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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-1353; Directorate Identifier 2008-NE-46-AD; Amendment 39-15779; AD 2009-01-01]

RIN 2120-AA64

Airworthiness Directives; CFM International, S. A. CFM56-5B 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 CFM International, S. A. CFM56-5B series turbofan engines. This AD requires reviewing exhaust gas temperature (EGT) monitoring records to determine EGT deterioration margin, and for airplanes where both engines have greater than 80° centigrade (C) deterioration of EGT margin, borescope-inspecting the high-pressure compressor (HPC) of both engines. This AD also requires removing from service any engine that does not pass the borescope inspection, and if both engines pass, removing and replacing one of the engines with an engine that has 80 °C or less deterioration of EGT margin. This AD also requires continuous monitoring of EGT margin on engines in service, to prevent two engines on an airplane from having greater than 80 °C of deterioration of EGT margin. This AD results from an Airbus A321 airplane powered by CFM56-5B1/P turbofan engines experiencing HPC stalls during climb out after takeoff. We are issuing this AD to prevent HPC stalls, which could prevent continued safe flight or landing.

DATES: This AD becomes effective December 31, 2008.

We must receive any comments on this AD by March 2, 2009.

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

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
- Mail: U.S. Docket Management Facility, Department of Transportation, 1200 New Jersey Avenue, SE., West Building, Ground Floor, Room W12-140, Washington, DC 20590-0001.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- Fax: (202) 493-2251.

FOR FURTHER INFORMATION CONTACT: Stephen K. Sheely, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: stephen.k.sheely@faa.gov; telephone (781) 238-7750; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: On December 15, 2008, an Airbus A321 airplane powered by CFM56-5B1/P turbofan engines experienced HPC stalls in both engines during climb out after takeoff. The flight crew restored power to both engines by retarding the throttles to flight idle. The crew continued the climb out phase of the flight, declared an emergency, and returned to the airport without incident. This condition, if not corrected, could result in HPC stalls, which could prevent continued safe flight or landing.

FAA's Determination and Requirements of This AD

The unsafe condition described previously is likely to exist or develop on other CFM International, S. A. CFM56-5B series turbofan engines of the same type design. For that reason, we are issuing this AD to prevent HPC stalls, which could prevent continued safe flight or landing. This AD requires the following:

- Reviewing EGT monitoring records to determine EGT deterioration margin; and
- For airplanes where both engines have greater than 80 °C deterioration of EGT margin, doing the following:
 - Borescope-inspecting HPC stages 1, 3, 6, and 9 of both engines.
 - Removing from service any engine that does not pass the borescope inspection; and
 - If both engines pass the borescope inspection, then removing one of the engines from service and replacing it with an engine that has 80 °C or less deterioration of EGT margin.

FAA's Determination of the Effective Date

Since an unsafe condition exists that requires the immediate adoption of this AD, we have found that notice and opportunity for public comment before issuing this AD are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Interim Actions

These actions are interim actions and we anticipate further rulemaking actions in the future, including further action to address the remaining engines in service that are above 80 °C deterioration of EGT margin.

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. FAA-2008-1353; Directorate Identifier 2008-NE-46-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://www.regulations.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 Web site, anyone can find and read the comments in any of our dockets, including, if provided, 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).

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 this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is the same as the Mail address provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

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 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, 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:



2009-01-01 CFM International, S. A.: Amendment 39-15779. Docket No. FAA-2008-1353; Directorate Identifier 2008-NE-46-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective December 31, 2008.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to CFM International, S. A. CFM56-5B1, -5B2, -5B4, -5B5, -5B6, -5B7, -5B1/P, -5B2/P, -5B3/P, -5B3/P1, -5B4/P, -5B5/P, -5B6/P, -5B7/P, -5B8/P, -5B9/P, -5B1/2P, -5B2/2P, -5B3/2P, -5B3/2P1, -5B4/2P, -5B6/2P, -5B4/P1, -5B4/2P1, and -5B9/2P turbofan engines. These engines are installed on, but not limited to, Airbus A318, A319, A320, and A321 series airplanes.

Unsafe Condition

(d) This AD results from an Airbus A321 airplane powered by CFM56-5B1/P turbofan engines experiencing high-pressure compressor (HPC) stalls during climb out after takeoff. We are issuing this AD to prevent HPC stalls, which could prevent continued safe flight or landing.

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) Within 14 days of the effective date of this AD do the following:

(1) Review exhaust gas temperature (EGT) monitoring records to determine EGT deterioration margin.

(2) For airplanes where both engines have greater than 80° centigrade (C) deterioration of EGT margin, do the following:

(i) Borescope-inspect HPC stages 1, 3, 6, and 9 of both engines. Information on borescope inspection of the HPC can be found in the aircraft maintenance manual.

(ii) Remove from service any engine that does not pass the borescope inspection requirements found in the aircraft maintenance manual.

(iii) If both engines pass the borescope inspection, then remove one of the engines from service and replace it with an engine that has 80 °C or less deterioration of EGT margin.

(3) Continue monitoring EGT margin on engines in service, to prevent two engines on an airplane from having greater than 80 °C deterioration of EGT margin. Information on monitoring EGT can be found in CFM International, S. A. Service Bulletin (SB) No. CFM56-5B S/B 72-0722, dated December 22, 2008.

Interim Actions

(g) These actions are interim actions and we anticipate further rulemaking actions in the future, including further action to address the remaining engines in service that are above 80 °C deterioration of EGT margin.

Alternative Methods of Compliance (AMOCs)

(h) The Manager, Engine Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

Related Information

(i) Refer to MCAI EASA Airworthiness Directive 2008-0227-E, dated December 23, 2008, and CFM International, S. A. SB No. CFM56-5B S/B 72-0722, dated December 22, 2008, for related information.

(j) Contact CFM International, S. A., Technical Publications Department, 1 Neumann Way, Cincinnati, OH 45215; telephone (513) 552-2800; fax (513) 552-2816, for a copy of this service bulletin.

(k) Contact Airbus, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France, for a copy of the aircraft maintenance manual.

(l) Contact Stephen K. Sheely, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: stephen.k.sheely@faa.gov; telephone (781) 238-7750; fax (781) 238-7199, for more information about this AD.

Material Incorporated by Reference

(m) None.

Issued in Burlington, Massachusetts, on December 23, 2008.
Francis A. Favara,
Manager, Engine and Propeller Directorate,
Aircraft Certification Service.