



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2019-0800; Product Identifier 2005-NE-24-AD;]**

**RIN 2120-AA64**

**Airworthiness Directives; General Electric Company Turbofan Engines**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to supersede Airworthiness Directive (AD) 2005-23-09, which applies to all General Electric Company (GE) CF6-80E1A1, -80E1A2, -80E1A3, -80E1A4, and -80E1A4/B model turbofan engines. AD 2005-23-09 requires initial and repetitive fluorescent-penetrant inspections (FPI) of certain areas of high-pressure compressor (HPC) cases, part number (P/N) 1509M97G07 and P/N 2083M69G03. Since the FAA issued AD 2005-23-09, GE performed an updated lifing analysis on the HPC case. As a result, GE found additional locations on the cases requiring FPI, revised the inspection interval for performing FPI of the existing location, and added an additional P/N HPC case that requires inspection. This proposed AD would require an update of the Airworthiness Limitations Section (ALS) of GE Engine Manual GEK99376 and the operator's existing continuous airworthiness maintenance program (CAMP). The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact General Electric Company, GE Aviation, Room 285, 1 Neumann Way, Cincinnati, OH, 45215; phone: 513-552-3272; email: [aviation.fleetsupport@ge.com](mailto:aviation.fleetsupport@ge.com). You may view this service information at the FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA, 01803. For information on the availability of this material at the FAA, call 781-238-7759.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0800; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Scott Stevenson, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA, 01803; phone: 781-238-7132; fax: 781-238-7199; email: [scott.m.stevenson@faa.gov](mailto:scott.m.stevenson@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2019-0800; Product Identifier 2005-NE-24-AD” at the beginning of your comments. The FAA specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. The FAA will consider all comments received by the closing date and may amend this NPRM because of those comments.

The FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact received about this proposed AD.

### **Discussion**

The FAA issued AD 2005-23-09, Amendment 39-14367 (70 FR 67901, November 9, 2005), (“AD 2005-23-09”), for all GE CF6-80E1A1, -80E1A2, -80E1A3, -80E1A4, and -80E1A4/B model turbofan engines. AD 2005-23-09 requires initial and repetitive FPI of certain areas of HPC cases, P/N 1509M97G07 and P/N 2083M69G03. AD 2005-23-09 resulted from the discovery that HPC cases, P/N 1509M97G07 and P/N 2083M69G03, were inadvertently left out of the ALS, Chapter 05-21-02, of GE Engine Manual, GEK 99376, Revision 17. The FAA issued AD 2005-23-09 to prevent failure of the HPC case aft mount flange, due to cracking.

### **Actions Since AD 2005-23-09 Was Issued**

Since the FAA issued AD 2005-23-09, GE performed an updated lifing analysis on the HPC case. As a result, GE revised the inspection interval of the existing location

for the FPI and found additional locations on the HPC case that require inspection. GE also found an additional HPC case, P/N 1509M97G05, that requires this inspection.

### **Related Service Information under 1 CFR part 51**

The FAA reviewed TASK 05-21-02-200-001, dated September 15, 2015, from the ALS of the GE CF6-80E1 Engine Manual GEK99376, Revision 48, dated September 15, 2019. The service information describes procedures for performing FPIs of the HPC case. 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.

### **FAA's Determination**

The FAA is proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

### **Proposed AD Requirements**

This proposed AD would retain certain requirements of AD 2005-23-09. This proposed AD would require an update of the ALS of GE Engine Manual GEK99376 and the operator's existing CAMP.

### **Costs of Compliance**

The FAA estimates that this proposed AD affects 20 engines installed on airplanes of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

### Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Update ALS of engine manual	2 work-hours X \$85 per hour = \$170	\$0	\$170	\$3,400

#### 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.

The FAA is 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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to engines, propellers, and associated appliances to the Manager, Engine and Propeller Standards Branch, Policy and Innovation Division.

## **Regulatory Findings**

The FAA has determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD 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.

For the reasons discussed above, I certify that the proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, 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.

## **List of Subjects in 14 CFR Part 39**

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

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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 removing Airworthiness Directive (AD) 2005-23-09, Amendment 39-14367 (70 FR 67901, November 9, 2005), and adding the following new AD:

**General Electric Company:** Docket No. FAA-2019-0800; Product Identifier 2005-NE-24-AD.

**(a) Comments Due Date**

The FAA must receive comments on this AD action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

This AD replaces AD 2005-23-09, Amendment 39-14367 (70 FR 67901, November 9, 2005).

**(c) Applicability**

This AD applies to General Electric Company (GE) CF6-80E1A1, -80E1A2, -80E1A3, -80E1A4, and -80E1A4/B model turbofan engines.

**(d) Subject**

Joint Aircraft System Component (JASC) Code 7230, Turbine Engine Compressor Section.

**(e) Unsafe Condition**

This AD was prompted by GE performing an updated lifing analysis on the high-pressure compressor (HPC) case. Based on this analysis, GE found new locations on the case that require fluorescent penetrant inspection (FPI), identified a new inspection interval for the existing FPI location, and added another part-numbered HPC case that requires inspection. The FAA is issuing this AD to prevent failure of the HPC case. The unsafe condition, if not addressed, could result in uncontained release of the HPC case, engine fire, and damage to the airplane.

**(f) Compliance**

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

**(g) Required Actions**

Within 180 days after the effective date of this AD, replace TASK 05-21-02-200-001 in GE CF6-80E1 Engine Manual GEK99376 and the operator's existing continuous airworthiness maintenance program with TASK 05-21-02-200-001, dated September 15,

2015, from the Airworthiness Limitations Section of GE CF6-80E1 Engine Manual GEK99376, Revision 48, dated September 15, 2019.

**(h) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, ECO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (i)(1) of this AD. You may email your request to: ANE-AD-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(i) Related Information**

(1) For more information about this AD, contact Scott Stevenson, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA, 01803; phone: 781-238-7132; fax: 781-238-7199; email: scott.m.stevenson@faa.gov.

(2) For service information identified in this AD, contact General Electric Company, GE Aviation, Room 285, 1 Neumann Way, Cincinnati, OH, 45215; phone: 513-552-3272; email: aviation.fleetsupport@ge.com. You may view this referenced service information at the FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA, 01803. For information on the availability of this material at the FAA, call 781-238-7759.

Issued in Burlington, Massachusetts, on January 2, 2020.

Robert J. Ganley,  
Manager, Engine & Propeller Standards Branch,  
Aircraft Certification Service.

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