8-301, -311, and -315 airplanes.

(4) Model DHC-8-400, -401 and -402 airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 14, Hardware; 51, Standard practices/structures.

(e) Unsafe Condition

This AD was prompted by reports of cracked barrel nuts at the wing front spar and horizontal stabilizer to vertical stabilizer joint, which was caused by corrosion from inadequate cadmium plating on the barrel nuts. The FAA is issuing this AD to address cracking and corrosion of the affected barrel nuts. The unsafe condition, if not addressed, could result in failed barrel nuts that could compromise the structural integrity of the airplane and could lead to loss of control of the airplane.

(f) Compliance

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

(g) Actions for Model DHC-8-100, -200, and -300 Series Airplanes

For Model DHC-8-101, -102, -103, and -106 airplanes, Model DHC-8-201 and -202 airplanes, and Model DHC-8-301, -311, and -315 airplanes: Do the actions specified in paragraphs (g)(1) through (4) of this AD.

(1) As of 60 days after the effective date of this AD: At the next flight compartment windshield replacement, do a detailed inspection for cracks and corrosion of the barrel nuts at the windshield side posts and, before further flight, do all applicable corrective actions, in accordance with the Accomplishment Instructions of De Havilland Aircraft of Canada Limited Service Bulletin 8-05-11, dated April 29, 2022. Repeat the inspection thereafter at each flight compartment windshield replacement.

(2) Within 6 years since entry into service, or within 60 days after the effective date of this AD, whichever occurs later, do detailed inspections for cracks and corrosion of the barrel nuts at the nose landing gear trunnion plate assemblies, nacelle lower longeron attachments, the front, mid and rear spar horizontal stabilizer to vertical stabilizer attachments, the bathtub fittings attachments, the wing rib YW23.858 assemblies, and the wing rib YW42.00 assemblies, and before further flight, do all applicable corrective actions, in accordance with the Accomplishment Instructions of De Havilland Aircraft of Canada Limited Service Bulletin 8-05-11, dated April 29, 2022. Repeat the inspection thereafter at intervals not to exceed 6 years.

(3) Within 6 years since entry into service, or within 60 days after the effective date of this AD, whichever occurs later, do a detailed inspection for cracks and corrosion of the barrel nuts, having part number (P/N) DSC228-5, at the control attachment fittings, and before further flight, do all applicable corrective actions, in accordance with the Accomplishment Instructions of De Havilland Aircraft of Canada Limited Service Bulletin 8-27-122, dated July 18, 2019. Repeat the inspection thereafter at intervals not to exceed 6 years.

(4) Within 7 years since entry into service, or within 60 days after the effective date of this AD, whichever occurs later, do a detailed inspection for cracks and corrosion of the barrel nuts, having P/N DSC228-4, at the rudder pedal adjustment mechanism, and before further flight, do all applicable corrective actions, in accordance with the Accomplishment Instructions of De Havilland Aircraft of Canada Limited Service Bulletin 8-27-121, dated July 30, 2019. Repeat the inspection thereafter at intervals not to exceed 7 years.

(h) Actions for Model DHC-8-400 Series Airplanes

For Model DHC-8-400, -401 and -402 airplanes: Do the actions specified in paragraphs (h)(1) through (3) of this AD.

(1) As of 60 days after the effective date of this AD: At the next flight compartment windshield replacement, do a detailed inspection for cracks and corrosion of the barrel nuts at the flight compartment windshield side posts, and before further flight, do all applicable corrective actions, in accordance with the Accomplishment Instructions of De Havilland Aircraft of Canada Limited Service Bulletin 84-05-02, dated April 29, 2022. Repeat the inspection thereafter at each flight compartment windshield replacement.

(2) Within 6 years since entry into service, or within 60 days after the effective date of this AD, whichever occurs later, do detailed inspections for cracks and corrosion of the barrel nuts at the vertical stabilizer pitch feel trim frame, the front and rear spar wing to fuselage attachment joint struts and fittings, and the bathtub fitting attachments, and before further flight, do all applicable corrective actions, in accordance with the Accomplishment Instructions of De Havilland Aircraft of Canada Limited Service Bulletin 84-05-02, dated April 29, 2022. Repeat the inspections thereafter at intervals not to exceed 6 years.

(3) Within 7 years since entry into service, or within 60 days after the effective date of this AD, whichever occurs later, do a detailed inspection for cracks and corrosion of the barrel nuts, having P/N DSC228-4, at the rudder pedal adjustment mechanism, and before further flight, do all applicable corrective actions, in accordance with the Accomplishment Instructions of De Havilland Aircraft of Canada Limited Service Bulletin 84-27-73, dated May 8, 2019. Repeat the inspection thereafter at intervals not to exceed 7 years.

(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 De Havilland Aircraft of Canada Limited'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 Christopher Spencer, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (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) De Havilland Aircraft of Canada Limited Service Bulletin 8-05-11, dated April 29, 2022.

(ii) De Havilland Aircraft of Canada Limited Service Bulletin 8-27-121, dated July 30, 2019.

(iii) De Havilland Aircraft of Canada Limited Service Bulletin 8-27-122, dated July 18, 2019.

(iv) De Havilland Aircraft of Canada Limited Service Bulletin 84-05-02, dated April 29, 2022.

(v) De Havilland Aircraft of Canada Limited Service Bulletin 84-27-73, dated May 8, 2019.

(3) For De Havilland Aircraft of Canada Limited material identified in this AD, contact De Havilland Aircraft of Canada Limited, Dash 8 Series Customer Response Centre, 5800 Explorer Drive, Mississauga, Ontario, L4W 5K9, Canada; telephone North America (toll-free): 855-310-1013, Direct: 647-277-5820; email thd@dehavilland.com; website dehavilland.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 September 24, 2025.

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