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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2001-NE-37-AD; Amendment 39-12857; AD 2002-16-18]

RIN 2120-AA64

Airworthiness Directives; CFM International CFM56-5B and -7B Series Turbofan Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), that is applicable to CFM International (CFMI) CFM56-5B and -7B series turbofan engines. This amendment requires retirement of stage 2 low pressure turbine (LPT) nozzle segments and stage 3 LPT nozzle segments, listed in Table 1 of this AD, from service before accumulating 25,000 cycles-since-new (CSN) or at the next LPT module shop visit when either stage 2 LPT nozzle segments or stage 3 LPT nozzle segments are exposed, whichever occurs first. This amendment also requires installation of new design (either new or reworked) nozzle segments, that will aid in containment of the LPT rotor in the event of LPT shaft failure. This amendment is prompted by a report of an LPT shaft failure caused by a hydromechanical unit (HMU) malfunction that induced a higher than anticipated LPT rotor overspeed. The actions specified by this AD are intended to aid in containment of the LPT rotor in the event of LPT shaft failure, which could result in uncontained engine failure and damage to the airplane.

DATES: Effective September 18, 2002.

ADDRESSES: The service information referenced in this AD may be obtained from CFM International, Technical Publications Department, 1 Neumann Way, Cincinnati, OH 45215; telephone (513) 552-2800; fax (513) 552-2816.

FOR FURTHER INFORMATION CONTACT: James Rosa, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7152; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that is applicable to CFMI CFM56-5B and -7B series turbofan engines was published in the Federal Register on April 4, 2002 (67 FR 16069). That action proposed to require retirement of stage 2 LPT nozzle segments and stage 3 LPT nozzle segments, listed in Table 1 of that proposed AD, from service before accumulating 25,000 cycles-since-new (CSN), or by October 31, 2008, whichever occurs earlier.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Remove Compliance Date

Three commenters request that the compliance date of October 31, 2008, be removed. This date would not provide enough engine operating time to reach scheduled major maintenance when the affected parts would be exposed.

The FAA agrees. The alternate AD compliance requirement of retiring stage 2 LPT nozzle segments and stage 3 LPT nozzle segments from service before accumulating 25,000 CSN meets the manufacturer's removal criteria. In addition, the FAA wishes to clarify that compliance with this AD is required before accumulating 25,000 CSN or at the next LPT module shop visit when either stage 2 LPT nozzle segments or stage 3 LPT nozzle segments are exposed, whichever occurs first.

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes described previously. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Economic Analysis

There are approximately 3,187 CFMI CFM56-5B and -7B series engines of the affected design in the worldwide fleet. The FAA estimates that 910 engines installed on airplanes of U.S. registry would be affected by this AD. The FAA also estimates that it would take approximately 10 work hours per engine to perform the actions, and that the average labor rate is \$60 per work hour. Required parts would cost approximately \$34,984 per engine. Based on these figures, the total cost of the AD on U.S. operators is estimated to be \$32,381,440.

Regulatory Analysis

This final rule does not have federalism implications, as defined in Executive Order 13132, because it would 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. Accordingly, the FAA has not consulted with state authorities prior to publication of this final rule.

For the reasons discussed above, I certify that this action (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. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, pursuant to 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.

Sec. 39.13 [Amended]

2. Section 39.13 is amended by adding a new airworthiness directive to read as follows:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

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

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).

2002-16-18 CFM International: Amendment 39-12857. Docket No. 2001-NE-37-AD.

Applicability

This airworthiness directive (AD) is applicable to CFM International (CFMI) CFM56-5B and -7B series turbofan engines. These engines are installed on, but not limited to Boeing 737-600, -700, -800, and -900; and Airbus A319, A320, and A321 airplanes.

Note 1: This AD applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance

Compliance with this AD is required before accumulating 25,000 cycles-since-new (CSN) on the parts listed in Table 1 of this AD, or at the next low pressure turbine (LPT) module shop visit when either stage 2 LPT nozzle segments or stage 3 LPT nozzle segments are exposed, whichever occurs first, unless already done.

To aid in containment of the LPT rotor in the event of LPT shaft failure, which could result in uncontained engine failure and damage to the airplane, do the following:

(a) Retire from service stage 2 LPT nozzle segments and stage 3 LPT nozzle segments listed in the following Table 1, and install new design (either new or reworked) nozzle segments:

TABLE 1.—STAGE 2 AND STAGE 3 LPT NOZZLE SEGMENT PART NUMBERS TO BE RETIRED

Nozzle segments	Part numbers
(1) Stage 2	338-109-104-0, 338-109-105-0, 338-109-106-0, 338-109-204-0, 338-109-205-0, 338-109-206-0, 338-109-304-0, 338-109-305-0, 338-109-306-0.
(2) Stage 3.	338-109-702-0, 338-109-802-0.

(b) Information on reworking stage 2 LPT nozzle segments and stage 3 LPT nozzle segments, listed in Table 1 of this AD, can be found in CFM International Service Bulletins (SB's) 72-0328, dated May 25, 2000, for CFM56-5 series engines, and SB 72-0241, dated May 25, 2000, for CFM56-7 series engines.

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Engine Certification Office (ECO). Operators must submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, ECO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the ECO.

Special Flight Permits

(d) Special flight permits may be issued in accordance with Secs. 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be done.

Effective Date

(e) This amendment becomes effective on September 18, 2002.

Issued in Burlington, Massachusetts, on August 5, 2002.

Jay J. Pardee,
Manager, Engine and Propeller Directorate, Aircraft Certification Service.
[FR Doc. 02-20515 Filed 8-13-02; 8:45 am]
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