

**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:

**99-08-14 Pratt & Whitney:** Amendment 39-11120. Docket 98-ANE-61-AD.

**Applicability:** Pratt & Whitney (PW) PW2037, PW2040, PW2037M, PW2240, PW2337, PW2043, PW2643, and PW2143, series turbofan engines, installed on but not limited to Boeing 757 series and Ilyushin IL-96T 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 (TLS) of the manufacturer's engine manual, Part Numbers (P/N's) 1A6231 and 1B2412, as appropriate for the PW PW2037, PW2040, PW2037M, PW2240, PW2337, PW2043, PW2643, and PW2143 series turbofan engines, and for air carriers 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 PW2000 series Engine Manuals:

Part nomenclature	Part No. (P/N)	Manual section	Inspection
Hub, 1st Stg Comp .....	1A9001 (Assy P/N 1A9021) .....	72-31-04	Inspection-06.

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

(i) The part is considered completely disassembled when done in accordance with the disassembly instructions in the manufacturer's engine manual to either part number level listed in the table above, 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 Federal Aviation Regulations (14 CFR 43.16), these enhanced inspections shall be performed only in accordance with the TLS of the appropriate PW2000 series engine manuals.

(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 aircraft 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 Continuous 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. 99-8864 Filed 4-12-99; 8:45 am]

**BILLING CODE 4910-13-P**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

[Docket No. 98-ANE-49-AD; Amendment 39-11119; AD 99-08-13]

**RIN 2120-AA64**

**Airworthiness Directives; General Electric Company CF6-80A, CF6-80C2, and CF6-80E1 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 Life Limits Section of the manufacturer's Instructions for Continued Airworthiness (ICA) for General Electric Company (GE) CF6-80A, CF6-80C2 and CF6-80E1 series turbofan engines to

include required enhanced inspection of selected critical life-limited parts at each piece-part exposure. This AD also requires that an air carrier's approved continuous airworthiness maintenance program 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 that indicated the need for improved inspections. The improved inspections are needed to identify those critical rotating parts with conditions, which if allowed to continue in service, could result in uncontained failures. The actions specified by this 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 contained in this AD may be examined at the 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 CF6-80A, CF6-80C2 and CF6-80E1 series turbofan engines was published in the **Federal Register** on July 28, 1998 (63 FR 40223). That action proposed to require within the next 30 days after the effective date of this AD, revisions to the Life Limits section of the Engine Manuals, and, for air carriers, their approved continuous airworthiness maintenance program. The manufacturer of CF6-80A, CF6-80C, and CF6-80E1 series turbofan engines, has provided the FAA with a detailed proposal that identifies and prioritizes the critical life-limited rotating engine parts with the highest potential to hazard the airplane in the event of failure, along with instructions for enhanced, focused inspection methods. These enhanced inspections will be conducted at piece-part opportunity, as defined in this AD, rather than at specific inspection intervals.

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

Four commenters note that some of the tasks and subtasks that are referenced in the Notice for Proposed Rule Making (NPRM) require visual and dimensional inspections in addition to the nondestructive inspections identified as part of the enhanced inspection initiative. The commenters recommend that the final rule be revised to reflect only those tasks or subtasks that are intended to be mandated by the AD. The FAA concurs. The requested changes are consistent with the enhanced inspection initiative. The compliance section of this final rule has been changed to reference only the tasks and subtasks of the mandated inspections.

One commenter notes that the chapter referenced for the CF6-80A high pressure turbine (HPT) stage 1 disk inspection in the table in paragraph (a) of the NPRM is in error. The commenter recommends changing the final rule to reference the correct chapter (72-53-02 instead of 72-53-03). The FAA concurs. The chapter reference for the CF6-80A HPT stage 1 disk in the table in paragraph (a) of the compliance section of this AD has been changed to reference chapter 72-53-02.

One commenter notes that the work hours that are stated in the preamble for the HPT rotor stage 1 and stage 2 disk inspections are less than the commenter's estimate. The commenter recommends that the final rule be revised to note 18 hours instead of 8 hours for the mandated inspections. The FAA does not concur. The FAA has reviewed the work hour estimate that includes 3 hours for eddy current inspection and 5 hours for fluorescent-penetrant inspection (FPI) for each HPT rotor disk for a total of 16 hours for the two HPT rotor disks. The FAA believes that 8 hours is a conservative estimate for a part of average cleanliness that's being inspected under typical shop conditions.

No other comments were received on the economic analysis contained in the NPRM. Based on that analysis, the FAA has determined that the annual per engine cost of \$308 does not create a significant economic impact on small entities.

One commenter requests that the FAA link the conduct of mandatory inspections on whether the subject part was removed from an engine while the engine was installed on the airplane or while the engine was removed and in an overhaul shop. The commenter wishes to exempt those parts that are removed from installed engines from the focused inspections. The FAA does not concur. The mandatory inspections are based on a single trigger. The trigger is a part

being completely disassembled using the engine manual instructions (piece-part opportunity), and is not dependent on whether an engine is installed on the airplane. This final rule mandates that the definition of piece-part opportunity appears in the mandatory section of each affected engine manual. This final rule further mandates that an operator's continuous airworthiness maintenance program be modified to capture those engine manual changes.

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.

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 described previously. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

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:

**99-08-13 General Electric Company:**  
Amendment 39-11119. Docket 98-ANE-49-AD.

**Applicability:** General Electric Company CF6-80A, CF6-80C2 and CF6-80E1 series turbofan engines, installed on but not limited to Airbus A300, A310, and A330 series, Boeing 747 and 767 series, and McDonnell Douglas MD-11 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 Life 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 number (P/N)	Inspect per engine manual chapter
For CF6-80A Engines:		
Fan Rotor Disk Stage 1 .....	All .....	72-21-03, paragraph 3, Fluorescent-Penetrant Inspect; and 72-21-03, paragraph 4, Eddy Current Inspect.
High Pressure Turbine Rotor Stage 1 Disk/Shaft.	All .....	72-53-02, paragraph 3, Fluorescent-Penetrant Inspect Disk/Shaft per 70-32-02; and 72-53-02, paragraph 6, Eddy Current Inspection.
High Pressure Turbine Rotor Stage 2 Disk.	All .....	72-53-06, paragraph 3, Fluorescent-Penetrant Inspection; and 72-53-06, paragraph 6, Eddy Current Inspection of Rim Boltholes for Cracks.
For CF6-80C2 Engines:		
Fan Rotor Disk Stage 1 .....	All .....	Task 72-21-03-200-000-004, Fluorescent-Penetrant Inspection; and Task 72-21-03-200-000-008, Eddy Current Inspect Fan Rotor Disk Stage 1 Bore, Forward and Aft Hub Faces, and Bore Radii.
High Pressure Turbine (HPT) Rotor Stage 1 Disk/Shaft.	All .....	Task 72-53-02-200-000-001, Fluorescent-Penetrant Inspect the HPT Rotor Stage 1 Disk/Shaft; and Task 72-53-02-200-000-005, Eddy Current Inspection.
High Pressure Turbine (HPT) Rotor Stage 2 Disk.	All .....	Task 72-53-06-200-000-002, Fluorescent-Penetrant Inspect the Stage 2 Disk; and Task 72-53-06-200-000-006, Eddy Current Inspection of the HPTR Stage 2 Rim Boltholes.
For CF6-80E1 Engines:		
Stage 1 Disk, Fan Rotor .....	All .....	Task 72-21-03-230-051, Fluorescent-Penetrant Inspection; and Task 72-21-03-250-051 or 72-21-03-250-052, Eddy Current Inspection.
High Pressure Turbine (HPT) Rotor Stage 1 Disk/Shaft.	All .....	Task 72-53-02-230-051, Fluorescent-Penetrant Inspection; and Task 72-53-02-200-001-005, Eddy Current Inspection.
High Pressure Turbine (HPT) Rotor Stage 2 Disk.	All .....	Task 72-53-06-230-051, Fluorescent-Penetrant Inspection; and Task 72-53-06-200-001-006, Eddy Current Inspection of the HPTR Stage 2 Rim Boltholes.

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

(i) The part is considered completely disassembled when done in accordance with the disassembly instructions in the manufacturer's engine 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 Life 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 aircraft 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 recordkeeping 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 Life Limits section of the 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 operators 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. 99-8863 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-47-AD; Amendment 39-11118; AD 99-08-12]

RIN 2120-AA64

#### Airworthiness Directives; Pratt & Whitney JT9D 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 Engine Time

Limits section in the Engine Manual (EM) for Pratt & Whitney (PW) JT9D series turbofan engines to include required enhanced inspection of selected critical life-limited parts at each piece-part exposure. This amendment will also require 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:** Tara Goodman, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7130, 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 Pratt & Whitney JT9D series turbofan engines was published in the **Federal Register** on July 28, 1998 (63 FR 40220). That action proposed to require revisions to the Engine Time Limits section in the Engine Manual (EM) for Pratt & Whitney JT9D 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.

One commenter notes that the JT9D manual used by the operator [part number (P/N) 770407] to maintain

JT9D-7A and -7J engines is not included in paragraph (a), which lists the JT9D manuals which require revisions to the Engine Time Limits Section by P/N. The FAA concurs. Several engine manuals applicable to certain JT9D-7 models are customized for operators. Part numbers for these engine manuals were inadvertently omitted from the proposed rule. Corrections for the engine manual referenced by the commentor and for other engine manuals have been included in this AD.

Several commenters suggested that the tables used to specify those parts requiring mandatory inspections be given standardized formats and that the parts be identified by "all" rather than by specific part number. The FAA does not concur. FAA intentionally allowed each manufacturer to choose a format that fits their products manual. Identification of parts requiring mandatory inspections has been accomplished by either part number identification or use of the word "all". Part number identification was chosen by some manufacturers since the processes and procedures needed to conduct new inspections were not yet developed for all parts of a certain type, i.e., fan disks/hubs. FAA wants the manufacturers to have flexibility in managing how their manuals are structured within Air Transport Association code requirement and does not consider mandating matters of format appropriate.

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 NPRM 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