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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2015-8472; Directorate Identifier 2014-NM-106-AD; Amendment 39-18603; AD 2016-16-05]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Fokker Services B.V. Airplanes**

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

**ACTION:** Final rule.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for all Fokker Services B.V. Model F.28 Mark 1000, 2000, 3000, and 4000 airplanes. This AD was prompted by a design review that revealed a hot spot may develop in the main fuel tank under certain failure conditions of the solenoid of the level control pilot valve, the reed switch of the main tank overflow valve, the level float switch of the collector tank, or the solenoid of the main tank fueling shut-off valve. This AD requires installing fuses in the wiring of the solenoid of the level control pilot valve, the reed switch of the main tank overflow valve, the level float switch of the collector tank, and the solenoid of the main tank fueling shut-off valve, as applicable. This AD also requires accomplishing concurrent actions and revising the airplane maintenance or inspection program, as applicable, by incorporating fuel airworthiness limitation items and critical design configuration control limitations (CDCCLs). We are issuing this AD to prevent an ignition source in the main fuel tank vapor space, which could result in a fuel tank explosion and consequent loss of the airplane.

**DATES:** This AD is effective September 8, 2016.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of September 8, 2016.

**ADDRESSES:** For service information identified in this final rule, contact Fokker Services B.V., Technical Services Dept., P.O. Box 1357, 2130 EL Hoofddorp, the Netherlands; telephone +31 (0)88-6280-350; fax +31 (0)88-6280-111; email [technicalservices@fokker.com](mailto:technicalservices@fokker.com); Internet <http://www.myfokkerfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-8472.

## Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-8472; 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 this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone 800-647-5527) is Docket 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:** Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 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 by adding an AD that would apply to all Fokker Services B.V. Model F.28 Mark 1000, 2000, 3000, and 4000 airplanes. The NPRM published in the Federal Register on January 20, 2016 (81 FR 3042) ("the NPRM").

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2014-0107, dated May 7, 2014 (referred to after this the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for all Fokker Services B.V. Model F.28 Mark 1000, 2000, 3000, and 4000 airplanes. The MCAI states:

Prompted by an accident \* \* \*, the Federal Aviation Administration (FAA) published Special Federal Aviation Regulation (SFAR) 88 [(66 FR 23086, May 7, 2001)], and the Joint Aviation Authorities (JAA) published Interim Policy INT/POL/25/12.

The review conducted by Fokker Services on the Fokker F28 design in response to these regulations revealed that, under certain failure conditions of the solenoid of the level control pilot valve, the main tank overflow valve reed switch, the collector tank level float switch or the main tank fuelling shut-off valve solenoid, a hot spot may develop in the tank.

This condition, if not corrected, could create an ignition source in the main tank vapour space, possibly resulting in a fuel tank explosion and consequent loss of the aeroplane.

To address this potential unsafe condition, Fokker Services developed a modification to the wiring (installation of fuses) of the affected components.

For the reasons described above, this [EASA] AD requires the installation of fuses in the wiring of the affected components [the solenoid of the level control pilot valve, the reed switch of the main tank overflow valve, the level float switch of the collector tank, and the solenoid of the main tank fuelling shut-off valve] and, subsequently, the implementation of the associated Critical Design Configuration Control Limitations (CDCCL) items [and revision of the maintenance or inspection program].

More information on this subject can be found in Fokker Services All Operators Message AOF28.038#02.

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-8472.

## **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.

## **Explanation of Changes Made to This AD**

We revised certain document citations throughout this AD to meet the Office of the Federal Register's requirements for materials incorporated by reference. These changes are for formatting purposes and do not affect the requirements of this AD.

## **Conclusion**

We reviewed the relevant data and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

## **Related Service Information Under 1 CFR Part 51**

Fokker Services B.V. has issued Manual Change Notification—Maintenance Documentation MCNM-F28-035, Rev 1, dated January 9, 2014; and Fokker Service Bulletin SBF28-28-049, Revision 2, dated November 3, 2014. This service information describes procedures for installing fuses packed in jiffy junctions (i.e., crimped wire in-line junction device(s)).

Fokker Services B.V. has also issued Manual Change Notification—Maintenance Documentation MCNM-F28-034 Rev 1, dated January 9, 2014; and Service Bulletin SBF28-28-051, Revision 2, dated November 3, 2014. This service information describes procedures for reworking the wiring and installing fuses packed in jiffy junctions in the power supply wire of the solenoid in the left and right level control pilot valves.

In addition, Fokker Services B.V. has issued Proforma Service Bulletin SBF28-28-056, dated January 9, 2014; and F28 Appendix Service Bulletin SBF28-28-056/APP01, dated July 15, 2014. This service information describes procedures for installing fuses in the wiring of the solenoid of the level control pilot valve, the reed switch of the main tank overflow valve, the level float switch of the collector tank, and the solenoid of the main tank fueling shut-off valve. This service information also describes certain CDCCLs.

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 the ADDRESSES section.

## **Costs of Compliance**

We estimate that this AD affects 5 airplanes of U.S. registry.  
We estimate the following costs to comply with this AD:

### Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Installation of fuses and revision to maintenance or inspection program	21 work-hours × \$85 per hour = \$1,785	\$5,320	\$7,105	\$35,525

### 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 that 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);
3. Will not affect intrastate aviation in Alaska; and
4. 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.

### 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 airworthiness directive (AD):



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**2016-16-05 Fokker Services B.V.:** Amendment 39-18603; Docket No. FAA-2015-8472; Directorate Identifier 2014-NM-106-AD.

**(a) Effective Date**

This AD is effective September 8, 2016.

**(b) Affected ADs**

This AD affects AD 2011-17-03, Amendment 39-16767 (76 FR 50115, August 12, 2011) ("AD 2011-17-03"); and AD 2011-21-01, Amendment 39-16824 (76 FR 63156, October 12, 2011) ("AD 2011-21-01").

**(c) Applicability**

This AD applies to Fokker Services B.V. Model F.28 Mark 1000, 2000, 3000, and 4000 airplanes, certificated in any category, all serial numbers.

**(d) Subject**

Air Transport Association (ATA) of America Code 28, Fuel.

**(e) Reason**

This AD was prompted by a design review that revealed a hot spot may develop in the main fuel tank under certain failure conditions of the solenoid of the level control pilot valve, the reed switch of the main tank overflow valve, the level float switch of the collector tank, or the solenoid of the main tank fueling shut-off valve. We are issuing this AD to prevent an ignition source in the main fuel tank vapor space, which could result in a fuel tank explosion and consequent loss of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Modification of Main Fuel Tank Wiring**

Within 24 months after the effective date of this AD, install fuses in the wiring of the solenoid of the level control pilot valve, the reed switch of the main tank overflow valve, the level float switch of the collector tank, and the solenoid of the main tank fueling shut-off valve, as applicable, in accordance with the Accomplishment Instructions of Fokker F28 Appendix Service Bulletin SBF28-28-056/APP01, dated July 15, 2014, and Fokker Proforma Service Bulletin SBF28-28-056, dated January 9, 2014.

## **(h) Concurrent Requirements**

Prior to or concurrently with accomplishing the requirements of paragraph (g) of this AD, do the actions specified in paragraphs (h)(1) and (h)(2) of this AD. Accomplishment of the actions in this paragraph terminates the requirement of paragraph (g) of AD 2011-17-03.

(1) Install fuses packed in jiffy junctions (i.e., crimped wire in-line junction device(s)), in accordance with the Accomplishment Instructions of the service information identified in paragraph (h)(1)(i) and the instructions of the service information identified in paragraph (h)(1)(ii) of this AD.

(i) Fokker Service Bulletin SBF28-28-049, Revision 2, dated November 3, 2014.

(ii) Fokker Manual Change Notification–Maintenance Documentation MCNM-F28-035, Rev 1, dated January 9, 2014.

Note 1 to paragraph (h)(1) of this AD: Accomplishment of this action is required by AD 2011-17-03.

(2) Rework the wiring and install fuses packed in jiffy junctions in the power supply wire of the solenoid in the left and right level control pilot valves, in accordance with the Accomplishment Instructions of the service information identified in paragraph (h)(2)(i) and the instructions of the service information identified in paragraph (h)(2)(ii) of this AD. Accomplishment of the actions in this paragraph terminates the requirement of paragraph (g) of AD 2011-21-01, for the actions specified in the Accomplishment Instructions of the service information identified in paragraph (h)(2)(i) and the instructions of the service information identified in paragraph (h)(2)(ii) of this AD only.

(i) Fokker Manual Change Notification–Maintenance Documentation MCNM-F28-034, Rev 1, dated January 9, 2014.

(ii) Fokker Service Bulletin SBF28-28-051, Revision 2, dated November 3, 2014.

Note 2 to paragraph (h)(2) of this AD: Accomplishment of this action is required by AD 2011-21-01.

## **(i) Revision of Maintenance or Inspection Program**

Before further flight after completing the installation specified in paragraph (g) of this AD, or within 30 days after the effective date of this AD, whichever occurs later: Revise the airplane maintenance or inspection program, as applicable, by incorporating the critical design configuration control limitations (CDCCLs) specified in paragraph 1.L.(1)(c) of Fokker Proforma Service Bulletin SBF28-28-056, dated January 9, 2014.

## **(j) No Alternative CDCCLs**

After accomplishing the revision required by paragraph (i) of this AD, no alternative CDCCLs may be used unless the CDCCLs are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (k)(1) of this AD.

## **(k) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance: 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, WA 98057-3356; telephone 425-227-1137; fax 425-227-1149. Information may be emailed 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.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Fokker Services B.V.'s EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

### **(l) Related Information**

Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2014-0107, dated May 7, 2014, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-8472.

### **(m) Material Incorporated by Reference**

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

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Fokker F28 Appendix Service Bulletin SBF28-28-056/APP01, dated July 15, 2014.

(ii) Fokker Manual Change Notification–Maintenance Documentation MCNM-F28-034 Rev 1, dated January 9, 2014.

(iii) Fokker Manual Change Notification–Maintenance Documentation MCNM-F28-035, Rev 1, dated January 9, 2014.

(iv) Fokker Proforma Service Bulletin SBF28-28-056, dated January 9, 2014.

(v) Fokker Service Bulletin SBF28-28-049, Revision 2, dated November 3, 2014.

(vi) Fokker Service Bulletin SBF28-28-051, Revision 2, dated November 3, 2014.

(3) For service information identified in this AD, contact Fokker Services B.V., Technical Services Dept., P.O. Box 1357, 2130 EL Hoofddorp, the Netherlands; telephone +31 (0)88-6280-350; fax +31 (0)88-6280-111; email [technicalservices@fokker.com](mailto:technicalservices@fokker.com); Internet <http://www.myfokkerfleet.com>.

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

(5) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on July 21, 2016.

Michael Kaszycki,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.