



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-9128; Directorate Identifier 2016-NE-19-AD; Amendment 39-18820; AD 2017-05-09]

RIN 2120-AA64

Airworthiness Directives; CFM International S.A. Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain CFM International S.A. (CFM) CFM56-5 turbofan engines. This AD requires removal of the radial drive shaft (RDS) assembly and the RDS outer housing and their replacement with parts eligible for installation. This AD was prompted by reports of the failure of the RDS on CFM CFM56-5B engines. We are issuing this AD to correct the unsafe condition on these products.

DATES: This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact CFM International Inc., Aviation Operations Center, 1 Neumann Way, M/D Room 285,

Cincinnati, OH 45125; phone: 877-432-3272; fax: 877-432-3329; email: aviation.fleetsupport@ge.com. You may view this service information at the FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9128.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9128; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the mandatory continuing airworthiness information (MCAI), the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Kasra Sharifi, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7773; fax: 781-238-7199; email: kasra.sharifi@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to the specified products. The NPRM was published in the Federal Register on November 1, 2016 (81 FR 75761). The NPRM proposed to correct an unsafe condition for the specified products.

We have received 9 reports of failure of the RDS on CFM CFM56-5B engines. CFM has identified an affected population of RDSs suspected of generating unbalance levels that would lead to failure of the RDS bearing. This AD requires removal of the RDS assembly and the RDS outer housing for the affected population. This condition, if not corrected, could result in failure of the RDS, which could lead to failure of one or more engines, loss of thrust control, and damage to the airplane.

Comments

We gave the public the opportunity to participate in developing this AD. We considered the comments received.

Request to Withdraw NPRM

Delta Air Lines (Delta) requested that we withdraw the NPRM or reduce the applicability to RDS assemblies not returned to CFM. Delta stated that the suspect population will likely be in voluntary compliance by the effective date of this AD. Delta also stated that CFM requested that the affected parts be returned to CFM, which will ensure no returned parts are installed in the future.

We disagree. The FAA has found that an unsafe condition exists, which requires removal of parts. The SB alone does not constitute a regulatory requirement, so this AD

is required to mandate removal of parts from service. Compliance with the actions specified in this AD are mandatory, including the portions of the SB that are incorporated by reference (IBR) in this AD. We did not change this AD.

Request to Revise Compliance

Delta requested that this AD include a statement in the compliance section stating that compliance can be shown by a records review. Delta reasons that this will allow a credit for previous action.

The phrase “unless already done...” in paragraph (f) of this AD already provides credit for operators that have complied with this AD before the effective date of this AD. We did not change this AD.

Request to Revise Compliance

CFM requested that we expand the applicability of this AD to include all CFM56-5 models not listed in paragraph (c) of this AD. CFM reasons that the affected RDS part numbers (P/Ns) are eligible for installation on other CFM56-5 model series not listed in paragraph (c) of this AD.

We disagree. We are issuing this AD to prevent failure of the RDS, which could lead to dual in-flight shutdown (IFSD), in the affected engines, loss of control, and damage to the airplane. RDS P/Ns are a known population and applicability represents those engines in which they were installed. We did not change this AD.

Conclusion

We reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting this AD as proposed.

Related Service Information under 1 CFR Part 51

CFM International S.A. has issued Service Bulletin (SB) CFM56-5B S/B 72-0934, dated August 1, 2016. The SB describes procedures for removal of the affected RDS assembly and the RDS outer housing. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

We estimate that this AD affects eight engines installed on airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Removal and replacement of the RDS assembly and RDS outer housing	6 work-hours X \$85 per hour = \$510	\$37,000	\$37,510	\$300,080

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),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and
- (4) 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.

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 airworthiness directive (AD):

2017-05-09 **CFM International S.A.:** Amendment 39-18820; Docket No. FAA-2016-9128; Directorate Identifier 2016-NE-19-AD.

(a) Effective Date

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to CFM International S.A. (CFM) CFM56-5B models, CFM56-5B/P models, CFM56-5B/3 models, CFM56-5B/2P models, CFM56-5B/P1 models, CFM56-5B/2P1 models, and CFM56-5B/3B1 models engines with a radial drive shaft (RDS) serial number (S/N) listed in Appendix A of CFM Service Bulletin (SB) CFM56-5B S/B 72-0934, dated August 1, 2016, installed.

(d) Subject

Air Transport Association (ATA) of America Code 83, Accessory Gearboxes.

(e) Unsafe Condition

This AD was prompted by reports of the failure of the RDS on CFM CFM56-5B engines. We are issuing this AD to prevent failure of the RDS, which could lead to failure of one or more engines, loss of thrust control, and damage to the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

Within 6 months after the effective date of this AD, remove the RDS assembly, part number (P/N) 305-165-101-0, and RDS outer housing, P/N 301-295-106-0, and replace with parts eligible for installation.

(g) Installation Prohibition

After the effective date of this AD, do not install on any engine, an RDS with an S/N identified in Appendix A of CFM SB CFM56-5B S/B 72-0934, dated August 1, 2016.

(h) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request. You may email your request to: ANE-AD-AMOC@faa.gov.

(i) Related Information

For more information about this AD, contact Kasra Sharifi, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7773; fax: 781-238-7199; email: kasra.sharifi@faa.gov.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) CFM International S.A. (CFM) Service Bulletin CFM56-5B S/B 72-0934, dated August 1, 2016.

(ii) Reserved.

(3) For CFM service information identified in this AD, contact CFM International Inc., Aviation Operations Center, 1 Neumann Way, M/D Room 285, Cincinnati, OH 45125; phone: 877-432-3272; fax: 877-432-3329; email: aviation.fleetsupport@ge.com.

(4) You may view this service information at FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

(5) You may view this service information 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 Burlington, Massachusetts, on February 24, 2017.

Carlos A Pestana,
Acting Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

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