

Nomenclature (description)	Part No.	CIR manual section	CIR manual inspection	CIR manual
HPT 2nd stage airseal	50L926 (50L925 Detail)*; 50L976 (50L925 Detail)*; 50L960 (50L961 Detail)*; 50L993 (50L994 Detail)*.	72-52-22	Insp/Check-02 ..	51A750
HPT second stage hub	50L602-021 (50L602 Detail); 50L602-022 (50L602 Detail); 50L602-023 (50L602 Detail); 50L602-024 (50L602 Detail); 50L602-001; 50L902-021 (50L902 Detail); 50L902-022 (50L902 Detail); 52L002-021 (52L002 Detail); 52L402 (52L002 Detail); 52L802 (52L002 Detail); 53L602 (52L002 Detail); 52L702 (52L102 Detail); 53L232 (53L202 Detail); 53L332 (53L402 Detail); 53L042 (53L702 Detail).	72-52-06	Insp/Check-02 ..	51A357
		72-52-06	Insp/Check-02 ..	51A750

* These parts must be inspected at the Detail level (metering plugs and Dampers must be removed). Assembly P/N is listed only for reference and consistency with PW Manuals.

Except as noted, all parts may be inspected at any part number level of disassembly listed in the Table above.

(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 manufacturer's engine manuals to either the detail or assembly level part numbers listed in the Table above (except as noted); 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 section 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 EMs.

Alternative Method of Compliance

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

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

Ferry Flights

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

Continuous Airworthiness Maintenance Program

(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 EMs 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 EMs.

Issued in Burlington, Massachusetts, on September 30, 1999.

David A. Downey,

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

[FR Doc. 99-26136 Filed 10-6-99; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 99-NE-49-AD]

RIN 2120-AA64

Airworthiness Directives; General Electric Company CF34 Series Turbofan Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This proposal would require revisions to the Time Limits Section

(TLS) of the General Electric Company CF34 Series Turbofan Engine Manual to include required enhanced inspection of selected critical life-limited parts at each piece-part exposure. This action would add additional critical life-limited parts at each piece-part exposure. This proposal would also require an air carrier's approved continuous airworthiness maintenance program to incorporate these inspection procedures. Air carriers with an approved continuous airworthiness maintenance program would be allowed to either maintain the records showing the current status of the inspections using the record keeping system specified in the air carrier's maintenance manual, or establish an acceptable alternate method of record keeping. This proposal 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 proposed airworthiness directive (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: Comments must be received by December 6, 1999.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 99-NE-49-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may also be sent via the Internet using the following address: "9-ane-adcomment@faa.gov". Comments sent via the Internet must contain the docket number in the subject line. Comments may be inspected at this location

between 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT:

Kevin Donovan, Aerospace Engineer Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7743, fax (238) 238-7199.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 99-NE-49-AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 99-NE-49-AD, 12 New England Executive Park, Burlington, MA 01803-5299.

Discussion

A recent Federal Aviation Administration (FAA) study analyzing 15 years of accident data for transport category airplanes identified several failure mode root causes that can result in serious safety hazards to transport category airplanes. This study identified uncontained failure of critical life-limited rotating engine parts as the leading engine-related safety hazard to

airplanes. Uncontained engine failures have resulted from undetected cracks in rotating parts that initiated and propagated to failure. Cracks can originate from causes such as unintended excessive stress from the original design, or they may initiate from stresses induced from material flaws, handling damage, or damage from machining operations. The failure of rotating parts can present a significant safety hazard to the airplanes by release of high energy fragments that could injure passengers or crew by penetrating of the cabin, damaging flight control surfaces, severing flammable fluid lines, or otherwise compromising the airworthiness of the airplane.

Intervention Strategy

Accordingly, the FAA has developed an intervention strategy to significantly reduce uncontained engine failures. This intervention strategy was developed after consultation with industry and will be used as a model for future initiatives. This intervention strategy is to conduct enhanced, nondestructive inspections of fan disks, certain high pressure turbine (HPT) rotor disks, and HPT rotor outer torque couplings, which could most likely result in a safety hazard to the airplane in the event of a fracture.

Future Rulemaking

The FAA is also considering the need for additional rule making. Future airworthiness directives (ADs) may be issued introducing additional intervention strategies to further reduce or eliminate uncontained engine failures.

Safety Critical Parts and Inspection Methods

Properly focused enhanced inspections require identification of the parts whose failure presents the highest safety hazard to the airplane, identifying the most critical features to inspect on these parts, and utilizing inspection procedures and techniques that improve crack detection. The FAA, with close cooperation of the engine manufacturers, has completed a detailed analysis that identifies the most safety significant parts and features, and the most appropriate inspection methods.

Critical life-limited high-energy rotating parts are currently subject to some form of recommended crack inspection when exposed during engine maintenance or disassembly. As a result of this AD, the inspections currently recommended by the manufacturer will become mandatory for those parts listed in the compliance section. Furthermore, the FAA intends that additional

mandatory enhanced inspections resulting from this AD serve as an adjunct to the existing inspections. The FAA has determined that the enhanced inspections will significantly improve the probability of crack detection while the parts are disassembled during maintenance. All mandatory inspections must be conducted in accordance with detailed inspection procedures prescribed in the manufacturer's Turbofan Engine Manual.

Part 121 Operators

Additionally, this AD allows for air carriers operating under the provisions of 14 CFR part 121 with an FAA-approved continuous airworthiness maintenance program, and entities with whom those air carriers make arrangements to perform this maintenance, to verify performance of the enhanced inspections by retaining the maintenance records that include the inspections resulting from this AD, provided that the records include the date and signature of the person performing the maintenance action. These records must be retained with the maintenance records of the part, engine module, or engine until the task is repeated. This will establish a method of record preservation and retrieval typical to those in existing continuous airworthiness maintenance programs. Instructions must be included in an air carrier's maintenance manual providing procedures on how this record preservation and retrieval system will be implemented and integrated into the air carrier's record keeping system.

Proposed Actions

This proposal would require, within the next 30 days after the effective date of this AD, revisions to the Time Limits Section (TLS) in the General Electric Company (GE) CF34 Series Turbofan Engine Manual, and, for air carriers, the approved continuous airworthiness maintenance program. GE, the manufacturer of CF34-3A1 and CF34-3B1 series turbofan engines, used on 14 CFR part 25 airplanes, 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. The enhanced inspections resulting from this AD will be conducted at piece-part opportunity, as defined below in the compliance section, rather than specific time inspection intervals.

Economic Analysis

The FAA estimates that 352 engines installed on airplanes of US registry would be affected by this proposed AD, that it would take approximately 2 work hours per engine to accomplish the proposed actions. The average labor rate is \$60 per work hour. The total cost of the new inspections per engine would be approximately \$120 per year. Using average shop visit rates, 275 engines are expected to be affected per year. The annual cost impact of the proposed AD on US operators is therefore estimated to be \$33,000.

Regulatory Impact

The regulations proposed herein would 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 proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this proposed regulation (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); and (3) if promulgated, 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 copy of the draft regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting 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.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend 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:

General Electric Company: Docket 99-NE-49-AD.

Applicability: General Electric Company (GE) CF34-3A1 and -3B1 series turbofan engines, installed on but not limited to Bombardier Canadair CL601R (RJ) aircraft.

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:

Inspections

(a) Within the next 30 days after the effective date of this AD, revise the Time Limits Section (TLS), Chapter 5-21-00, of the GE CF34 Series Turbofan Engine Manual, SEI-756, and for air carrier operations revise the approved continuous airworthiness maintenance program, by adding the following:

"9. CF34-3A1 and CF34-3B1 Engine Maintenance Program—Shop Level Mandatory Inspection Requirements.

A. This procedure is used to identify specific piece-parts that require mandatory inspections that must be accomplished at each piece-part exposure using the applicable Chapters referenced in Table 804 for the inspection requirements.

B. Piece-part exposure is defined as follows:

(1) For engines that utilize the "On Condition" maintenance requirements: The part is considered completely disassembled when done in accordance with the disassembly instructions in the GAE engine authorized overhaul Engine Manual. 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.

(2) For engines that utilize the "Hard Time" maintenance requirements: The part is considered completely disassembled when done in accordance with the disassembly instructions used in the "Minor Maintenance" and "Overhaul" instructions in the GEAE engine authorized Engine Manual. 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.

C. Refer to Table 804 below for the mandatory inspection requirements.

TABLE 804.—MANDATORY INSPECTION REQUIREMENTS

Part Name/Part No. (P/N)	Manual chapter/section/subject	Mandatory inspection
Fan Disk (all)	72-21-00, Inspection	All areas (FPI). ¹ Bores (ECI). ²
Stage 1 high pressure turbine (HPT) Rotor Disk (P/N 6078T93 and all reworked P/N rotor disks).	72-46-00, Inspection	All areas (FPI). ¹ Bores (ECI). ² Boltholes (ECI). ² Air Holes (ECI). ²
Stage 1 HPT Rotor Disk, P/N 5079T52	72-46-00, Inspection	All areas (FPI). ¹ Bores (ECI). ² Boltholes (ECI). ² Air Holes (ECI). ²
Stage 2 HPT Rotor Disk (P/N 6078T94 and all reworked P/N rotor disks).	72-46-00, Inspection	All areas (FPI). ¹ Bores (ECI). ² Boltholes (ECI). ² Air Holes (ECI). ²
Stage 2 HPT Rotor Disk, P/N 5079T53	72-46-00, Inspection	All areas (FPI). ¹ Bores (ECI). ²

TABLE 804.—MANDATORY INSPECTION REQUIREMENTS—Continued

Part Name/Part No. (P/N)	Manual chapter/section/subject	Mandatory inspection
HPT Rotor Outer Torque Coupling (P/N 5041T67, PN 5079T64, and all reworked P/N couplings).	72-46-00, Inspection	All areas (FPI). ¹ Bore (ECI). ²

¹ FPI = Fluorescent Penetrant Inspection Method.
² ECI = Eddy Current Inspection".

(b) Except as provided in paragraph (c) of this AD, and notwithstanding contrary provisions in section 43.16 of the Federal Aviation Regulations (14 CFR 43.16), these mandatory inspections shall be performed only in accordance with the TLS, Chapter 5-21-00, of the General Electric Company, CF34 Series Turbofan Engine Manual, SEI-756.

(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 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 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 sections 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 TLS 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 GE CF34 Series Turbofan Engine Manual.

Issued in Burlington, Massachusetts, on September 30, 1999.

David A. Downey,
Assistant Manager, Engine and Propeller Directorate, Aircraft Certification Service.
 [FR Doc. 99-26208 Filed 10-6-99; 8:45 am]
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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 98-ANE-41-AD]

RIN 2120-AA64

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

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes the superseding of an existing airworthiness directive (AD), applicable to General Electric Company (GE) CF6-6, CF6-45, and CF6-50 series turbofan engines, that currently requires revisions to the Time Limits Section of the manufacturer's Instructions for Continued Airworthiness (ICA) to include required enhanced inspection of selected critical life-limited parts at each piece-part exposure. This action would add additional disk bore eddy current inspections (ECI) for the high pressure turbine rotor (HPTR) Stage 1 and 2 disks. This proposal is prompted by additional focused inspection procedures that have been developed by the manufacturer. 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: Comments must be received by December 6, 1999.

ADDRESSES: Submit comments to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 98-ANE-41-AD, 12 New

England Executive Park, Burlington, MA 01803-5299. Comments may also be sent via the Internet using the following address: "9-ane-adcomment@faa.gov". Comments sent via the Internet must contain the docket number in the subject line. Comments may be inspected at this location between 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

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:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 98-ANE-41-AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the