

**Note 1:** This airworthiness directive (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:** Required as indicated, unless accomplished previously.

To prevent critical life-limited rotating engine part failure, which could result in an uncontained engine failure and damage to the airplane, accomplish the following:

(a) Within the next 30 days after the effective date of this AD, revise the Airworthiness Limitations Section (ALS) and Maintenance Scheduling Section (MSS) of the Instructions for Continued Airworthiness (ICA) in the Time Limits Manuals of the Engine Manuals, part number (P/N) E-V2500-11A and P/N E-V2500-31A, and for air carrier operations revise the approved continuous airworthiness maintenance program, by adding the following:

(1) For Engine Manual, P/N E-V2500-11A, Time Limits Manual, Chapter 5-10-00, Configuration -1, (Effectivity: V2500-A1); and

(2) For Engine Manual, P/N E-V2500-11A, Time Limits Manual, Chapter 5-10-00, Configuration -2, (Effectivity: V2500-A5), and;

(3) For Engine Manual, P/N E-V2500-31A, Time Limits Manual, Chapter 5-10-00, (Effectivity: V2500-D5):

(i) Add the following to paragraph 1, entitled "Airworthiness Limitations:" "Refer

to paragraph 2—Maintenance Scheduling for information that sets forth the operators maintenance requirements for the V2500 On-Condition engine."

(ii) Add the following to paragraph 2, entitled "Maintenance Scheduling:" "Whenever a Group A part identified in this paragraph (see 2.1 for definition of group A) satisfies both of the following conditions:

(A) The part is considered completely disassembled when accomplished in accordance with the disassembly instructions in the engine manufacturer's engine manual; and

(B) The part has accumulated more than 100 cycles in service since the last piece-part opportunity inspection, provided that the part was not damaged or related to the cause for its removal from the engine; then that part is considered to be at the piece-part level and it is mandatory to perform the inspections for that part as specified in the following:

Part nomenclature	Part No. (P/N)	Inspect per engine manual
Fan Disk .....	All .....	Chapter 72-31-12, Subtask 72-31-12-230-054"

(b) Except as provided in paragraph (c) of this AD, and notwithstanding contrary provisions in § 43.16 of the Federal Aviation Regulations (14 CFR 43.16), these mandatory inspections shall be performed only in accordance with the ALS and MSS in the applicable Engine Manual.

(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. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector (PMI), who may add comments and then send it to the Manager, Engine Certification Office.

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

(d) Special flight permits may be issued in accordance with §§ 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 accomplished.

(e) FAA-certificated air carriers that have an approved continuous airworthiness maintenance program in accordance with the record keeping requirement of § 121.369(c) of the Federal Aviation Regulations [14 CFR 121.369 (c)] of this chapter must maintain records of the mandatory inspections that result from revising the Time Limits section of the Instructions for Continued Airworthiness (ICA) and the air carrier's continuous airworthiness program. Alternately, certificated air carriers may establish an approved system of record retention that provides a method for preservation and retrieval of the maintenance records that include the inspections resulting from this AD, and include the policy and procedures for implementing this alternate

method in the air carrier's maintenance manual required by § 121.369(c) of the Federal Aviation Regulations [14 CFR 121.369(c)]; however, the alternate system must be accepted by the appropriate PMI and require the maintenance records be maintained either indefinitely or until the work is repeated. Records of the piece-part inspections are not required under § 121.380(a)(2)(vi) of the Federal Aviation Regulations [14 CFR 121.380(a)(2)(vi)]. All other Operators must maintain the records of mandatory inspections required by the applicable regulations governing their operations.

**Note 3:** The requirements of this AD have been met when the engine manual changes are made and air carriers have modified their continuous airworthiness maintenance plans to reflect the requirements in the engine manuals.

(f) This amendment becomes effective on May 13, 1999.

Issued in Burlington, Massachusetts, on April 2, 1999.

**Jay J. Pardee,**

*Manager, Engine and Propeller Directorate, Aircraft Certification Service.*

[FR Doc. 99-8861 Filed 4-12-99; 8:45 am]

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## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. 98-ANE-41-AD; Amendment 39-11124; AD 99-08-18]

**RIN 2120-AA64**

#### **Airworthiness Directives; General Electric Company CF6-6, CF6-45, and CF6-50 Series Turbofan Engines**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment adopts a new airworthiness directive (AD), that requires revisions to the Time Limits Section of the manufacturer's Instructions for Continued Airworthiness (ICA) for General Electric Company (GE) CF6-6, CF6-45, and CF6-50 series turbofan engines to include required enhanced inspection of selected critical life-limited parts at each piece-part exposure. This amendment also requires an air carrier's approved continuous airworthiness maintenance program to incorporate these inspection procedures. This amendment is prompted by a Federal Aviation Administration (FAA) study of in-service events involving uncontained failures of critical rotating engine parts which indicated the need for improved inspections. The improved inspections are needed to identify those critical rotating parts with conditions, that if allowed to continue in service, could

result in uncontained failures. The actions specified by this proposed AD are intended to prevent critical life-limited rotating engine part failure, which could result in an uncontained engine failure and damage to the airplane.

**DATES:** Effective May 13, 1999.

**ADDRESSES:** The information referenced in this AD may be examined at the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

**FOR FURTHER INFORMATION CONTACT:** Karen Curtis, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7192, fax (781) 238-7199.

**SUPPLEMENTARY INFORMATION:** A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to GE CF6-6, CF6-45, and CF6-50 series turbofan engines was published in the **Federal Register** on July 28, 1998 (63 FR 40213). That action proposed to require revisions to the Time Limits Section of the manufacturer's ICA for GE CF6-6, CF6-45, and CF6-50 series turbofan engines to include required enhanced inspection of selected critical life-limited parts at each piece-part exposure. That action also proposed to require an air carrier's approved continuous airworthiness maintenance program to incorporate these inspection procedures.

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

Five commenters note that some of the tasks/sub-tasks referenced in the proposed rule call out inspections beyond those identified as part of the enhanced inspection initiative (i.e. visual and dimensional inspection in addition to the intended inspections). The commenters recommend that the final rule be revised to reflect only those tasks or sub-tasks that contain the inspections that are intended to be mandated by the AD. The FAA concurs. The requested change is consistent with the enhanced inspection initiative. The manual temporary revisions have been revised to reflect only those tasks or sub-tasks where the inspections to be mandated are located and the AD will reflect these changes.

One commenter notes that the work hours stated in the preamble for the HPTR stage 1 and 2 disk inspections are less than their estimates and

recommends that the final rule be revised to note 18 hours for the mandated inspections instead of 8 hours. The FAA does not agree. The work hour estimate that includes 3 hours for eddy current inspection and 5 hours for FPI for each HPTR disk, for a total of 16 hours for the 2 HPTR disks, is believed to be accurate for a disk of average cleanliness, being inspected under typical shop conditions.

No other comments were received on the economic analysis contained in the proposed rule. Based on that analysis, the FAA has determined that the annual per engine cost of \$438 does not create a significant economic impact on small entities.

Several commenters ask that the FAA clarify the record keeping aspects of the mandatory inspections resulting from the required changes to the Original Equipment Manufacturer's manual and operator's continuous airworthiness maintenance program. One commenter believes that paragraph (e) of the proposed AD is unclear and suggests that it be revised by eliminating the word "or" from the first sentence and beginning a second sentence with "In lieu of the record. \* \* \*" Two commenters state that the AD should be revised to clearly specify which types of maintenance records must be retained (i.e., inspection results, defect reporting requirements, date of performed maintenance, signature of the person performing the maintenance). These commenters believe that these revisions are necessary in order to avoid potential differences in interpretation between the air carriers and the FAA. And, one commenter states that the AD should clarify that there is no need for a special form to comply with the AD record keeping requirements. The FAA concurs in part. Generally, record keeping requirements are addressed in other regulations and this AD does not change those requirements. In order to allow flexibility from operator to operator, the FAA does not agree that the AD itself specify the precise nature of the records that will result from the required changes to the manufacturer's manual and operator's maintenance program. The FAA has, however, revised Paragraph (e) of this AD to clarify record keeping aspects of the new mandatory inspections.

One commenter requested that the FAA link the conduct of mandatory inspections with the subject part's removal from an engine either on-wing or removed and in an overhaul shop. The FAA does not concur. Mandatory inspections are based on a single trigger, which is a part being completely disassembled using the engine shop

manual instructions (piece-part opportunity), and are not dependent on an engine's state of installation. This AD mandates that the definition of piece-part opportunity appear in the mandatory section of each affected engine shop manual. This AD further mandates that an operator's continuous airworthiness maintenance program be modified to capture those engine shop manual changes.

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 previously described.

The regulations adopted herein will not have substantial direct effects 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. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

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 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 from 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.

**§ 39.13 [Amended]**

2. Section 39.13 is amended by adding the following new airworthiness directive:

**99-08-18 General Electric Company:**

Amendment 39-11124. Docket 98-ANE-41-AD.

*Applicability:* General Electric Company (GE) CF6-6, CF6-45, and CF6-50 series turbofan engines, installed on but not limited to Airbus A300 series, Boeing 747 series, and McDonnell Douglas DC-10 series airplanes.

**Note 1:** This airworthiness directive (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:* Required as indicated, unless accomplished previously.

To prevent critical life-limited rotating engine part failure, which could result in an uncontained engine failure and damage to the airplane, accomplish the following:

(a) Within the next 30 days after the effective date of this AD, revise the manufacturer's Time Limits Section of the Instructions for Continued Airworthiness (ICA), and for air carrier operations revise the approved continuous airworthiness maintenance program, by adding the following:

**"MANDATORY INSPECTIONS**

(1) Perform inspections of the following parts at each piece-part opportunity in accordance with the instructions provided in the applicable manual provisions:

Part nomenclature	Part No. (P/N)	Inspect per engine shop manual chapter
For CF6-6 Engines:		
Fan Rotor Disk, Stage 1 .....	All .....	72-21-03 Paragraph 2.F. or Paragraph 2.A.B. Fluorescent-Penetrant Inspect, and 72-21-03 Paragraph 3 or 3.A. Eddy Current Inspection.
High Pressure Turbine Rotor, Stage 1 Disk.	All .....	72-53-03 Paragraph 1. Fluorescent-Penetrant Inspect, and 72-53-03 Paragraph 4. Eddy Current Inspection of the HPTR Disk Rim Boltholes.
High Pressure Turbine Rotor, Stage 2 Disk.	All .....	72-53-04 Paragraph 1. Fluorescent-Penetrant Inspect, and Paragraph 4. Eddy Current Inspection of the Stage 2 HPTR Disk Rim Boltholes and 72-53-04 Paragraph 5. Eddy Current Inspection of the Stage 2 Disk Inner Boltholes.
For CF6-45, CF6-50 Engines:		
Fan Rotor Disk, Stage 1 .....	All .....	Task 72-21-03-230-051 Fluorescent-Penetrant Inspection, and Task 72-21-03-250-002 Manual Eddy Current Inspection or 72-21-03-250-003-053 Automated Eddy Current Inspection.
High Pressure Turbine Rotor, Stage 1 Disk.	All .....	Task 72-53-03-230-001-059 Fluorescent-Penetrant Inspect Disk, and Task 72-53-03-250-052 Eddy Current Inspection of the HPTR Stage 1 Rim Boltholes.
High Pressure Turbine Rotor, Stage 2 Disk.	All .....	Task 72-53-04-230-001-057 Fluorescent-Penetrant Inspect Disk, and Task 72-53-04-250-053 Eddy Current Inspection of the HPTR Stage 2 Rim and/or Inner Boltholes.

(2) For the purposes of these mandatory inspections, piece-part opportunity means:

(i) The part is considered completely disassembled when accomplished in accordance with the disassembly instructions in the engine manufacturer's Engine Shop Manual; and

(ii) The part has accumulated more than 100 cycles in service since the last piece-part opportunity inspection, provided that the part was not damaged or related to the cause for its removal from the engine.

(b) Except as provided in paragraph (c) of this AD, and notwithstanding contrary provisions in § 43.16 of the Federal Aviation Regulations (14 CFR 43.16), these mandatory inspections shall be performed only in accordance with the Time Limits Section of the manufacturer's ICA.

(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. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector (PMI), who may add comments and then send it to the Manager, Engine Certification Office.

**Note 2:** Information concerning the existence of approved alternative methods of

compliance with this airworthiness directive, if any, may be obtained from the Engine Certification Office.

(d) Special flight permits may be issued in accordance with §§ 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 accomplished.

(e) FAA-certificated air carriers that have an approved continuous airworthiness maintenance program in accordance with the record keeping requirement of § 121.369(c) of the Federal Aviation Regulations [14 CFR 121.369(c)] of this chapter must maintain records of the mandatory inspections that result from revising the Time Limits section of the ICA and the air carrier's continuous airworthiness program. Alternately, certificated air carriers may establish an alternate system of record retention that provides a method for preservation and retrieval of the maintenance records that include the inspections resulting from this AD, and include the policy and procedures for implementing this alternate method in the air carrier's maintenance manual required by § 121.369(c) of the Federal Aviation Regulations [14 CFR 121.369(c)]; however, the alternate system must be accepted by the

appropriate PMI and require the maintenance records be maintained either indefinitely or until the work is repeated. Records of the piece-part inspections are not required under § 121.380(a)(2)(vi) of the Federal Aviation Regulations [14 CFR 121.380(a)(2)(vi)]. All other Operators must maintain the records of mandatory inspections required by the applicable regulations governing their operations.

**Note 3:** The requirements of this AD have been met when the engine shop manual changes are made and air carriers have modified their continuous airworthiness maintenance plans to reflect the requirements in the engine shop manuals.

(f) This amendment becomes effective on May 13, 1999.

Issued in Burlington, Massachusetts, on April 2, 1999.

**Jay J. Pardee,**

*Manager, Engine and Propeller Directorate, Aircraft Certification Service.*

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