



FAA
Aviation Safety

EMERGENCY

AIRWORTHINESS DIRECTIVE

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DATE: October 4, 2022
AD #: 2022-21-51

Emergency Airworthiness Directive (AD) 2022-21-51 is sent to owners and operators of Viking Air Limited (type certificate previously held by Bombardier Inc. and de Havilland, Inc.) Model DHC-3 airplanes.

Background

This Emergency AD was prompted by multiple recent reports of cracks in the left-hand elevator auxiliary spar. The FAA's analysis of these reports indicates that immediate AD action is warranted. The FAA is issuing this AD to detect and address cracks, corrosion, and previous repairs to the left-hand elevator auxiliary spar. The unsafe condition, if not addressed, could result in elevator flutter leading to elevator failure, with consequent loss of control of the airplane.

The FAA has coordinated this issue with Transport Canada, which is the aviation authority for Canada. Transport Canada issued AD CF-2018-04, dated January 19, 2018 (Transport Canada AD CF-2018-04), which includes a requirement for inspecting elevator assemblies for corrosion. The FAA issued a notice of proposed rulemaking that published in the *Federal Register* on February 8, 2022 (87 FR 7059) in response to Transport Canada AD CF-2018-04, and is currently addressing comments.

As an interim action, the FAA is issuing this Emergency AD, as a result of the recent reports, to mandate an inspection of the left-hand elevator auxiliary spar and replacement if necessary.

FAA's Determination

The FAA is issuing this AD because the agency has determined that an unsafe condition is likely to exist or develop in other products of the same type design.

AD Requirements

This AD requires repetitive detailed visual inspections of the entire left-hand elevator auxiliary spar for cracks, corrosion, and previous repairs, and depending on the findings, replacement of the left-hand elevator auxiliary spar. This AD also requires sending the inspection results to the FAA.

Interim Action

The FAA considers this AD to be an interim action. If final action is later identified, the FAA might consider further rulemaking.

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a

currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

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.

Presentation of the Actual AD

The FAA is issuing this AD under 49 U.S.C. Section 44701 according to the authority delegated to me by the Administrator.

2022-21-51 Viking Air Limited (type certificate previously held by Bombardier Inc. and de Havilland, Inc.): Project Identifier AD-2022-01303-A.

(a) Effective Date

This Emergency AD is effective upon receipt.

(b) Affected ADs

None.

(c) Applicability

Viking Air Limited (type certificate previously held by Bombardier Inc. and de Havilland, Inc.) Model DHC-3 airplanes, all serial numbers, certificated in any category.

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by multiple recent reports of cracks in the left-hand elevator auxiliary spar. The FAA's analysis of these reports indicates that immediate AD action is warranted. The FAA is issuing this AD to detect and address cracks, corrosion, and previous repairs to the left-hand elevator auxiliary spar. The unsafe condition, if not addressed, could result in elevator flutter leading to elevator failure, with consequent loss of control of the airplane.

(f) Compliance

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

(g) Definition of Corrosion

The definition of Levels 1, 2, and 3 corrosion are specified in Advisory Circular 43-4B, *Corrosion Control for Aircraft*, dated September 11, 2018. You may find this document at faa.gov/documentLibrary/media/Advisory_Circular/AC_43-4B.

(h) Inspection

(1) Within 10 hours time in service (TIS) or 3 days after receipt of this Emergency AD, whichever occurs first, unless already done within the last 90 days, and thereafter at intervals not to exceed 110 hours TIS, remove the left-hand elevator tab from the elevator and perform a detailed visual inspection of the entire left-hand elevator auxiliary spar for cracks, corrosion, and previous repairs. For the purposes of this AD, structural reinforcements are not considered previous repairs.

(2) If any crack, corrosion beyond Level 1, or previous repair is found during any inspection required by this Emergency AD, before further flight, replace the left-hand elevator auxiliary spar.

(i) Reporting Requirements

Within 10 days after each inspection, report the results of the inspection to the FAA at 9-avs-nyaco-cos@faa.gov. Include the airplane serial number, airplane hours TIS, auxiliary spar hours TIS (if known), and any crack, corrosion beyond Level 1, or previous repair that is found.

(j) Alternative Methods of Compliance (AMOCs)

(1) 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 New York ACO Branch, mail it to the attention of the person identified in paragraph (k) of this AD or email to: 9-avs-nyaco-cos@faa.gov. If mailing information, also submit information by email.

(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.

(k) Related Information

For further information about this AD, contact: James Delisio, Continued Operational Safety Program Manager, COS Program Management Section, Operational Safety Branch, FAA, 1600 Stewart Avenue, Westbury, NY 11590; phone: (516) 228-7300; email: 9-avs-nyaco-cos@faa.gov.

Issued on October 4, 2022.

Ross Landes, Deputy Director for Regulatory Operations,
Compliance & Airworthiness Division,
Aircraft Certification Service.