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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0891 Directorate Identifier 2008-CE-046-AD; Amendment 39-15741; AD 2008-24-01]

RIN 2120-AA64

Airworthiness Directives; Viking Air Limited DHC-6 Series Airplanes

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

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) issued 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:

Three instances have occurred in which the aircraft took off with pre-mod 6/1676 flight control gust locks still installed, sometimes with disastrous results.

Based on investigation, the FAA and National Transportation Safety Board (NTSB) believe that an attempted takeoff with the gust locks installed could be the cause of a recent accident in Hyannis, Massachusetts. We are issuing this AD to require actions to correct the unsafe condition on these products.

DATES: This AD becomes effective December 30, 2008.

On December 30, 2008, the Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD.

ADDRESSES: You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at Document Management Facility, 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: Fabio Buttitta, Aerospace Engineer, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone: (516) 228-7303; fax: (516) 794-5531.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on August 19, 2008 (73 FR 48310). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

Three instances have occurred in which the aircraft took off with pre-mod 6/1676 flight control gust locks still installed, sometimes with disastrous results.

The MCAI, to prevent an attempted take-off with the gust locks installed, requires the incorporation of de Havilland Modification 6/1676 (ensures downward deflection of the elevators when the control locks are engaged) and incorporation of de Havilland Modification 6/1726 (adds to the control lock a warning flag which masks essential flight instruments on the pilot's instrument panel).

Comments

We gave the public the opportunity to participate in developing this AD. We have considered the comment received.

Comment Issue: Proposed AD Deals With an Operational/Pilot Error

The Aircraft Owners and Pilots Association (AOPA) recommends that the FAA issue a special airworthiness information bulletin (SAIB) instead of an AD. AOPA cites another similar situation where the FAA issued an SAIB for Raytheon Aircraft Company (RAC) (now, Hawker Beechcraft Corporation (HBC)) airplanes instead of an AD, dealing with both operational/pilot error and the failure of the pilot to remove the control lock before flight. AOPA believes that this is not an unsafe condition under 14 CFR part 39.

The FAA partially agrees with the commenter that in the referenced situation we issued an SAIB instead of an AD. However, we disagree with the commenter that this particular situation should require no more than SAIB action.

This AD action differs from the situation that warranted the SAIB. The SAIB, dated March 11, 2002, for the HBC airplanes was prompted because of operators using makeshift gust locks (common bolts or nails) instead of gust locks provided by the manufacturer. The SAIB recommends use of gust locks that meet the requirements for flight control locks as defined by 14 CFR 23.679 and recommends pilots review their preflight checks. The SAIB also recommends that operators replace older gust locks that locked the controls in the neutral position with newer modified gust locks that locked the controls in the nose down and/or roll input position.

The SAIB applies to the entire line (including commuter category 1900 series) of HBC propeller-driven airplanes, primarily to address accidents that involved gust locks on non-commuter category airplanes. This includes the HBC 1900 series airplanes, which like the DHC-6 series airplanes, are used in commuter operations (14 CFR part 135). The 1900 series airplanes are included as an extra measure to reinforce prudent practice on HBC's entire line of propeller-driven airplanes. It should be noted that the HBC Model 1900 gust lock design always locks the control column in a nose down and/or roll input position.

The following table, Current Gust Lock Design Differences Between 1900 Series Airplanes and DHC-6 (pre-Mod 6/1676/Mod 6/1726) Series Airplanes, illustrates the design differences between the two series of airplanes:

Current Gust Lock Design Differences Between 1900 Series Airplanes and DHC-6 (pre- Mod 6/1676 / Mod 6/1726) Series Airplanes

1900 Series	DHC-6 Series
Gust lock design pins the control column in a nose-down elevator position that prevents takeoff.	Pre- Mod 6/1676/ Mod 6/1726 design of the gust locks pins the control column in a neutral elevator position that allows takeoff.
Rotates the control wheel approximately 15 degrees to the left when the lock is engaged to indicate gust lock engagement.	Control wheel is not rotated as a visual indicator that the gust lock is engaged.
Includes a clamp over the engine control levers with a red warning flag on a chain between the engine control clamp and the control column pin, and a chain connected to the rudder lock pin installed in the floorboards.	Does not include a clamp over the engine control levers or a warning flag.
Design provides an obvious warning that the gust locks are engaged.	No obvious warning that the gust locks are engaged.

There have been no known accidents of the 1900 series airplanes attributed to failure to remove a gust lock.

The DHC-6 series airplanes are comparable to the 1900 series airplanes and may be used as commuter category airplanes. Before issuance of the MCAI, there were three occurrences of DHC-6 series airplanes attempting take off with pre-Mod 6/1676 gust locks still installed, sometimes with disastrous results. Recently, we had a fatal accident in Hyannis, Massachusetts, where preliminary investigations reveal a pre-Mod 6/1676 gust lock installed.

This AD goes beyond recommending that pilots review and adhere to all pre-flight checks and before take-off procedures. This AD would require operators to incorporate de Havilland Modification 6/1676, which locks the control column forward (elevator nose down position). This reduces the possibility of the airplane becoming airborne should a takeoff be attempted with the gust lock installed. This AD would also require operators to incorporate Mod 6/1726, which adds a warning flag that masks essential flight instruments on the pilot's instrument panel. This gives a more obvious warning to the pilot that the gust locks are installed, minimizing the possibility of an attempted take-off with gust locks installed.

Because this issue has been the cause of past accidents that resulted in the MCAI and could be the cause or a contributing factor to a recent accident, we determined that an unsafe condition exists and the condition is likely to exist or develop in other products of the same type design registered in the United States.

We are not changing the final rule AD action based on this comment.

Differences Between This AD and the MCAI or Service Information

We have reviewed the MCAI and related service information and, in general, agree with their substance. But we might have found it necessary to use different words from those in the MCAI to ensure the AD is clear for U.S. operators and is enforceable. In making these changes, we do not intend to differ substantively from the information provided in the MCAI and related service information.

We might also have required different actions in this AD from those in the MCAI in order to follow FAA policies. Any such differences are highlighted in a NOTE within the AD.

Costs of Compliance

Based on the service information, we estimate that this AD will affect 42 products of U.S. registry. We also estimate that it will take about 6 work-hours per product to comply with basic requirements of this AD. The average labor rate is \$80 per work-hour. Required parts will cost about \$1,125 per product.

Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$67,410 or \$1,605 per product.

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.

We are 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

We 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 this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866;
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); 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.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD Docket.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

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 AD:



2008-24-01 Viking Air Limited: Amendment 39-15741; Docket No. FAA-2008-0891; Directorate Identifier 2008-CE-046-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective December 30, 2008.

Affected ADs

- (b) None.

Applicability

- (c) This AD applies to Models DHC-6-1, DHC-6-100, DHC-6-200, and DHC-6-300 airplanes, serial numbers (SNs) 1 through 696, that
 - (1) have not had modifications 6/1676 and 6/1726 installed; and
 - (2) are certificated in any category.

Subject

- (d) Air Transport Association of America (ATA) Code 27: Flight Controls.

Reason

- (e) The mandatory continuing airworthiness information (MCAI) states:

Three instances have occurred in which the aircraft took off with pre-mod 6/1676 flight control gust locks still installed, sometimes with disastrous results.

The MCAI, to prevent an attempted take-off with the gust locks installed, requires the incorporation of de Havilland Modification 6/1676 (ensures downward deflection of the elevators when the control locks are engaged) and incorporation of de Havilland Modification 6/1726 (adds to the control lock a warning flag which masks essential flight instruments on the pilot's instrument panel). Based on investigation, the FAA and National Transportation Safety Board believe that an attempted takeoff with the gust locks installed could be the cause of a recent accident in Hyannis, Massachusetts.

Actions and Compliance

- (f) Unless already done, within 6 calendar months after December 30, 2008 (the effective date of this AD), do the following actions using Boeing Canada de Havilland Division Service Bulletin No. 6/508, Revision "A," dated January 31, 1990:

- (1) Incorporate de Havilland Modification 6/1676, which assures downward deflection of the elevators when the control locks are engaged.

(2) Incorporate de Havilland Modification 6/1726, which adds to the control lock a warning flag that covers up essential flight instruments on the pilot's instrument panel.

FAA AD Differences

Note: This AD differs from the MCAI and/or service information as follows: No differences.

Other FAA AD Provisions

(g) The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, Standards Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Fabio Buttitta, Aerospace Engineer, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone: (516) 228-7303; fax: (516) 794-5531. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

Related Information

(h) Refer to MCAI Transport Canada AD No. CF-90-01, dated January 31, 1990; and Boeing Canada de Havilland Division Service Bulletin No. 6/508, Revision "A," dated January 31, 1990, for related information.

Material Incorporated by Reference

(i) You must use Boeing Canada de Havilland Division Service Bulletin No. 6/508, Revision "A," dated January 31, 1990, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Viking Air Ltd., 9564 Hampden Rd., Sidney, British Columbia, Canada V8L 5V5; telephone: 800-663-8444 or 250-656-7227; fax: 250-656-0673; E-mail: info@vikingair.com; Web: <http://www.vikingair.com>.

(3) You may review copies at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri 64106; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Kansas City, Missouri on November 10, 2008.

James E. Jackson,
Acting Manager, Small Airplane Directorate,
Aircraft Certification Service.