



## 適航指令發布單

### Airworthiness Directive Issuance Form

民航局 AD 編號 AD number	CAA-2020-07-003	發布日期 Date issued	2020/7/10
適用之航空產品 Applied to (models, serial numbers or part numbers, as applicable)	General Electric Company CF6-80E1A1, -80E1A2, -80E1A3, -80E1A4, and -80E1A4/B model turbofan engines.		
主旨摘要	This AD requires an update of the Airworthiness Limitations Section of GE Engine Manual GEK99376 and the operator's existing continuous airworthiness maintenance program.		
民航局 CAA <input type="checkbox"/> 本國產品 Native products <input type="checkbox"/> 其他個案 Other	設計國民航主管機構 Original Authorities <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input checked="" type="checkbox"/> FAA  <input type="checkbox"/> EASA  <input type="checkbox"/> Brazil  <input type="checkbox"/> Transport Canada Civil Aviation  <input type="checkbox"/> DGAC             </div> <div style="width: 50%;"> <input type="checkbox"/> Germany LBA  <input type="checkbox"/> CAA-NL  <input type="checkbox"/> UK CAA  <input type="checkbox"/> Japan CAB  <input type="checkbox"/> CAA of Israel  <input type="checkbox"/> Other _____             </div> </div>		
	設計國 AD 編號 Original AD number	2020-13-08	
	1. 直接採用原 AD 之內容?(Is the original AD directly adopted?) <input checked="" type="checkbox"/> 是(Yes) <input type="checkbox"/> 否(No) _ a. 生效日期另訂為(Re-specify the effective date as) : _____ b. 執行時限另訂為(Re-specify the compliance time or period as) : _____ 2. 使用人是否需要將 AD 執行結果向民航局提出報告?(Do Users need to report the status of compliance to the CAA?) <input type="checkbox"/> 是(Yes) <input checked="" type="checkbox"/> 否(No)		
備註 Note	This AD replaces AD 2005-23-09(CAA2005-11-003)		
註： 1. AD 內容後附。 2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。 3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail： <a href="mailto:adcaa@mail.caa.gov.tw">adcaa@mail.caa.gov.tw</a> Note： 1. The AD text is enclosed. 2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval. 3. For further information, please contact Civil Aeronautics Administration on Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail： <a href="mailto:adcaa@mail.caa.gov.tw">adcaa@mail.caa.gov.tw</a>			

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[Rules and Regulations]

[Pages 40586-40588]

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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2019-0800; Project Identifier 2005-NE-24-AD; Amendment 39-21153; AD 2020-13-08]**

**RIN 2120-AA64**

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

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

**ACTION:** Final rule.

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**SUMMARY:** The FAA is superseding Airworthiness Directive (AD) 2005-23-09 for all General Electric Company (GE) CF6-80E1A1, -80E1A2, -80E1A3, -80E1A4, and -80E1A4/B model turbofan engines. AD 2005-23-09 required 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. This AD requires an update of the Airworthiness Limitations Section (ALS) of GE Engine Manual GEK99376 and the operator's existing continuous airworthiness maintenance program (CAMP). This AD was prompted by 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. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective August 11, 2020.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of August 11, 2020.

**ADDRESSES:** For service information identified in this final rule, 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 service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA, 01803. For information on the availability of this material at the FAA, call 781-238-7759. It is also available on the internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0800.

## **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 final rule, the regulatory evaluation, any comments received, and other information. The address for Docket Operations is 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:** 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.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2005-23-09, Amendment 39-14367 (70 FR 67901, November 9, 2005), (“AD 2005-23-09”). AD 2005-23-09 applied to all GE CF6-80E1A1, -80E1A2, -80E1A3, -80E1A4, and -80E1A4/B model turbofan engines. The NPRM published in the Federal Register on January 21, 2020 (85 FR 3284). The NPRM was prompted by GE performing 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. The NPRM proposed to require an update of the ALS of GE Engine Manual GEK99376 and the operator's existing CAMP. The FAA is issuing this AD to address the unsafe condition on these products.

### **Comments**

The FAA gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA's response to each comment.

### **Request for Clarification on Task Referenced in AD**

EASA and Delta Airlines (Delta) requested clarification on whether TASK 05-21-02-200-001, dated September 15, 2015, referenced in the AD and in the docket, should be from Revision 47 or from Revision 48 of GE CF6-80E1 Engine Manual GEK99376, dated September 15, 2019 (“GE Engine Manual”). Delta further questioned whether the task should have the same date as the GE Engine Manual.

The FAA agrees that TASK 05-21-02-200-001, dated September 15, 2015, in Revision 48 of the GE Engine Manual is referenced correctly in this AD. The FAA notes that the task has a different date than the GE Engine Manual and the task is dated correctly in the NPRM. This task from Revision 48 of the GE Engine Manual will be uploaded to the docket upon publication of the final rule.

### **Request To Include Reference to Later Revisions of Engine Manual**

Delta requested that the FAA include a reference to “and later approved revisions” when referencing the GE Engine Manual in paragraph (g) of this AD.

The FAA disagrees because later revisions of the GE Engine Manual cannot be referenced in an AD.

## Support for the AD

The Air Line Pilots Association, International, expressed support for the AD as written.

## Conclusion

The FAA reviewed the relevant data, considered 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

The FAA reviewed TASK 05-21-02-200-001, dated September 15, 2015, from ESM 05-21-02, Life Limits 001 High Pressure Compressor HPC–Scheduled Maintenance Checks, 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.

## Costs of Compliance

The FAA estimates that this AD affects 20 engines installed on airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated Costs				
Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Update ALS of Engine Manual	2 work-hours × \$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.

## Regulatory Findings

The FAA has 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) 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.

### **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:
  - a. Removing Airworthiness Directive (AD) 2005-23-09, Amendment 39-14367 (70 FR 67901, November 9, 2005); and
  - b. Adding the following new AD:



## **AIRWORTHINESS DIRECTIVE**

[www.faa.gov/aircraft/safety/alerts/](http://www.faa.gov/aircraft/safety/alerts/)  
[www.gpoaccess.gov/fr/advanced.html](http://www.gpoaccess.gov/fr/advanced.html)

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**2020-13-08 General Electric Company:** Amendment 39-21153; Docket No. FAA-2019-0800; Project Identifier 2005-NE-24-AD.

**(a) Effective Date**

This AD is effective August 11, 2020.

**(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 ESM 05-21-02, Life Limits 001 High Pressure Compressor HPC–Scheduled Maintenance Checks, of the 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) 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**

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.

## **(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) TASK 05-21-02-200-001, dated September 15, 2015, from ESM 05-21-02, Life Limits 001 High Pressure Compressor HPC–Scheduled Maintenance Checks, of the GE CF6-80E1 Engine Manual GEK99376, Revision 48, dated September 15, 2019.

(ii) [Reserved]

(3) For GE 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.

(4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call 781-238-7759.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fedreg.legal@nara.gov](mailto:fedreg.legal@nara.gov), or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on June 17, 2020.

Gaetano A. Sciortino,

Deputy Director for Strategic Initiatives, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2020-14458 Filed 7-6-20; 8:45 am]