



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0214; Project Identifier 2018-CE-064-AD]

RIN 2120-AA64

Airworthiness Directives; Viking Aircraft Limited 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 Viking Air Limited Model DHC-3 airplanes. This proposed AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI identifies the unsafe condition as fatigue damage of the wing strut lug fitting components and the fuselage to wing strut attachment (tie-bar). This proposed AD would require determining service life limits for the wing strut fitting on the main spar and for the tie-bar and following instructions for removal and replacement of affected parts. 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 <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.

For service information identified in this NPRM, contact Viking Air Limited Technical Support, 1959 De Havilland Way, Sidney, British Columbia, Canada, V8L 5V5; phone: (North America) (800) 663-8444; fax: (250) 656-0673; email: technical.support@vikingair.com; website: <https://www.vikingair.com/support/service-bulletins>. You may view this service information 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 (816) 329-4148.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0214; 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, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Aziz Ahmed, Aviation Safety Engineer, New York ACO Branch, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (516) 287-7329; fax: (516) 794-5531; email: aziz.ahmed@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-2021-0214; Project Identifier 2018-CE-064-AD” 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 this 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 <https://www.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 Aziz Ahmed, Aviation Safety Engineer, New York ACO Branch, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590. 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 AD Number CF-2017-29, dated August 24, 2017 (referred to after this as “the MCAI”), to correct an unsafe condition for Viking Air Limited Model DHC-3 airplanes. The MCAI states:

It has been determined that the current maintenance program does not adequately address potential fatigue damage of the wing strut lug fitting components or the fuselage to wing strut attachment (Tie Bar). Affected parts must be replaced before specified air time limits are reached to avoid fatigue cracking of the affected parts. Cracking which is not detected may compromise the structural integrity of the wing or the Tie-Bar.

Fatigue damage occurs more rapidly on aeroplanes that are operated at higher gross weights. For that reason, the corrective actions of this [Transport Canada] AD must be accomplished sooner for aeroplanes that have been certified for operation at higher gross weights.

Fatigue damage also occurs more rapidly on aeroplanes that are operated below 2000 feet above ground level (AGL) over land due to higher and more frequent gust and maneuvering loads. Low level flights over water

are not known to produce increased fatigue damage on the DHC-3. For that reason, the corrective actions of this [Transport Canada] AD must be accomplished sooner for aeroplanes that have been operated at low altitudes over land.

This condition, if not addressed, could result in cracking and failure of the structural integrity of the wing or the tie-bar.

You may examine the MCAI in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0214.

Related Service Information under 1 CFR Part 51

The FAA reviewed Viking Air Limited DHC-3 Otter Service Bulletin Number V3/0008, Revision NC, dated February 9, 2017. The service information specifies determining service life limits for the wing strut fitting on the main spar and for the tie-bar, and contains instructions for removal and replacement. De Havilland Aircraft of Canada has issued DHC-3 Otter Service Bulletin Number 3/37, Revision B, dated October 8, 1982. The service information specifies instructions for removal and replacement of the Fuselage to Wing Strut Attachment Tie-Bar. 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 ADDRESSES.

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 our bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI and service information referenced above. The FAA is issuing this NPRM after determining 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 AD requires accomplishing the actions specified in the service information already described.

Differences Between this Proposed AD and the MCAI

The MCAI requires calculating the compliance time by using a formula and estimating the altitudes at which an airplane has operated. The MCAI also instructs

operators to assume operations below 2,000 feet AGL when the operating altitude of the airplane is unknown. Because the FAA has no regulatory requirement for owners or operators to record or maintain the operating altitude history of an aircraft, this proposed AD would require calculating the compliance time by assuming all operations occurred below 2,000 feet AGL.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 41 airplanes of U.S. registry.

The FAA also estimates that it would take about 300 work-hours per airplane to replace both the wing strut fitting and the tie-bar. The average labor rate is \$85 per work-hour. Required parts would cost about \$5,599 per airplane.

Based on these figures, the FAA estimates the cost of the proposed AD on U.S. operators to be \$1,275,059 or \$31,099 per airplane.

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:

Viking Air Limited: Docket No. FAA-2021-0214; Project Identifier 2018-CE-064-AD.

(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 Viking Air Limited Model DHC-3 airplanes, all serial numbers, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code 5700, Wings.

(e) Unsafe Condition

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as fatigue damage of the wing strut lug fitting components or the fuselage to wing strut attachment (tie-bar). The FAA is issuing this AD to identify and correct potential fatigue damage of the wing strut lug fitting components of the fuselage to wing strut attachment. The unsafe condition, if not addressed, could result in cracking and failure of the structural integrity of the wing or the tie-bar.

(f) Actions and Compliance

Unless already done, do the following actions in paragraphs (f)(1) through (3):

(1) *For all airplanes:* Within 3 months after the effective date of this AD, determine and record the number of equivalent air time hours on each wing and tie-bar by doubling the total hours time-in-service (TIS) accumulated on each part. If the total hours TIS of a tie-bar is unknown or cannot be determined, use the total hours TIS of the wing strut lug fitting on the main spar.

(2) *For airplanes with a maximum certificated gross weight that has never exceeded 8,000 pounds:* Remove from service each left and right hand wing strut fitting and tie-bar by following the Accomplishment Instructions in Viking Air Limited SB V3/0008, Revision NC, dated February 9, 2017, and the Replacement section of the Accomplishment instructions in De Havilland Aircraft of Canada DHC-3 Otter Service Bulletin Number 3/37, Revision B, dated October 8, 1982, at whichever of the following compliance time that occurs later:

- (i) Before the part accumulates 40,000 equivalent air time hours, or
- (ii) Within 12 months after the effective date of this AD.

(3) *For airplanes with a maximum certificated gross weight that has ever exceeded 8,000 pounds:* Remove from service each left and right hand wing strut fitting and tie-bar by following the Accomplishment Instructions in Viking Air Limited SB V3/0008, Revision NC, dated February 9, 2017, and the Replacement section of the Accomplishment instructions in De Havilland Aircraft of Canada DHC-3 Otter Service

Bulletin Number 3/37, Revision B, dated October 8, 1982, at whichever of the following compliance time that occurs later:

- (i) Before the part accumulates 32,200 equivalent air time hours, or
- (ii) Within 12 months after the effective date of this AD.

(g) 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 ACO Branch, send it to the attention of the person identified in paragraph (h)(1) of this AD.

(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.

(h) Related Information

(1) For more information about this AD, contact Aziz Ahmed, Aviation Safety Engineer, New York ACO Branch, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (516) 287-7329; fax: (516) 794-5531; email: aziz.ahmed@faa.gov.

(2) Refer to Transport Canada AD Number CF-2017-29, dated August 24, 2017, for more information. You may examine the Transport Canada AD in the AD docket at <https://www.regulations.gov> by searching for and locating it in Docket No. FAA-2021-0214.

(3) For service information identified in this AD, contact Viking Air Limited Technical Support, 1959 De Havilland Way, Sidney, British Columbia, Canada, V8L 5V5; phone: (North America) (800) 663-8444; fax: (250) 656-0673; email: technical.support@vikingair.com; website: <https://www.vikingair.com/support/service-bulletins>. You may view this service information 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 (816) 329-4148.

Issued on June 21, 2021.

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

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