[Federal Register: May 19, 2005 (Volume 70, Number 96)]
[Rules and Regulations]
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[DOCID:fr19my05-10]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2005-21238; Directorate Identifier 2005-NE-12-AD; Amendment 39-14093; AD 2005-10-16]

RIN 2120-AA64

Airworthiness Directives; General Electric (GE) CF6-80E1 Series Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for General Electric (GE) CF6-80E1 series turbofan engines that have an electronic control unit (ECU) with software version E.1.M. or earlier installed. This AD requires installing improved software for the ECU. This AD results from an uncommanded engine acceleration event caused by a failure of the ECU digital interface unit (DIU). We are issuing this AD to prevent an undetected failure of the ECU DIU, which could result in uncommanded acceleration to the overspeed limit without response to throttle commands. The airplane could then experience asymmetric thrust.

DATES: This AD becomes effective June 3, 2005. The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of June 3, 2005.

We must receive any comments on this AD by July 18, 2005.

ADDRESSES: Use one of the following addresses to comment on this AD.

- DOT Docket Web site: Go to *http://dms.dot.gov* and follow the instructions for sending your comments electronically.
- Government-wide rulemaking Web site: Go to *http://www.regulations.gov* and follow the instructions for sending your comments electronically.
- Mail: Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-001.
- Fax: (202) 493-2251.
- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Contact General Electric Company via Lockheed Martin Technology Services, Lockheed Martin Technical Services, Distribution Center, 1330 Kemper Meadow Drive, Suite 110-C, Cincinnati, Ohio 45240, telephone (513) 672-8400; fax (513) 672-8422, or E-mail: *lmco_distribution@ae.ge.com* for the service information identified in this AD; or

Sign on to the GEAE Customer Web Center (CWC): *https://customer.geae.com*.

FOR FURTHER INFORMATION CONTACT: Karen Curtis, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; telephone (781) 238-7192; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: In June 2003, a CF6-80E1 engine experienced an uncommanded acceleration and did not respond to throttle commands during cruise. The pilot shut down the engine by switching off the master lever. GE investigated the uncommanded acceleration and confirmed that failure of the ECU DIU caused the event. This failure corrupted all the digital interfaces with the airplane, ECU pressure subsystem, and opposite ECU channel. The ECU used a default ambient pressure value, which scheduled fuel flow to a higher than intended value. In addition, the DIU failure corrupted the channel-health and channel-activity data communication between channels and allowed the failed channel to remain active while the healthy channel became active. The existing ECU software logic did not detect and record the DIU fault and did not ensure control of the engine by the healthy channel. Failure of the DIU, if not detected, could result in an uncommanded engine acceleration to the overspeed limit, without response to throttle commands. The airplane may then experience asymmetric thrust.

Relevant Service Information

We have reviewed and approved the technical contents of GE Aircraft Engines CF6-80E1 Service Bulletin (SB) 73-0070, dated June 22, 2004, and SB 73-0070, Revision 01, dated March 21, 2005, that describe procedures for uploading new software E.1.N. to the ECU.

FAA's Determination and Requirements of This AD

Although no airplanes that are registered in the United States use these engines, the possibility exists that these engines could be used on airplanes that are registered in the United States in the future. The unsafe condition described previously is likely to exist or develop on other GE CF6-80E series turbofan engines of the same type design that have an ECU with software version E.1.M or earlier installed. We are issuing this AD to prevent undetected failure of the ECU DIU. This AD requires installing improved ECU software version E.1.N at the next ECU exposure. You must use the service information described previously to perform the actions required by this AD.

FAA's Determination of the Effective Date

Since there are currently no domestic operators of these GE CF6-80E1 series turbofan engines, notice and opportunity for public comment before issuing this AD are unnecessary. A situation exists that allows the immediate adoption of this regulation.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety and was not preceded by notice and an opportunity for public comment; however, we invite you to send us any written relevant data, views, or arguments regarding this AD. Send your comments to an address listed under

ADDRESSES. Include "AD Docket No. 2005-10-16, FAA-2005-21238; Directorate Identifier 2005-NE-12-AD" in the subject line of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify it.

We will post all comments we receive, without change, to *http://dms.dot.gov*, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of the DMS web site, anyone can find and read the comments in any of our dockets, including the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78) or you may visit *http://dms.dot.gov*.

Examining the AD Docket

You may examine the docket that contains the AD, any comments received, and any final disposition in person at the DMS Docket Offices between 9:00 a.m. and 5:00 p.m., Monday through Friday, except Federal holidays. The Docket Office (telephone (800) 647-5227) is located on the plaza level of the Department of Transportation Nassif Building at the street address stated in ADDRESSES. Comments will be available in the AD docket shortly after the DMS receives them.

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 have 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 the regulation:

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 summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary at the address listed under ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Under the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
Federal Aviation
Administration

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2005-10-16 General Electric Company: Amendment 39-14093. Docket No. FAA-2005-21238; Directorate Identifier 2005-NE-12-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective June 3, 2005.

Affected ADs

(b) None.

Applicability

(c) This AD applies to all General Electric (GE) CF6-80E1 series turbofan engines with electronic control unit (ECU) part numbers (P/N's) 1799M99P12, 1851M74P05, 1851M80P05, and 1960M84P03 or earlier installed. These (GE) CF6-80E1 series engines are installed on, but not limited to, Airbus Industrie (AI) A330 airplanes.

Unsafe Condition

(d) This AD results from an uncommanded engine acceleration event caused by a failure of the ECU digital interface unit (DIU). We are issuing this AD to prevent undetected failure of the ECU DIU, which could result in uncommanded acceleration to the overspeed limit without response to throttle commands. The airplane could then experience asymmetric thrust.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified unless the actions have already been done.

GE CF6-80E1A4/B Engines

(f) For GE CF6-80E1A4/B engines with ECU's that already have software version E.1.N installed, no further action is required.

All Other CF6-80E1 Series Turbofan Engines

(g) At next ECU exposure, upload improved software version E.1.N. Use the Accomplishment Instructions of either of GE Aircraft Engines CF6-80E1 Service Bulletin (SB) 73-0070, dated June 22, 2004, or SB 73-0070, Revision 01, dated March 21, 2005.

(h) For the purposes of this AD, the next ECU exposure is defined as the next removal of the ECU for repair, or the next engine shop visit, whichever occurs sooner.

(i) After the effective date of this AD, do not install any ECU that has a software version earlier than E.1.N onto any engine.

Alternative Methods of Compliance

(j) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Related Information

(k) None.

Material Incorporated by Reference

(l) You must use of General Electric (GE) Aircraft Engines CF6-80E1 Service Bulletin (SB) 73-0070, dated June 22, 2004, or SB 73-0070, Revision 01, dated March 21, 2005 to install the updated software required by this AD. The Director of the Federal Register approved the incorporation by reference of this service bulletin in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact General Electric Company via Lockheed Martin Technology Services, Lockheed Martin Technical Services, Distribution Center, 1330 Kemper Meadow Drive, Suite 110-C, Cincinnati, Ohio 45240, telephone (513) 672-8400; fax (513) 672-8422, or e-mail: *lmco_distribution@ae.ge.com* for the service information identified in this AD; or

Go to the GEAE Customer Web Center (CWC): *https://customer.geae.com*. You may review copies at the Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-001, on the Internet at *http://dms.dot.gov*, 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/code_of_federal_regulations/ibr_locations.html*.

Issued in Burlington, Massachusetts, on May 12, 2005.

Robert Ganley,

Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 05-9887 Filed 5-18-05; 8:45 am]
BILLING CODE 4910-13-P