



## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2023-1885; Project Identifier MCAI-2022-01484-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 certain De Havilland Aircraft of Canada Limited Model DHC-8-401 and -402 airplanes. This proposed AD was prompted by reports of moisture in the wing-to-fuselage joint, between the mating front spar and rear spar frame segments. This proposed AD would require a visual inspection of the fuselage front and rear spar frames, an ultrasonic test if applicable, other specified actions, and repair if necessary. 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-2023-1885; 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 service information identified in this NPRM, contact De Havilland Aircraft of Canada Limited, Dash 8 Series Customer Response Centre, 5800 Explorer Drive, Mississauga, Ontario, L4W 5K9, Canada; telephone 855-310-1013 or 647-277-5820; email: [thd@dehavilland.com](mailto:thd@dehavilland.com); website: [dehavilland.com](https://www.dehavilland.com).

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

**FOR FURTHER INFORMATION CONTACT:** Deep Gaurav, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email: [deep.gaurav@faa.gov](mailto:deep.gaurav@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 ADDRESSES. Include “Docket No. FAA-2023-1885; Project Identifier MCAI-2022-01484-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 Deep Gaurav, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email: [deep.gaurav@faa.gov](mailto:deep.gaurav@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-2022-63, dated November 17, 2022 (Transport Canada AD

CF-2022-63) (also referred to as the MCAI), to correct an unsafe condition on certain De Havilland Aircraft of Canada Limited Model DHC-8-401 and -402 airplanes. The MCAI states several reports of moisture have been found in the wing-to-fuselage joint, between the mating front spar and rear spar frame segments. This condition, if not corrected, could lead to corrosion and structural degradation of the wing-to-fuselage joint and possible wing separation from 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-2023-1885.

### **Related Service Information Under 1 CFR Part 51**

The FAA reviewed De Havilland Aircraft of Canada Limited Service Bulletin 84-53-81, Revision A, dated August 23, 2022. This service information specifies procedures for a general visual inspection of the fuselage front and rear spar frames (including around the frame bolts) for signs of moisture (i.e., stains and streaks). If signs of moisture ingress are noted in the affected structure because of this inspection, then an ultrasonic test and other specified actions will be required, which includes installing a sealant plug, refinishing the frame edge sealing, and removing the existing frame recess sealant between the frame and struts in the cabin.

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.

### **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 the service information referenced above. The FAA is issuing

this NPRM after determining that the unsafe condition previously described 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 service information already described. This proposed AD would also require repairing any corrosion or structural degradation found during the ultrasonic test.

**Costs of Compliance**

The FAA estimates that this AD, if adopted as proposed, would affect 41 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

**Estimated costs for required actions**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
16 work-hours X \$85 per hour = \$1,360	\$3,134	\$4,494	\$184,254

The FAA has received no definitive data on which to base the cost estimates for the on-condition actions 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-2023-1885; Project Identifier MCAI-2022-01484-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 De Havilland Aircraft of Canada Limited (Type Certificate Previously Held by Bombardier, Inc.) Model DHC-8-401 and -402 airplanes, certificated in any category, having serial numbers 4001 and 4003 through 4624 inclusive.

**(d) Subject**

Air Transport Association (ATA) of America Code: 53, Fuselage.

**(e) Unsafe Condition**

This AD was prompted by reports of moisture in the wing-to-fuselage joint, between the mating front spar and rear spar frame segments. The FAA is issuing this AD to address corrosion and structural degradation of the wing-to-fuselage joint. The unsafe condition, if not addressed, could result in wing separation from the airplane.

**(f) Compliance**

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

**(g) Inspection and Corrective Action**

At the applicable compliance times specified in paragraph (g)(1) or (2) of this AD, in accordance with Section 3.B., of the Accomplishment Instructions of De Havilland Aircraft of Canada Service Bulletin 84-53-81, Revision A, dated August 23, 2022, complete a general visual inspection of the fuselage spar frames and around the frame bolts for signs of moisture ingress (i.e., stains and streaks), accomplish other specified actions, and if necessary, perform an ultrasonic test. Do all applicable ultrasonic

tests before further flight. If, during any ultrasonic test, any corrosion or structural degradation is found, before further flight, repair 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.

(1) For airplanes that, as of the effective date of this AD, have accumulated less than 32,000 total flight cycles: before accumulating 40,000 total flight cycles.

(2) For airplanes that, as of the effective date of this AD, have accumulated 32,000 or more total flight cycles: within 8,000 flight hours or 48 months, whichever occurs first after the effective date of this AD.

**(h) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using De Havilland Aircraft of Canada Limited Service Bulletin 84-53-81, dated May 27, 2022.

**(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, International Validation Branch, mail it to the address identified in paragraph (j)(2) of this AD or email to: 9-AVS-AIR-730-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**

(1) Refer to Transport Canada AD CF-2022-63, dated November 17, 2022, for related information. This Transport Canada AD may be found in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1885.

(2) For more information about this AD, contact Deep Gaurav, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email: [deep.gaurav@faa.gov](mailto:deep.gaurav@faa.gov).

**(k) 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) De Havilland Aircraft of Canada Limited Service Bulletin 84-53-81, Revision A, dated August 23, 2022.

(ii) [Reserved]

(3) For service information 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 855-310-1013 or 647-277-5820; email: [thd@dehavilland.com](mailto:thd@dehavilland.com); website: [dehavilland.com](http://dehavilland.com).

(4) You may view this service information at the FAA, Airworthiness Products

Section, Operational Safety Branch, 2200 South 216th Street, Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html).

Issued on September 18, 2023.

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

[FR Doc. 2023-20514 Filed: 9/22/2023 8:45 am; Publication Date: 9/25/2023]