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[Page 30749-30752]
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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0231; Directorate Identifier 2007-NM-218-AD; Amendment 39-15534; AD 2008-11-12]

RIN 2120-AA64

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

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

ACTION: Final rule.

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:

To date, there have been at least 10 reported events on Fokker 70 (F28 Mark 0070) and Fokker 100 (F28 Mark 0100) aircraft where the flight crew manually overpowered the autopilot, inadvertently neglecting to disengage the autopilot. * * * When the autopilot is not disengaged, the elevator servomotor is overpowered and the horizontal stabilizer is moved by the Automatic Flight Control & Augmentation System (AFCAS) auto-trim in a direction opposite to the (manual) deflection of the elevator, causing high elevator control forces. This condition, if not corrected, could cause the stabilizer to move to an extreme out-of-trim position, creating the (remote) possibility of loss of control of the aircraft, due to the extreme control loads.

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

DATES: This AD becomes effective July 3, 2008.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of July 3, 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 March 3, 2008 (73 FR 11366). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

To date, there have been at least 10 reported events on Fokker 70 (F28 Mark 0070) and Fokker 100 (F28 Mark 0100) aircraft where the flight crew manually overpowered the autopilot, inadvertently neglecting to disengage the autopilot. Detailed investigation of these incidents has shown that this usually occurs in a high workload environment that demands immediate manual control of the aircraft by the pilot flying, e.g. terrain warning. When the autopilot is not disengaged, the elevator servomotor is overpowered and the horizontal stabilizer is moved by the Automatic Flight Control & Augmentation System (AFCAS) auto-trim in a direction opposite to the (manual) deflection of the elevator, causing high elevator control forces. This condition, if not corrected, could cause the stabilizer to move to an extreme out-of-trim position, creating the (remote) possibility of loss of control of the aircraft, due to the extreme control loads. In the original design of AFCAS, operation of the control wheel-mounted stabilizer trim switches has no effect when the autopilot is engaged. Based on the assumption that stabilizer trim switches will be operated by the pilot flying when encountering high control forces, an Autopilot Disconnect Unit has been developed that disconnects the autopilot when the stabilizer trim switches are operated. Since a potentially unsafe condition has been identified that may exist or develop on aircraft of this type design, this Airworthiness Directive requires the installation of Autopilot Disconnect Units and associated wiring changes.

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.

Correction to Table Information

We have corrected the date of Fokker Drawing W46143, Sheet 03, Issue K, to March 7, 2002, in Table 1 of this AD.

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting the AD with the change described previously. We determined that this change will not increase the economic burden on any operator or increase the scope of the AD.

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 12 products of U.S. registry. We also estimate that it will take about 27 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$80 per work-hour. Required parts will cost about \$3,000 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 parts. 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 \$61,920, or \$5,160 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 adding the following new AD:



2008-11-12 Fokker Services B.V.: Amendment 39-15534. Docket No. FAA-2008-0231; Directorate Identifier 2007-NM-218-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective July 3, 2008.

Affected ADs

- (b) None.

Applicability

- (c) This AD applies to Fokker Model F.28 Mark 0070 and 0100 airplanes, all serial numbers; certificated in any category.

Subject

- (d) Air Transport Association (ATA) of America Code 22: Auto flight.

Reason

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

To date, there have been at least 10 reported events on Fokker 70 (F28 Mark 0070) and Fokker 100 (F28 Mark 0100) aircraft where the flight crew manually overpowered the autopilot, inadvertently neglecting to disengage the autopilot. Detailed investigation of these incidents has shown that this usually occurs in a high workload environment that demands immediate manual control of the aircraft by the pilot flying, e.g. terrain warning. When the autopilot is not disengaged, the elevator servomotor is overpowered and the horizontal stabilizer is moved by the Automatic Flight Control & Augmentation System (AFCAS) auto-trim in a direction opposite to the (manual) deflection of the elevator, causing high elevator control forces. This condition, if not corrected, could cause the stabilizer to move to an extreme out-of-trim position, creating the (remote) possibility of loss of control of the aircraft, due to the extreme control loads. In the original design of AFCAS, operation of the control wheel-mounted stabilizer trim switches has no effect when the autopilot is engaged. Based on the assumption that stabilizer trim switches will be operated by the pilot flying when encountering high control forces, an Autopilot Disconnect Unit has been developed that disconnects the autopilot when the stabilizer trim switches are operated. Since a potentially unsafe condition has been identified that may exist or develop on aircraft of this type design, this Airworthiness Directive requires the installation of Autopilot Disconnect Units and associated wiring changes.

Actions and Compliance

(f) Within 36 months after the effective date of this AD, unless already done, install autopilot disconnect units and do associated wiring changes in accordance with Section 3, "Accomplishment Instructions," of Fokker Service Bulletin SBF100-22-050, dated April 25, 2006, including the drawings listed in Table 1 of this AD.

Table 1 - Drawings Included in Fokker Service Bulletin SBF100-22-050

Fokker Drawing	Sheet	Issue	Date
W41501	057	CQ	April 25, 2006
W41501	058	CQ	April 25, 2006
W41501	059	CQ	April 25, 2006
W41501	060	CQ	April 25, 2006
W41501	061	CR	April 25, 2006
W41501	062	CR	April 25, 2006
W41504	009	K	April 25, 2006
W41504	010	K	April 25, 2006
W41504	011	J	April 25, 2006
W41504	012	L	April 25, 2006
W41504	013	L	April 25, 2006
W46140	27	AR	March 5, 2002
W46140	28	AR	March 8, 2002
W46143	02	K	February 26, 2002
W46143	03	K	March 7, 2002
W46144	06	R	March 4, 2002
W46144	07	S	March 7, 2002
W46912	01	D	March 12, 2002
W46930	01	Original	March 14, 2002
W46930	02	E	March 14, 2002
W46932	01	D	March 13, 2002
W59140	177	GC	February 8, 2006
W59140	178	GB	February 6, 2006
W59140	221	GB	February 6, 2006

FAA AD Differences

Note: 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, FAA, Transport Airplane Directorate, 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 appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(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 MCAI Dutch Airworthiness Directive NL-2006-010, dated July 14, 2006; and Fokker Service Bulletin SBF100-22-050, dated April 25, 2006, including the drawings listed in Table 1 of this AD, for related information.

Material Incorporated by Reference

(i) You must use Fokker Service Bulletin SBF100-22-050, dated April 25, 2006, including the drawings specified in Table 2 of this AD, to do the actions required by this AD, unless the AD specifies otherwise.

Table 2 - Drawings Included in Fokker Service Bulletin SBF100-22-050

Fokker Drawing	Sheet	Issue	Date
W41501	057	CQ	April 25, 2006
W41501	058	CQ	April 25, 2006
W41501	059	CQ	April 25, 2006
W41501	060	CQ	April 25, 2006
W41501	061	CR	April 25, 2006
W41501	062	CR	April 25, 2006
W41504	009	K	April 25, 2006
W41504	010	K	April 25, 2006
W41504	011	J	April 25, 2006
W41504	012	L	April 25, 2006
W41504	013	L	April 25, 2006
W46140	27	AR	March 5, 2002

W46140	28	AR	March 8, 2002
W46143	02	K	February 26, 2002
W46143	03	K	March 7, 2002
W46144	06	R	March 4, 2002
W46144	07	S	March 7, 2002
W46912	01	D	March 12, 2002
W46930	01	Original	March 14, 2002
W46930	02	E	March 14, 2002
W46932	01	D	March 13, 2002
W59140	177	GC	February 8, 2006
W59140	178	GB	February 6, 2006
W59140	221	GB	February 6, 2006

(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.

(3) You may review copies at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or 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 May 14, 2008.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E8-11501 Filed 5-28-08; 8:45 am]