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[Page 423-426]
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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2010-0701; Directorate Identifier 2010-NM-017-AD; Amendment 39-16561; AD 2011-01-08]

RIN 2120-AA64

Airworthiness Directives; Fokker Services B.V. Model F.28 Mark 0100 Airplanes

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

ACTION: Final rule.

SUMMARY: We are superseding an existing airworthiness directive (AD) that applies to the products listed above. This AD results from 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:

Two reports have been received where, during inspection of the vertical stabilizer of F28 Mark 0100 aeroplanes, one of the bolts that connect the horizontal stabilizer control unit actuator with the dog-links was found broken (one on the nut side & one on the head side). In both occasions, the bolt shaft was still present in the connection and therefore the horizontal stabilizer function was not affected. If a single dog-link connection fails, the complete stabilizer load is taken up by the remaining dog-link connection. * * *

To address and correct this unsafe condition EASA [European Aviation Safety Agency] issued AD 2007-0287 [corresponding FAA AD 2008-22-14] that required a one-time inspection of the affected bolts, * * * and replacement of failed bolts with serviceable parts. EASA AD 2007-0287 also required the installation of a tie wrap through the lower bolts of the horizontal stabilizer control unit, to keep the bolt in place in the event of a bolt head failure.

Recent examination revealed that the bolts failed due to stress corrosion, attributed to excessive bolt torque. Investigation of the recently failed bolts showed that the modification as required by AD 2007-0287 is not adequate.

* * * * *

Loss of horizontal stabilizer function could result in partial loss of control of the airplane. We are issuing this AD to require actions to correct the unsafe condition on these products.

DATES: This AD becomes effective February 9, 2011.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of February 9, 2011.

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of December 26, 2008 (73 FR 70261, November 20, 2008).

ADDRESSES: You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1137; fax (425) 227-1149.

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 July 27, 2010 (75 FR 43876), and proposed to supersede AD 2008-22-14, Amendment 39-15710 (73 FR 70261, November 20, 2008). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

Two reports have been received where, during inspection of the vertical stabilizer of F28 Mark 0100 aeroplanes, one of the bolts that connect the horizontal stabilizer control unit actuator with the dog-links was found broken (one on the nut side & one on the head side). In both occasions, the bolt shaft was still present in the connection and therefore the horizontal stabilizer function was not affected. If a single dog-link connection fails, the complete stabilizer load is taken up by the remaining dog-link connection. Any failed connection should be detected and corrected at the next scheduled inspection.

To address and correct this unsafe condition EASA [European Aviation Safety Agency] issued AD 2007-0287 [corresponding FAA AD 2008-22-14] that required a one-time inspection of the affected bolts, Part Number (P/N) 23233-1, and replacement of failed bolts with serviceable parts. EASA AD 2007-0287 also required the installation of a tie wrap through the lower bolts of the horizontal stabilizer control unit, to keep the bolt in place in the event of a bolt head failure.

Recent examination revealed that the bolts failed due to stress corrosion, attributed to excessive bolt torque. Investigation of the recently failed bolts showed that the modification as required by AD 2007-0287 is not adequate.

To address the stress corrosion, the manufacturer of the bolt, Goodrich, has introduced a bolt with an improved corrosion protection, P/N 23233-3, through Service Bulletin 23100-27-29.

For the reasons described above, this EASA AD retains the requirements of AD 2007-0287, which is superseded, and adds the requirement to replace the affected P/N 23233-1 bolts with improved bolts. Concurrently, the tie-wrap must be removed.

Loss of horizontal stabilizer function could result in partial loss of control of the airplane. You may obtain further information by examining the MCAI in the AD docket.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed.

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 our FAA policies. Any such differences are highlighted in a Note within the AD.

Costs of Compliance

We estimate that this AD will affect about 4 products of U.S. registry.

The actions that are required by AD 2008-22-14 and retained in this AD take about 3 work-hours per product, at an average labor rate of \$85 per work-hour. Based on these figures, the estimated cost of the currently required actions is \$255 per product.

We estimate that it will take about 7 work-hours per product to comply with the new basic requirements of this AD. The average labor rate is \$85 per work-hour. Required parts will cost about \$1,550 per product. Where the service information lists required parts costs that are covered under warranty, we have assumed that there will be no charge for these costs. As we do not control warranty coverage for affected parties, some parties may incur costs higher than estimated here. Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$8,580, or \$2,145 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 the 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 Operations office 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 Operations 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 removing Amendment 39-15710 (73 FR 70261, November 20, 2008) and adding the following new AD:



2011-01-08 Fokker Services B.V.: Amendment 39-16561. Docket No. FAA-2010-0701; Directorate Identifier 2010-NM-017-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective February 9, 2011.

Affected ADs

- (b) This AD supersedes AD 2008-22-14, Amendment 39-15710.

Applicability

- (c) This AD applies to Fokker Services B.V. Model F.28 Mark 0100 airplanes, certificated in any category, all serial numbers.

Subject

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

Reason

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

Two reports have been received where, during inspection of the vertical stabilizer of F28 Mark 0100 aeroplanes, one of the bolts that connect the horizontal stabilizer control unit actuator with the dog-links was found broken (one on the nut side & one on the head side). In both occasions, the bolt shaft was still present in the connection and therefore the horizontal stabilizer function was not affected. If a single dog-link connection fails, the complete stabilizer load is taken up by the remaining dog-link connection. * * *

To address and correct this unsafe condition EASA [European Aviation Safety Agency] issued AD 2007-0287 [corresponding FAA AD 2008-22-14] that required a one-time inspection of the affected bolts, * * * and replacement of failed bolts with serviceable parts. EASA AD 2007-0287 also required the installation of a tie wrap through the lower bolts of the horizontal stabilizer control unit, to keep the bolt in place in the event of a bolt head failure.

Recent examination revealed that the bolts failed due to stress corrosion, attributed to excessive bolt torque. Investigation of the recently failed bolts showed that the modification as required by AD 2007-0287 is not adequate.

* * * * *

Loss of horizontal stabilizer function could result in partial loss of control of the airplane.

Compliance

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Restatement of Requirements of AD 2008-22-14

Actions and Compliance

(g) Unless already done, within 6 months after December 26, 2008 (the effective date of AD 2008-22-14), do the following actions.

(1) Perform a one-time inspection (integrity check) for failure of the lower bolts of the stabilizer control unit dog-links, in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-27-091, dated August 31, 2007. If a failed bolt is found, before further flight, replace the bolt with a serviceable bolt in accordance with the Accomplishment Instructions of that service bulletin.

(2) Install a tie-wrap through the lower bolts of the stabilizer control unit, in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-27-091, dated August 31, 2007.

New Requirements of This AD

Actions

(h) Within 30 months after the effective date of this AD, do the actions specified in paragraphs (h)(1) and (h)(2) of this AD concurrently. Accomplishing the actions of both paragraphs (h)(1) and (h)(2) of this AD terminates the actions required by paragraph (g) of this AD.

(1) Remove the tie-wrap, P/N MS3367-2-9, from the lower bolts of the horizontal stabilizer control unit, in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-27-092, dated April 27, 2009.

(2) Remove the lower bolts, P/N 23233-1, of the horizontal stabilizer control unit and install bolts, P/N 23233-3, in accordance with the Accomplishment Instructions of Goodrich Service Bulletin 23100-27-29, dated November 14, 2008.

(i) After accomplishing the requirements of paragraph (h) of this AD, do not install a bolt having P/N 23233-1 or a tie-wrap having P/N MS3367-2-9.

FAA AD Differences

Note 1: This AD differs from the MCAI and/or service information as follows: No differences.

Other FAA AD Provisions

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, 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: Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1137; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a

principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

(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: 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 current 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 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW., Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

Related Information

(k) Refer to MCAI EASA Airworthiness Directive 2009-0216, dated October 7, 2009; Fokker Service Bulletin SBF100-27-091, dated August 31, 2007; Fokker Service Bulletin SBF100-27-092, dated April 27, 2009; and Goodrich Service Bulletin 23100-27-29, dated November 14, 2008; for related information.

Material Incorporated by Reference

(l) You must use the applicable service information contained in Table 1 of this AD to do the actions required by this AD, unless the AD specifies otherwise.

Table 1—All Material Incorporated by Reference

Document	Date
Fokker Service Bulletin SBF100-27-091	August 31, 2007
Fokker Service Bulletin SBF100-27-092	April 27, 2009
Goodrich Service Bulletin 23100-27-29	November 14, 2008

(1) The Director of the Federal Register approved the incorporation by reference of Fokker Service Bulletin SBF100-27-092, dated April 27, 2009; and Goodrich Service Bulletin 23100-27-29, dated November 14, 2008; under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The Director of the Federal Register previously approved the incorporation by reference of Fokker Service Bulletin SBF100-27-091, dated August 31, 2007, on December 26, 2008 (73 FR 70261, November 20, 2008).

(3) For Fokker service information identified in this AD, contact Fokker Services B.V., Technical Services Dept., P.O. Box 231, 2150 AE Nieuw-Vennep, the Netherlands; telephone +31 (0)252-627-350; fax +31 (0)252-627-211; e-mail technicalservices.fokkerservices@stork.com; Internet <http://www.myfokkerfleet.com>. For Goodrich service information identified in this AD, contact Goodrich Corporation, Landing Gear, 1400 South Service Road, West Oakville L6L 5Y7, Ontario, Canada; telephone 905-825-1568; e-mail jean.breed@goodrich.com; Internet <http://www.goodrich.com/TechPubs>.

(4) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may also review copies of the 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, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on December 17, 2010.

Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.