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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2009-0691; Directorate Identifier 2009-NM-061-AD; Amendment 39-15988; AD 2009-16-05]

RIN 2120-AA64

Airworthiness Directives; Fokker Model F.27 Mark 050 Airplanes

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

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for 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:

During the walk around check on a Fokker 50 (F27 Mark 050) aeroplane, extensive damage was found on the left hand (LH) inner flap and nacelle. The damage had been caused by a broken fork of the inner flap outboard drive shaft. This resulted in asymmetric flap extension and interference between the flap and the nacelle. A metallurgical investigation showed that the fork end failed in a fatigue mode. Most probably the failure was caused by the "cyclic load" as a result of regularly reaching the mechanical end stop position.

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This condition, if not corrected, could lead to further cases of asymmetric flap extension, possibly resulting in loss of control of the aeroplane.

* * * * *

This AD requires actions that are intended to address the unsafe condition described in the MCAI.

DATES: This AD becomes effective August 20, 2009.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of August 20, 2009.

We must receive comments on this AD by September 4, 2009.

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://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: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-40, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

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 this AD, 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.

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

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2009-0047, dated March 2, 2009 (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

During the walk around check on a Fokker 50 (F27 Mark 050) aeroplane, extensive damage was found on the left hand (LH) inner flap and nacelle. The damage had been caused by a broken fork of the inner flap outboard drive shaft. This resulted in asymmetric flap extension and interference between the flap and the nacelle. A metallurgical investigation showed that the fork end failed in a fatigue mode. Most probably the failure was caused by the "cyclic load" as a result of regularly reaching the mechanical end stop position.

A review of the Aircraft Maintenance Manual (AMM) 'end stop clearances check' for aeroplane in post-SBF50-27-030 configuration, revealed that this inspection procedure, to determine and correct the clearance between the end stop and the flap drive nut, may need some improvement, which is now being considered. Further investigation showed that this type of failure has occurred previously on other Fokker 50 aeroplanes, but only those modified in accordance with SBF50-27-030. A review of the experience with pre-mod SBF50-27-030 aeroplane indicated that no failures have been reported.

This condition, if not corrected, could lead to further cases of asymmetric flap extension, possibly resulting in loss of control of the aeroplane.

For the reasons described above, this EASA AD requires a one-time inspection of the clearance between the flap mechanical drive nut and the up and down stop and a non-

destructive inspection of certain components, if abutments marks are present or when the up and/or down stop touches the drive nut after a full up or down selection in the hydraulic mode.

Based on the above described failure scenario, the differences in the design properties and the positive experience, aeroplanes in pre-SBF50-27-030 configuration are not affected by this AD.

Corrective actions include readjusting the up-stop position if clearance between the flap mechanical drive nut and the up-and-down-stop is incorrect, and if any cracks are found during the non-destructive inspection, replacing the part with a serviceable part. You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

Fokker has issued Service Bulletin SBF50-27-043, dated November 17, 2008. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA's Determination and Requirements of this AD

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 the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are issuing this AD because we evaluated all pertinent information and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

There are no products of this type currently registered in the United States. However, this rule is necessary to ensure that the described unsafe condition is addressed if any of these products are placed on the U.S. Register in the future.

Differences Between the 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.

FAA's Determination of the Effective Date

Since there are currently no domestic operators of this product, notice and opportunity for public comment before issuing this AD are unnecessary.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2009-0691; Directorate Identifier 2009-NM-061-AD" at the

beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

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.

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:



2009-16-05 Fokker Services B.V.: Amendment 39-15988. Docket No. FAA-2009-0691; Directorate Identifier 2009-NM-061-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective August 20, 2009.

Affected ADs

- (b) None.

Applicability

- (c) This AD applies to Fokker Model F.27 Mark 050 airplanes, certificated in any category, all serial numbers, if in a post Fokker Service Bulletin SBF50-27-030 configuration.

Subject

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

Reason

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

During the walk around check on a Fokker 50 (F27 Mark 050) aeroplane, extensive damage was found on the left hand (LH) inner flap and nacelle. The damage had been caused by a broken fork of the inner flap outboard drive shaft. This resulted in asymmetric flap extension and interference between the flap and the nacelle. A metallurgical investigation showed that the fork end failed in a fatigue mode. Most probably the failure was caused by the "cyclic load" as a result of regularly reaching the mechanical end stop position.

A review of the Aircraft Maintenance Manual (AMM) 'end stop clearances check' for aeroplane in post-SBF50-27-030 configuration, revealed that this inspection procedure, to determine and correct the clearance between the end stop and the flap drive nut, may need some improvement, which is now being considered. Further investigation showed that this type of failure has occurred previously on other Fokker 50 aeroplanes, but only those modified in accordance with SBF50-27-030. A review of the experience with pre-mod SBF50-27-030 aeroplane indicated that no failures have been reported.

This condition, if not corrected, could lead to further cases of asymmetric flap extension, possibly resulting in loss of control of the aeroplane.

For the reasons described above, this EASA AD requires a one-time inspection of the clearance between the flap mechanical drive nut and the up and down stop and a non destructive inspection of certain components, if abutments marks are present or when the

up and/or down stop touches the drive nut after a full up or down selection in the hydraulic mode.

Based on the above described failure scenario, the differences in the design properties and the positive experience, aeroplanes in pre-SBF50-27-030 configuration are not affected by this AD.

Corrective actions include readjusting the up-stop position if clearance between the flap mechanical drive nut and the up-and-down-stop is incorrect, and if any cracks are found during the non-destructive inspection, replacing the part with a serviceable part.

Actions and Compliance

(f) Unless already done, do the following actions.

(1) Within 12 months after the effective date of this AD, inspect the clearance between the flap mechanical drive nut and the up-and-down-stop, and before further flight, do all applicable corrective actions, in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF50-27-043, dated November 17, 2008.

(2) If, during accomplishment of the actions required by paragraph (f)(1) of this AD, abutments marks are found, or when the up-and-down-stop touches the drive nut after a full up or down selection in the hydraulic mode, before further flight, do a non-destructive inspection for cracking, in accordance with Fokker Service Bulletin SBF50-27-043, dated November 17, 2008. If any cracking is found, before further flight, replace the part with a serviceable part.

FAA AD Differences

Note 1: 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, 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: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act, 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 Mandatory Continuing Airworthiness Information (MCAI) European Aviation Safety Agency Airworthiness Directive 2009-0047, dated March 2, 2009; Fokker Service Bulletin SBF50-27-043, dated November 17, 2008; for related information.

Material Incorporated by Reference

(i) You must use Fokker Service Bulletin SBF50-27-043, dated November 17, 2008, 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 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>.

(3) 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 or 425-227-1152.

(4) 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 July 24, 2009.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.