



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2020-0101; Product Identifier 2019-NM-190-AD;**

**Amendment 39-19908; AD 2020-09-12]**

**RIN 2120-AA64**

**Airworthiness Directives; De Havilland Aircraft of Canada Limited (Type Certificate Previously Held by Bombardier, Inc.) Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for certain De Havilland Aircraft of Canada Limited Model DHC-8-400 series airplanes. This AD was prompted by a report that certain elevator power control unit (PCU) arm fittings have nonconforming fillet radii. This AD requires an inspection for affected elevator PCU assemblies, inspections of affected elevator PCU arm fittings for nonconforming fillet radii and cracks, replacement if necessary, and re-identification of the affected elevator PCU assemblies. 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 a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact De Havilland Aircraft of Canada Limited, Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; phone: 416-375-4000; fax: 416-375-4539; email: thd@dehavilland.com; Internet: <https://dehavilland.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 on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0101.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0101; 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, 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.

**FOR FURTHER INFORMATION CONTACT:** Andrea Jimenez, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: 516-228-7330; fax: 516-794-5531; email: 9-avs-nyaco-cos@faa.gov.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian AD CF-2019-36, dated October 18, 2019 (“AD CF-2019-36”) (also referred to as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain De Havilland Aircraft of Canada Limited Model DHC-8-400 series airplanes. You may examine the MCAI in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0101.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain De Havilland Aircraft of Canada Limited Model DHC-8-400 series airplanes. The NPRM published in the Federal Register on February 24, 2020 (85 FR 10344). The NPRM was prompted by a report that certain elevator PCU arm fittings have nonconforming fillet radii. The NPRM proposed to require an inspection for affected elevator PCU assemblies, inspections of affected elevator PCU arm fittings for nonconforming fillet radii and cracks, replacement if necessary, and re-identification of the affected elevator PCU assemblies. The FAA is issuing this AD to address elevator PCU assemblies with nonconforming fillet radii, which could lead to premature failure of the fitting and a jam in one elevator; if the fittings on both elevators fail, a complete loss of elevator control could occur. See the MCAI for additional background information.

## **Comments**

The FAA gave the public the opportunity to participate in developing this final rule. The FAA received no comments on the NPRM or on the determination of the cost to the public.

## **Conclusion**

The FAA reviewed the relevant data and determined that air safety and the public interest require adopting this final rule as proposed, except for minor editorial changes.

The FAA has determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

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

De Havilland Aircraft of Canada Limited has issued Service Bulletin 84-55-10, Revision A, dated July 25, 2019. This service information describes procedures for an inspection for affected elevator PCU assemblies, inspections of affected elevator PCU arm fittings for nonconforming fillet radii and cracks, replacement if necessary, and re-identification of the affected elevator PCU assemblies. 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 38 airplanes of U.S. registry. The FAA estimates the following costs to comply with this 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>
5 work-hours X \$85 per hour = \$425	\$0	\$425	\$16,150

The FAA estimates the following costs to do any necessary on-condition replacement that would be required based on the results of any required inspections. The FAA has no way of determining the number of aircraft that might need this on-condition replacement:

**Estimated costs of on-condition actions**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
14 work-hours X \$85 per hour = \$1,190	Up to \$9,060 (\$1,510 per elevator PCU arm fittings – 6 total per airplane)	Up to \$10,250

**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.

## **Adoption of 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 (AD):

**2020-09-12 De Havilland Aircraft of Canada Limited (Type Certificate Previously Held by Bombardier, Inc.):** Amendment 39-19908; Docket No. FAA-2020-0101; Product Identifier 2019-NM-190-AD.

**(a) Effective Date**

This 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 De Havilland Aircraft of Canada Limited Model DHC-8-400, -401, and -402 series airplanes, certificated in any category, serial numbers 4001 and subsequent.

**(d) Subject**

Air Transport Association (ATA) of America Code 55, Stabilizers.

**(e) Reason**

This AD was prompted by a report that certain elevator power control unit (PCU) arm fittings have nonconforming fillet radii. The FAA is issuing this AD to address elevator PCU assemblies with nonconforming fillet radii, which could lead to premature failure of the fitting and a jam in one elevator; if the fittings on both elevators fail, a complete loss of elevator control could occur.

**(f) Compliance**

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

**(g) Definition**

Affected elevator PCU assemblies are those having part number 85527021-005 or 85527021-006, and having serial number MMC4255 through MMC4276 inclusive.

**(h) Inspections**

For airplanes having serial numbers 4001 through 4620 inclusive, within 8,000 flight cycles on the elevator PCU assembly after the effective date of this AD, or before the accumulation of 30,000 total flight cycles on the elevator PCU assembly, whichever occurs first: Do the actions specified in paragraphs (h)(1) and (2) of this AD.

(1) Inspect to determine the part number and serial number of each elevator PCU assembly installed on the airplane. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number and serial number of the elevator PCU assembly can be conclusively determined from that review.

(2) If, during any inspection or records review required by paragraph (h)(1) of this AD, any affected elevator PCU assembly is found, do a detailed inspection of the elevator PCU arm fittings for undersized fillet radii and cracks of the fillet radii in accordance with Part A of the Accomplishment Instructions of De Havilland Aircraft of Canada Limited Service Bulletin 84-55-10, Revision A, dated July 25, 2019. If no undersized fillet radii or cracks of the fillet radii are found, before further flight, re-identify the affected elevator PCU assembly in accordance with the Accomplishment Instructions of De Havilland Aircraft of Canada Limited Service Bulletin 84-55-10, Revision A, dated July 25, 2019.

**(i) Corrective Actions**

If during any inspection of the elevator PCU arm fittings required by paragraph (h)(2) of this AD, any undersized fillet radii or cracks of the fillet radii are found, before further flight, replace the elevator PCU arm fittings and re-identify each affected elevator PCU assembly in accordance with Part B of the Accomplishment Instructions of De Havilland Aircraft of Canada Limited Service Bulletin 84-55-10, Revision A, dated July 25, 2019.

**(j) Parts Installation Limitation**

As of the effective date of this AD, no person may install an affected elevator PCU assembly on any airplane, unless it has been re-identified in accordance with the Accomplishment Instructions of De Havilland Aircraft of Canada Limited Service Bulletin 84-55-10, Revision A, dated July 25, 2019.

**(k) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraphs (h) and (i) of this AD, if those actions were performed before the effective date of this AD using De Havilland Aircraft of Canada Limited Service Bulletin 84-55-10, dated May 29, 2019.

**(l) No Reporting Requirement**

Although De Havilland Aircraft of Canada Limited Service Bulletin 84-55-10, Revision A, dated July 25, 2019, specifies to submit certain information to the manufacturer, this AD does not include that requirement.

**(m) Other FAA 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 certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: 516-228-7300; fax: 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district 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, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or De Havilland Aircraft of Canada Limited's TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

**(n) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2019-36, dated October 18, 2019, for related information. This MCAI may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0101.

(2) For more information about this AD, contact Andrea Jimenez, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: 516-228-7330; fax: 516-794-5531; email: 9-avs-nyaco-cos@faa.gov.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (o)(3) and (4) of this AD.

**(o) 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 84-55-10, Revision A, dated July 25, 2019.

(ii) [Reserved]

(3) For service information identified in this AD, contact De Havilland Aircraft of Canada Limited, Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; phone: 416-375-4000; fax: 416-375-4539; email: thd@dehavilland.com; Internet: <https://dehavilland.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 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 [fedreg.legal@nara.gov](mailto:fedreg.legal@nara.gov), or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on May 6, 2020.

Lance T. Gant, Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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