



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2025-1107; Project Identifier MCAI-2024-00784-A; Amendment 39-23118; AD 2025-17-08]

RIN 2120-AA64

Airworthiness Directives; Viking Air Limited (Type Certificate Previously Held by Bombardier Inc. and de Havilland, Inc.) Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2022-23-08, which applied to all Viking Air Limited (Viking) Model DHC-3 airplanes. AD 2022-23-08 required a visual inspection of the stabilizer actuator to confirm that the stabilizer actuator lock ring is present, correctly seated in the groove in the upper housing, and engaged in the clamp nut, applicable corrective actions, application of a torque seal, and sending the inspection results to the FAA. Since the FAA issued AD 2022-23-08, Transport Canada, which is the aviation authority for Canada, issued mandatory continuing airworthiness information (MCAI) to address the unsafe condition identified as a missing stabilizer actuator lock ring. This AD requires repetitively inspecting the stabilizer actuator to confirm that the stabilizer actuator lock ring is present, correctly seated in the groove in the upper housing, and engaged in the clamp nut; taking applicable corrective actions; applying a witness mark (torque seal); and installing a secondary retention feature as terminating action for the repetitive inspections. This AD also prohibits installing any stabilizer actuator unless it is a serviceable part. 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:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2025-1107; 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 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 Transport Canada material identified in this AD, contact Transport Canada, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario, K1A 0N5, Canada; phone: (888) 663-3639; email: TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca; website: tc.canada.ca/en/aviation.

- You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2025-1107.

FOR FURTHER INFORMATION CONTACT: Brenda Buitrago, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (516) 228-7368; email: brenda.l.buitrago.perez@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2022-23-08, Amendment 39-22235 (87 FR 66084, November 2, 2022) (AD 2022-23-08). AD 2022-23-08 applied to Viking Model DHC-3 airplanes, all serial numbers.

AD 2022-23-08 required a visual inspection of the stabilizer actuator to confirm that the stabilizer actuator lock ring is present, correctly seated in the groove in the upper housing, and engaged in the clamp nut, applicable corrective actions, application of a torque seal, and sending the inspection results to the FAA. The FAA issued AD 2022-23-08 to correct an unsafe condition identified as a missing stabilizer actuator lock ring.

The NPRM was published in the *Federal Register* on June 20, 2025 (90 FR 26228). The NPRM was prompted by Transport Canada AD CF-2024-46, dated December 23, 2024 (Transport Canada AD CF-2024-46) (also referred to as the MCAI).

The MCAI states that a fatal DHC-3 airplane accident occurred on September 4, 2022, at Mutiny Bay, near Freeland, WA. Witnesses reported that the airplane was in level flight before it entered a slight climb, then pitched down in a near-vertical descent until it impacted water resulting in fatal injuries to the pilot and the nine passengers.

The MCAI also states that the National Transportation Safety Board (NTSB) carried out the accident investigation and released a final investigation report on September 29, 2023. The NTSB noted in the report that the stabilizer actuator clamp nut on the accident airplane separated from the stabilizer barrel by unthreading and the lock ring securing the clamp nut to the barrel was missing. The NTSB also found an unapproved moisture seal had been installed on the stabilizer actuator, which is not part of the airplane's type design, leading to increased rotational friction between the clamp

nut and eye bolt, which has the potential to increase the rate of separation between the clamp nut and barrel in the absence of the lock ring.

To address the unsafe condition, Transport Canada AD CF-2024-46 requires initial and repetitive inspections of the stabilizer actuator to confirm that the stabilizer actuator lock ring is present, correctly seated in the groove in the upper housing, and fully engaged in the clamp nut. Transport Canada AD CF-2024-46 also requires application of a witness mark (torque seal) and prohibits the installation of a stabilizer actuator that has not been inspected in accordance with Transport Canada AD CF-2024-46 or has not been marked. If the lock ring is missing or incorrectly installed, Transport Canada AD CF-2024-46 requires the rectification of the actuator in accordance with Viking Service Letter DHC3-SL-27-001, dated October 25, 2022, or replacement with a serviceable actuator, and prohibits the installation of affected parts.

In the NPRM, the FAA proposed to retain none of the requirements of AD 2022-23-08. Instead, the FAA proposed to require accomplishing the actions specified in Transport Canada AD CF-2024-46 except for any differences identified as exceptions in the regulatory text of this AD. See “Differences Between this AD and the MCAI” for a general discussion of these differences.

The FAA is issuing this AD to ensure that the stabilizer actuator clamp nut does not separate from the stabilizer barrel by unthreading and to ensure that the lock ring securing the clamp nut to the stabilizer barrel does not separate. This condition, if not detected and corrected, could result in a reduction or loss of pitch control during flight with consequent loss of control of the airplane.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2025-1107.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the costs.

Conclusion

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 referenced above. The FAA reviewed the relevant data, considered any 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 these products. This AD is adopted as proposed in the NPRM.

Material Incorporated by Reference Under 1 CFR Part 51

The FAA reviewed Transport Canada AD CF-2024-46, which specifies procedures for initial and repetitive inspections of the stabilizer actuator, applicable corrective actions, and torque seal (witness mark) application. Transport Canada AD CF-2024-46 also prohibits the installation of any stabilizer actuator unless it is a serviceable part.

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.

Differences Between this AD and the MCAI

Where Part V of Transport Canada AD CF-2024-46 specifies installing a new clamp nut and safety wire on the horizontal stabilizer as an optional terminating action,

this AD requires installing a secondary retention feature using a method approved by the FAA within 330 hours time-in-service after the effective date of this AD.

Where Transport Canada AD CF-2024-46 requires reporting any movement of the lock ring or witness mark to the Transport Canada Web Service Difficulty Reporting System (WSDRS), this AD does not require that action.

Costs of Compliance

The FAA estimates that this AD affects 64 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD.

Estimated costs

Action	Labor Cost	Parts Cost	Cost per product	Cost on U.S. operators
Inspect lock ring	1 work-hour x \$85 per hour = \$85 per inspection cycle	\$0	\$85 per inspection cycle	\$5,440 per inspection cycle
Apply witness mark (torque seal)	1 work-hour x \$85 per hour = \$85	\$0	\$85	\$5,440
Install secondary retention feature	17 work-hours x \$85 per hour = \$1445	\$795	\$2,240	\$143,360

The FAA estimates the following costs to do any necessary actions that are required based on the results of the inspection. The agency has no way of determining the number of airplanes that might need these actions:

On-condition costs

Action	Labor Cost	Parts Cost	Cost per product
Install lock ring if missing or incorrectly installed	15 work-hours x \$85 per hour = \$1,275	\$50	\$1,325

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 has determined that 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:

a. Removing Airworthiness Directive 2022-23-08, Amendment 39-22235 (87 FR 66084, November 2, 2022); and

b. Adding the following new airworthiness directive:

2025-17-08 Viking Air Limited (type certificate previously held by Bombardier Inc. and de Havilland, Inc.): Amendment 39-23118; Docket No. FAA-2025-1107; Project Identifier MCAI-2024-00784-A.

(a) Effective Date

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

(b) Affected ADs

This AD replaces AD 2022-23-08, Amendment 39-22235 (87 FR 66084, November 2, 2022).

(c) Applicability

This AD applies to Viking Air Limited (Viking) (type certificate previously held by Bombardier Inc. and de Havilland, Inc.) Model DHC-3 airplanes, certificated in any category, as identified in Transport Canada AD CF-2024-46, dated December 23, 2024 (Transport Canada AD CF-2024-46).

(d) Subject

Joint Aircraft System Component (JASC) Code 5520, Elevator Structure.

(e) Unsafe Condition

This AD was prompted by an investigation of a Viking Model DHC-3 airplane where the lock ring of the stabilizer actuator was found to be missing. The FAA is issuing this AD to ensure that the stabilizer actuator clamp nut does not separate from the stabilizer barrel by unthreading and to ensure that the lock ring securing the clamp nut to the stabilizer barrel does not separate. This condition, if not detected and corrected, could result in a reduction or loss of pitch control during flight with consequent loss of control of the airplane.

(f) Compliance

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

(g) Required Actions

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, Transport Canada AD CF-2024-46.

(h) Exceptions to Transport Canada AD CF-2024-46

(1) Where Transport Canada AD CF-2024-46 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where Transport Canada AD CF-2024-46 requires compliance in terms of hours air time, this AD requires using hours time-in-service (TIS).

(3) Where Part V of Transport Canada AD CF-2024-46 specifies installing a new clamp nut and safety wire on the horizontal stabilizer as an optional terminating action using FAA Supplemental Type Certificate SA02761SE, this AD requires installing a secondary retention feature using a method approved by the FAA within 330 hours time-in-service after the effective date of this AD.

(4) Where Transport Canada AD CF-2024-46 requires reporting any movement of the lock ring or witness mark to the Transport Canada Web Service Difficulty Reporting System (WSDRS), this AD does not require that action.

(i) Alternative Methods of Compliance (AMOCs)

(1) 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 local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, mail it to the address identified in paragraph (j) of this AD and email to: AMOC@faa.gov.

(2) 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.

(j) Additional Information

For more information about this AD, contact Brenda Buitrago, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (516) 228-7368; email: brenda.l.buitrago.perez@faa.gov.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) 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 the AD specifies otherwise.

(i) Transport Canada AD CF-2024-46, dated December 23, 2024.

(ii) [Reserved]

(3) For Transport Canada material identified in this AD, contact Transport Canada, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean,

Ontario, K1A 0N5, Canada; phone: (888) 663-3639; email: TC.AirworthinessDirectives-
Consignesdenavigabilite.TC@tc.gc.ca; website: tc.canada.ca/en/aviation.

(4) You may view this material at FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110.

(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 20, 2025.

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