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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2009-0563; Directorate Identifier 2008-NM-180-AD; Amendment 39-16005; AD 2009-18-09]

RIN 2120-AA64

Airworthiness Directives; Fokker Model F.28 Mark 0070 and 0100 Airplanes

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

ACTION: Final rule.

SUMMARY: We are superseding an existing 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:

A recent design review has been carried out on the F28 Mark 0070/0100 fuel system in accordance with the guidelines related to FAA SFAR 88 [Special Federal Aviation Regulation No. 88] (Fuel Tank Safety Program) and JAA [Joint Aviation Authorities] INT/POL/25/12. The review revealed that under certain failure conditions, prolonged dry running of the fuel transfer pumps may result in an ignition source in the centre wing fuel tank. This condition, if not corrected, could lead to ignition of flammable fuel vapors, resulting in fuel tank explosion and consequent loss of the aircraft.

* * * * *

We are issuing this AD to require actions to correct the unsafe condition on these products.

DATES: This AD becomes effective October 14, 2009.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of October 14, 2009.

On October 27, 1999 (64 FR 51202, September 22, 1999), the Director of the Federal Register approved the incorporation by reference of certain other publications listed in this AD.

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 June 19, 2009 (74 FR 29144), and proposed to supersede AD 99-20-01, Amendment 39-11329 (64 FR 51202, September 22, 1999). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

A recent design review has been carried out on the F28 Mark 0070/0100 fuel system in accordance with the guidelines related to FAA SFAR 88 [Special Federal Aviation Regulation No. 88] (Fuel Tank Safety Program) and JAA [Joint Aviation Authorities] INT/POL/25/12. The review revealed that under certain failure conditions, prolonged dry running of the fuel transfer pumps may result in an ignition source in the centre wing fuel tank. This condition, if not corrected, could lead to ignition of flammable fuel vapors, resulting in fuel tank explosion and consequent loss of the aircraft.

To address and correct this unsafe condition, new software (version V13.55) has been developed for the Flight Warning Computer (FWC). This software update introduces a decreased time delay of the centre wing fuel tank low pressure alert from 15 minutes to 60 seconds, to stop prolonged dry running of the fuel transfer pumps.

For the reasons described above, this EASA Airworthiness Directive (AD) requires the replacement of the FWC with a modified unit, incorporating software version V13.55.

The corrective actions include revising the airplane flight manual (AFM) to change certain indications and warnings; installing new software for the multifunction display unit (MFDU); and installing a new resistor in the thrust reverser indicator and control system, or an improved thrust reverser unlock indication relay. 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 affects about 4 products of U.S. registry.

The actions that are required by AD 99-20-01 and retained in this AD take about 7 work-hours per product, at an average labor rate of \$80 per work hour. Required parts cost about \$1,593 per product. Based on these figures, the estimated cost of the currently required actions is \$2,153 per product.

We estimate that it takes about 7 work-hours per product to comply with the new basic requirements of this AD. The average labor rate is \$80 per work-hour. Required parts cost about \$5,350 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 U.S. operators to be \$23,640, or \$5,910 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 39-11329 (64 FR 51202, September 22, 1999) and adding the following new AD:



2009-18-09 Fokker Services B.V.: Amendment 39-16005. Docket No. FAA-2009-0563; Directorate Identifier 2008-NM-180-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective October 14, 2009.

Affected ADs

(b) This AD supersedes AD 99-20-01, Amendment 39-11329.

Applicability

(c) This AD applies to airplanes, certificated in any category, as identified in paragraphs (c)(1) and (c)(2) of this AD.

(1) Fokker Model F.28 Mark 0100 airplanes, all serial numbers.

(2) Fokker Model F.28 Mark 0070 airplanes, serial numbers 11521, 11528 through 11537 inclusive, 11545, 11547, 11553, 11557, 11561, 11562, 11566, 11567, 11571, 11572, 11576 through 11579 inclusive, and 11581 through 11583 inclusive. All airplanes with these serial numbers are fitted with center wing fuel tanks.

Subject

(d) Air Transport Association (ATA) of America Codes 31 and 78: Instruments and Engine Exhaust, respectively.

Reason

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

A recent design review has been carried out on the F28 Mark 0070/0100 fuel system in accordance with the guidelines related to FAA SFAR 88 [Special Federal Aviation Regulation No. 88] (Fuel Tank Safety Program) and JAA [Joint Aviation Authorities] INT/POL/25/12. The review revealed that under certain failure conditions, prolonged dry running of the fuel transfer pumps may result in an ignition source in the centre wing fuel tank. This condition, if not corrected, could lead to ignition of flammable fuel vapors, resulting in fuel tank explosion and consequent loss of the aircraft.

To address and correct this unsafe condition, new software (version V13.55) has been developed for the Flight Warning Computer (FWC). This software update introduces a decreased time delay of the centre wing fuel tank low pressure alert from 15 minutes to 60 seconds, to stop prolonged dry running of the fuel transfer pumps.

For the reasons described above, this EASA Airworthiness Directive (AD) requires the replacement of the FWC with a modified unit, incorporating software version V13.55.

The corrective actions include revising the airplane flight manual (AFM) to change certain indications and warnings; installing new software for the multifunction display unit (MFDU); and installing a new resistor in the thrust reverser indicator and control system, or an improved thrust reverser unlock indication relay.

Restatement of Requirements of AD 99-20-01 With No Changes to the Modifications

(f) Unless already done, within 18 months after October 27, 1999 (the effective date of AD 99-20-01), modify the electrical wiring of the FWC in accordance with Part 1 or 2, as applicable, of the Accomplishment Instructions of Fokker Service Bulletin SBF100-31-047, Revision 1, dated March 21, 1997.

Note 1: It is not necessary to install computer software version V10.40 into the FWC, since a later version is available and is required to be installed by AD 99-20-01.

(g) Unless already done, concurrently with the accomplishment of the requirements of paragraph (f) of this AD, install upgraded computer software version V11.45 into the FWC in accordance with Fokker Service Bulletin SBF100-31-051, dated August 15, 1998.

Note 2: AlliedSignal Grimes Aerospace has issued Service Bulletin 80-0610-31-0031, dated May 14, 1998, as an additional source of guidance for installation of the upgraded computer software version into the FWC.

Note 3: Operators should note that Fokker Service Bulletin SBF100-31-051, dated August 15, 1998, specifies prior or concurrent accomplishment of Fokker Service Bulletin SBF100-78-014 (which specifies concurrent accomplishment of Fokker Component Service Bulletin (CSB) P41440-78-04, and prior or concurrent accomplishment of Fokker Service Bulletin SBF100-78-012 and CSB P41440-78-05). Related FAA AD 99-20-02, amendment 39-11330, requires accomplishment of these four other service bulletins.

New Requirements of This AD: Actions and Compliance

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

(1) Within 36 months after the effective date of this AD, replace FWC units having part number (P/N) 80-0610-3-45 and P/N 80-0610-3-50 with modified units having P/N 80-0610-3-55, in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-31-067, Revision 1, dated April 24, 2008.

(2) Within 36 months after the effective date of this AD and concurrently with the accomplishment of paragraph (h)(1) of this AD, revise the Emergency and Abnormal Procedures sections of the airplane flight manual (AFM), as specified in Fokker Manual Change Notification-Operational Documentation MCNO-F100-050, dated January 31, 2008, which is included in Fokker Service Bulletin SBF100-31-067, Revision 1, dated April 24, 2008. These AFM sections provide alterations, which are introduced in Fokker Service Bulletin SBF100-31-067, Revision 1, dated April 24, 2008.

Note 4: Revisions to the Emergency Procedures and Abnormal Procedures sections of the AFM, as specified in Fokker MCNO-F100-050, dated January 31, 2008, may be done by inserting copies of Fokker MCNO-F100-050, dated January 31, 2008, into the AFM. When the information in Fokker MCNO-F100-050, dated January 31, 2008, has been included in general revisions of the AFM, the general revisions may be inserted in the AFM, provided the relevant information in the general revisions are identical to that in Fokker MCNO-F100-050, dated January 31, 2008.

(3) After accomplishing paragraph (h)(1) of this AD, no person may install an FWC having P/N 80-0610-3-45 or P/N 80-0610-3-50, unless it has been modified to P/N 80-0610-3-55 standard in accordance with Honeywell Service Bulletin 80-0610-31-0003, dated February 13, 2008.

(4) Within 36 months after the effective date of this AD, install software version V12 for the MFDU in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-31-060, dated June 1, 2002.

(5) Within 36 months after the effective date of this AD, modify the thrust reverser indication and control system in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-78-016, dated October 1, 1999; or modify the thrust reverser unlock indication relay in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-78-017, dated December 1, 1999.

FAA AD Differences

Note 5: This AD differs from the MCAI and/or service information as follows:

(1) Replacing the MFDU in accordance with Fokker Service Bulletin SBF100-31-060, dated June 1, 2002, is not included in the MCAI; however, this AD includes that action. It is necessary to install a new version of the MFDU software before installing the new version of the FWC software.

(2) Modifying the thrust reverser indication and control system in accordance with Fokker Service Bulletin SBF100-78-016, dated October 1, 1999; or modifying the thrust reverser unlock indication relay in accordance with Fokker Service Bulletin SBF100-78-017, dated December 1, 1999, is not included in the MCAI; however, this AD includes those actions. It is necessary to do one of those actions before installing the MFDU software.

Other FAA AD Provisions

(i) 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.

(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

(j) Refer to MCAI European Aviation Safety Agency Airworthiness Directive 2008-0090, dated May 13, 2008, and the service information identified in Table 1 of this AD, for related information.

Table 1 – Related Information

Service Information -	Revision level -	Dated -
Fokker Service Bulletin SBF100-31-047	1	March 21, 1997
Fokker Service Bulletin SBF100-31-051	Original	August 15, 1998

Fokker Service Bulletin SBF100-31-060	Original	June 1, 2002
Fokker Service Bulletin SBF100-31-067, including Fokker Manual Change Notification-Operational Documentation MCNO-F100-50, dated January 31, 2008	1	April 24, 2008
Fokker Service Bulletin SBF100-78-016	Original	October 1, 1999
Fokker Service Bulletin SBF100-78-017	Original	December 1, 1999

Material Incorporated by Reference

(k) You must use the service information contained in Table 2 of this AD to do the actions required by this AD, unless the AD specifies otherwise.

Table 2 – All Material Incorporated by Reference

Document	Revision	Date
Fokker Service Bulletin SBF100-31-047	1	March 21, 1997
Fokker Service Bulletin SBF100-31-051	Original	August 15, 1998
Fokker Service Bulletin SBF100-31-060	Original	June 1, 2002
Fokker Service Bulletin SBF100-31-067, including Fokker Manual Change Notification-Operational Documentation MCNO-F100-50, dated January 31, 2008	1	April 24, 2008
Fokker Service Bulletin SBF100-78-016	Original	October 1, 1999
Fokker Service Bulletin SBF100-78-017	Original	December 1, 1999

(1) The Director of the Federal Register approved the incorporation by reference of the service information contained in Table 3 of this AD under 5 U.S.C. 552(a) and 1 CFR part 51.

Table 3 – New Material Incorporated by Reference

Document	Revision	Date
Fokker Service Bulletin SBF100-31-060	Original	June 1, 2002
Fokker Service Bulletin SBF100-31-067, including Fokker Manual Change Notification-Operational Documentation MCNO-F100-50, dated January 31, 2008	1	April 24, 2008
Fokker Service Bulletin SBF100-78-016	Original	October 1, 1999
Fokker Service Bulletin SBF100-78-017	Original	December 1, 1999

(2) The Director of the Federal Register previously approved the incorporation by reference of Fokker Service Bulletin SBF100-31-047, Revision 1, dated March 21, 1997; and Fokker Service Bulletin SBF100-31-051, dated August 15, 1998; on October 27, 1999 (64 FR 51202, September 22, 1999).

(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>.

(4) For AlliedSignal Grimes Aerospace and Honeywell service information identified in this AD, contact Honeywell Aerospace, Technical Publications and Distribution, M/S 2101-201, P.O. Box 52170, Phoenix, Arizona 85072-2170; telephone 602-365-5535; fax 602-365-5577; Internet <http://www.honeywell.com>.

(5) 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.

(6) 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 August 18, 2009.

Stephen P. Boyd,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.