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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2011-0325; Directorate Identifier 2010-NM-278-AD; Amendment 39-16652; AD 2011-08-02]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Fokker Services B.V. Model F.27 Mark 050 Airplanes**

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

**ACTION:** Final rule; request for comments.

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**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:

[T]he Federal Aviation Administration (FAA) has published Special Federal Aviation Regulation (SFAR) 88, and the Joint Aviation Authorities (JAA) has published Interim Policy INT/POL/25/12. The design review conducted by Fokker Services on the Fokker 50 and Fokker 60 in response to these regulations revealed that, if chafing occurs between the Fuel Quantity Probe (FQP) and the probe wiring, with additional factors, this may result in an ignition source in the wing tank vapour space.

This condition, if not corrected, in combination with flammable fuel vapours, could result in a wing fuel tank explosion and consequent loss of the aeroplane.

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

**DATES:** This AD becomes effective April 28, 2011.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of April 28, 2011.

We must receive comments on this AD by May 31, 2011.

**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 (phone: 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 2010-0157, dated August 3, 2010 (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

[T]he Federal Aviation Administration (FAA) has published Special Federal Aviation Regulation (SFAR) 88, and the Joint Aviation Authorities (JAA) has published Interim Policy INT/POL/25/12. The design review conducted by Fokker Services on the Fokker 50 and Fokker 60 in response to these regulations revealed that, if chafing occurs between the Fuel Quantity Probe (FQP) and the probe wiring, with additional factors, this may result in an ignition source in the wing tank vapour space.

This condition, if not corrected, in combination with flammable fuel vapours, could result in a wing fuel tank explosion and consequent loss of the aeroplane.

For the reasons described above, this AD requires a one-time [general visual] inspection to check for the presence of a rubber sleeve and cable tie near each FQP in both wing tanks and, depending on findings, the installation of a sleeve and cable tie.

You may obtain further information by examining the MCAI in the AD docket.

The FAA has examined the underlying safety issues involved in fuel tank explosions on several large transport airplanes, including the adequacy of existing regulations, the service history of airplanes subject to those regulations, and existing maintenance practices for fuel tank systems. As a result of those findings, we issued a regulation titled "Transport Airplane Fuel Tank System Design Review, Flammability Reduction and Maintenance and Inspection Requirements" (66 FR 23086, May 7, 2001). In addition to new airworthiness standards for transport airplanes and new maintenance requirements, this rule included Special Federal Aviation Regulation No. 88 ("SFAR 88," Amendment 21-78, and subsequent Amendments 21-82 and 21-83).

Among other actions, SFAR 88 requires certain type design (i.e., type certificate (TC) and supplemental type certificate (STC)) holders to substantiate that their fuel tank systems can prevent ignition sources in the fuel tanks. This requirement applies to type design holders for large turbine-powered transport airplanes and for subsequent modifications to those airplanes. It requires them to perform design reviews and to develop design changes and maintenance procedures if their designs do not meet the new fuel tank safety standards. As explained in the preamble to the rule, we intended to adopt airworthiness directives to mandate any changes found necessary to address unsafe conditions identified as a result of these reviews.

In evaluating these design reviews, we have established four criteria intended to define the unsafe conditions associated with fuel tank systems that require corrective actions. The percentage of operating time during which fuel tanks are exposed to flammable conditions is one of these criteria. The other three criteria address the failure types under evaluation: single failures, single failures in combination with a latent condition(s), and in-service failure experience. For all four criteria, the evaluations included consideration of previous actions taken that may mitigate the need for further action.

The Joint Aviation Authorities (JAA) has issued a regulation that is similar to SFAR 88. (The JAA is an associated body of the European Civil Aviation Conference (ECAC) representing the civil aviation regulatory authorities of a number of European States who have agreed to co-operate in developing and implementing common safety regulatory standards and procedures.) Under this regulation, the JAA stated that all members of the ECAC that hold type certificates for transport category airplanes are required to conduct a design review against explosion risks.

We have determined that the actions identified in this AD are necessary to reduce the potential of ignition sources inside fuel tanks, which, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane.

### **Relevant Service Information**

Fokker Services B.V. has issued Fokker Service Bulletin SBF50-28-027, Revision 1, dated August 20, 2010. 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-2011-0325; Directorate Identifier 2010-NM-278-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:



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**2011-08-02 Fokker Services B.V.:** Amendment 39-16652. Docket No. FAA-2011-0325; Directorate Identifier 2010-NM-278-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective April 28, 2011.

**Affected ADs**

- (b) None.

**Applicability**

- (c) This AD applies to Fokker Services B.V. Model F.27 Mark 050 airplanes; certificated in any category; all serial numbers.

Note 1: This AD requires revisions to certain operator maintenance documents to include new actions (e.g., inspections) and/or critical design configuration control limitations (CDCCLs). Compliance with these actions and/or CDCCLs is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by this AD, the operator may not be able to accomplish the actions described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval of an alternative method of compliance (AMOC) according to paragraph (l) of this AD. The request should include a description of changes to the required actions that will ensure the continued operational safety of the airplane.

**Subject**

- (d) Air Transport Association (ATA) of America Code 28: Fuel.

**Reason**

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

[T]he Federal Aviation Administration (FAA) has published Special Federal Aviation Regulation (SFAR) 88, and the Joint Aviation Authorities (JAA) has published Interim Policy INT/POL/25/12. The design review conducted by Fokker Services on the Fokker 50 and Fokker 60 in response to these regulations revealed that, if chafing occurs between the Fuel Quantity Probe (FQP) and the probe wiring, with additional factors, this may result in an ignition source in the wing tank vapour space.

This condition, if not corrected, in combination with flammable fuel vapours, could result in a wing fuel tank explosion and consequent loss of the aeroplane.

## **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.

## **Inspection and Installation**

(g) At a scheduled opening of the fuel tanks, but not later than 13 years after the effective date of this AD, do a general visual inspection for the presence of the rubber sleeve and cable tie on the cables of each FQP, in accordance with Part 1 of the Accomplishment Instructions of Fokker Service Bulletin SBF50-28-027, Revision 1, dated August 20, 2010.

(h) If, during the inspection required by paragraph (g) of this AD, an FQP does not have the rubber sleeve or cable tie installed: Before further flight, install the rubber sleeve and cable tie on the affected FQP and wiring, in accordance with Part 2 of the Accomplishment Instructions of Fokker Service Bulletin SBF50-28-027, Revision 1, dated August 20, 2010.

## **Maintenance Program Revision To Add Fuel Airworthiness Limitation**

(i) Before further flight after accomplishing the inspection required by paragraph (g) of this AD: Revise the airplane maintenance program by incorporating the CDCCL specified in paragraph 1.L.(1)(c) of Fokker Service Bulletin SBF50-28-027, Revision 1, dated August 20, 2010.

## **No Alternative Actions, Intervals, and/or CDCCLs**

(j) After accomplishing the revision required by paragraph (i) of this AD, no alternative actions (e.g., inspection, interval) and/or CDCCLs may be used unless the actions, intervals, and/or CDCCLs are approved as an AMOC in accordance with the procedures specified in paragraph (l) of this AD.

## **Credit for Actions Accomplished in Accordance With Previous Service Information**

(k) Actions accomplished before the effective date of this AD according to Fokker Service Bulletin SBF50-28-027, dated May 27, 2010, are considered acceptable for compliance with the corresponding action specified in this AD.

## **FAA AD Differences**

Note 1: This AD differs from the MCAI and/or service information as follows:

Although EASA Airworthiness Directive 2010-0157, dated August 3, 2010, specifies both revising the maintenance program to include airworthiness limitations, and doing certain repetitive actions (e.g., inspections) and/or maintaining CDCCLs, this AD only requires the revision. Requiring a revision of the maintenance program, rather than requiring individual repetitive actions and/or maintaining CDCCLs, requires operators to record AD compliance only at the time the revision is made. Repetitive actions and/or maintaining CDCCLs specified in the airworthiness limitations must be complied with in accordance with 14 CFR 91.403(c).

## **Other FAA AD Provisions**

(l) 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. 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 International Branch, send it to ATTN: Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA 1601 Lind Avenue, SW., Renton, Washington 98057-3356; phone: 425-227-1137; fax: 425-227-1149. Information may be e-mailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. 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. 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.

### **Related Information**

(m) Refer to MCAI EASA Airworthiness Directive 2010-0157, dated August 3, 2010; and Fokker Service Bulletin SBF50-28-027, Revision 1, dated August 20, 2010; for related information.

### **Material Incorporated by Reference**

(n) You must use Fokker Service Bulletin SBF50-28-027, Revision 1, dated August 20, 2010, 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.

(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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on March 25, 2011.

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