[Federal Register: September 8, 2005 (Volume 70, Number 173)]
[Rules and Regulations]
[Page 53295-53296]
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[DOCID:fr08se05-1]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2004-18869; Directorate Identifier 2004-NE-23-AD; Amendment 39-14256; AD 2005-18-16]

RIN 2120-AA64

Airworthiness Directives; General Electric Company CF34-3A1 Turbofan Engines

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

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for General Electric Company (GE) CF34-3A1 turbofan engines installed on Bombardier series Regional Jets with certain high pressure turbine (HPT) rotating components installed. This AD requires removal from service of certain HPT components prior to the parts exceeding their designated life limits. This AD results from the discovery that the manufacturer removed certain part numbers of HPT rotating components from the Life Limits section of the CF34 Engine Manual, SEI-756. The effect of this manual change was the removal of life limits from certain components that are eligible for installation in GE CF34-3A1 engines. We are issuing this AD to impose life limits on these HPT rotating components to prevent low cycle fatigue (LCF) cracking and failure of those components, which could result in uncontained engine failure and damage to the airplane.

DATES: This AD becomes effective October 13, 2005.

ADDRESSES: You may examine the AD docket on the Internet at *http://dms.dot.gov* or in Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Robert Grant, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7757; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR part 39 with a proposed airworthiness directive. The proposed AD applies to GE CF34-3A1 turbofan engines with certain HPT rotating components installed. We published the proposed AD in the Federal Register on August 16, 2004 (69 FR 50344). That action proposed a requirement for removal from service of certain HPT components prior to their exceeding designated life limits.

Examining the AD Docket

You may examine the docket that contains the AD, any comments received, and any final disposition in person at the Docket Management Facility Docket Offices between 9 a.m. and 5 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.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the comments received.

Identify Affected Engines

One commenter states that the AD should identify the specific engines to which it applies or identify the applicable engines by the maintenance manual used. We agree that applicability should be clarified. We have reworded the AD to indicate that it applies only to CF34-3A1 engines installed on Bombardier series Regional Jet Model CL-600-2B19 (Regional Jet Series 100 and 440) airplanes with one or more of certain HPT rotating components installed.

Challenger Aircraft Not Affected

Another commenter states that a note should be added to the AD indicating that this AD does not apply to CF34-3A1 engines installed on Challenger aircraft. We agree. We have clarified this AD to indicate that it applies only to engines installed on Bombardier series Regional Jet Model CL-600-2B19 (Regional Jet Series 100 and 440) airplanes with one or more of certain HPT rotating components installed.

Conclusion

We have carefully reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD with the changes described previously. We have determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Costs of Compliance

We estimate that this AD would affect eight CF34-3A1 turbofan engines installed on airplanes of U.S. registry. We estimate that no affected engine has a listed HPT rotating component near its original type design life limit. Therefore, we estimate that this AD will not result in any additional direct labor or part costs.

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 this AD:

(1) Is not a "significant regulatory action" under Executive Order 12866;

(2) Is not a "significant rule" under 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, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration 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:

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/aircraft/safety/alerts/

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).

2005-18-16 General Electric Company: Amendment 39-14256. Docket No. FAA-2004-18869; Directorate Identifier 2004-NE-23-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective October 13, 2005.

Affected ADs

(b) None.

Applicability

(c) This AD applies to General Electric CF34-3A1 turbofan engines installed on Bombardier series Regional Jet Model CL-600-2B19 (Regional Jet Series 100 and 440) airplanes with one or more of the HPT rotating components installed, listed in the following Table 1:

TABLE 1.—HPT ROTATING COMPO-NENTS WITH LIFE LIMITS RESTORED

Part No.	Nomenclature
6078T90P01	Seal, Balance Piston Air.
6017T00P05	Shaft, HPT Rotor.
4027T15P03	Plate, Stage 1 Front Cooling.
6078T93P01	Disk, Stage 1 Turbine.
6078T93P02	Disk, Stage 1 Turbine.
5041T70P03	Plate, Stage 1 Aft Cooling.
5023T97P03	Plate, Stage 2 Rear Cooling.
6078T94P01	Disk, Stage 2 Turbine.
6078T94P02	Disk, Stage 2 Turbine.
5042T29P02	Plate, Stage 2 Front Cooling.
5041T67P02	Coupling, Outer Torque.
5079T02P01	Coupling, Inner Torque.

Unsafe Condition

(d) This AD results from the discovery that the manufacturer removed the HPT rotating component part numbers, listed in Table 1 of this AD, from the HPT Life Limits section of the CF34 Engine Manual, SEI-756. We view this as a change to the life limit of the part, removing the type design life limit and imposing an unlimited life on the part. We are issuing this AD to re-impose life

limits on the HPT rotating components with part numbers listed in Table 1 of this AD to prevent LCF cracking and failure of those components, which could result in uncontained engine failure and damage to the airplane.

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.

(f) Remove from service the HPT rotating components listed in Table 1 of this AD before exceeding the life limit of 6,000 cycles-since-new.

Alternative Methods of Compliance

(g) 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

(h) GE Temporary Revision No. 05-0073, and Temporary Revision No. 05-0074, for CF34 Engine Manual, SEI-756, also pertain to the subject of this AD.

Issued in Burlington, Massachusetts, on August 31, 2005.
Peter A. White,
Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.
[FR Doc. 05-17761 Filed 9-7-05; 8:45 am]
BILLING CODE 4910-13-P