

# Proposed Rules

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This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. 2002-NE-24-AD]

RIN 2120-AA64

#### Airworthiness Directives; General Electric Company CF6-6 Series Turbofan Engines

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

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

**SUMMARY:** The Federal Aviation Administration (FAA) proposes to adopt a new airworthiness directive (AD) that is applicable to General Electric (GE) CF6-6 series turbofan engines. This proposal would require a reduction of the cyclic life limit for certain high pressure turbine rotor (HPTR) rear shafts, and would require removing certain HPTR rear shafts from service before exceeding the new, lower cyclic life limit. In addition, the proposal would require removing from service certain HPTR rear shafts that currently exceed, or will exceed, the new, lower cyclic life limit according to the compliance schedule described in this proposal. The actions specified by the proposed AD are intended to prevent cracks in HPTR rear shafts that could result in uncontained engine failure and damage to the airplane.

**DATES:** Comments must be received by March 10, 2003.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 2002-NE-24-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may be inspected at this location, by appointment, between 8 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays. 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.

#### 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, e-mail: *karen.curtis@faa.gov*.

#### 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 in triplicate 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 action 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 action must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2002-NE-24-AD." The postcard will be date stamped and returned to the commenter.

##### Availability of NPRM's

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. 2002-NE-24-AD, 12 New England Executive Park, Burlington, MA 01803-5299.

#### Discussion

An updated low-cycle fatigue (LCF) analysis of certain HPTR rear shaft part numbers installed in CF6-6 engines, including an improved 3D finite element analysis of certain features, was performed by the manufacturer. That analysis indicated the need to lower the cyclic life limit for these part numbers. The updated analysis was prompted by a recently completed analysis on the same rotor assembly, but with different blades.

This proposal will require a new life limit for these HPTR rear shaft P/N's of 8,950 cycles-since-new. On August 8, 2002, the manufacturer issued Temporary Revision TR 05-0022, revising the life limits section of the engine manual to reflect the new life limit for these shafts. Because the fleet contains rear shafts that exceed this new lower limit, a draw down plan is required. This condition, if not corrected could result in LCF cracking and failure of the shafts, which could result in uncontained engine failure and damage to the airplane.

#### FAA's Determination of an Unsafe Condition and Proposed Actions

Since an unsafe condition has been identified that is likely to exist or develop on other GE CF6-6 series turbofan engines of the same type design, the proposed AD would establish a new, lower cyclic life limit of 8,950 CSN for HPTR rear shafts P/N's 9137M13G01/G02/G03, 9138M22G01/G02/G09/G10, 9138M25G02, and 9687M22G04/G07/G10 and would require removing certain HPTR rear shafts from service before exceeding the new, lower cyclic life limit. In addition, the proposal would require removing from service certain HPTR rear shafts that currently exceed, or will exceed, the new, lower cycle life limit according to a compliance schedule based on accumulated cycles on the rear shaft on the effective date of this AD.

#### Economic Analysis

There are approximately 55 GE CF6-6 series turbofan engines of the affected design in the domestic fleet that would be affected by this proposed AD. There are no foreign registered engines. There are no labor or parts costs associated with the implementation of this proposed action. The total cost of the proposed AD to U.S. operators is

estimated to be \$41,690 per engine, which is the cost of new rear shafts.

**Regulatory Analysis**

This proposed rule does not have federalism implications, as defined in Executive Order 13132, because it 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. Accordingly, the FAA has not consulted with state authorities prior to publication of this proposed rule.

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 No. 2002-NE-24-AD.

**Applicability**

This airworthiness directive (AD) is applicable to General Electric Company CF6-

6 series turbofan engines. These engines are installed on, but not limited to McDonnell Douglas DC-10 series airplanes.

**Note 1:** This 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 (e) 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**

Compliance with this AD is required as indicated, unless already done.

To prevent cracks in high pressure turbine rotor (HPTR) rear shafts, which could result in uncontained engine failure and damage to the airplane, do the following:

- (a) Remove from service HPTR rear shafts, part numbers (P/N's) 9137M13G01/G02/G03, 9138M22G01/G02/G09/G10, 9138M25G02, and 9687M22G04/G07/G10 in accordance with Table 1 as follows:

**TABLE 1.—HPTR REAR SHAFT REMOVAL SCHEDULE**

If the rear shaft cycles-since-new (CSN) on the effective date of this AD are:	Then remove the rear shaft
(1) Fewer than 5,000 CSN .....	Before exceeding 8,950 CSN
(2) 5,000 CSN or more, but fewer than 8,950 CSN .....	Within 3,950 additional cycles-in-service (CIS) from the effective date of this AD or before 11,550 CSN, whichever occurs earlier.
(3) 8,950 CSN or more .....	At next HPTR rear shaft piece part exposure, or within 2,600 additional cycles-in-service (CIS), whichever occurs earlier.

(b) After the effective date of this AD, do not install any HPTR rear shaft, P/N 9137M13G01/G02/G03, 9138M22G01/G02/G09/G10, 9138M25G02, or 9687M22G04/G07/G10, that has 8,950 or more CSN into an engine.

(c) Except as provided in paragraph (a) of this AD, this action establishes a new, cyclic life limit of 8,950 CSN for HPTR rear shaft P/N's 9137M13G01/G02/G03, 9138M22G01/G02/G09/G10, 9138M25G02, and 9687M22G04/G07/G10 which is published in Chapter 05-11-03 of CF6-6 Engine Shop Manual, GEK 9266.

**Definition**

(d) For the purpose of this AD, HPTR rear shaft piece-part exposure is defined as complete disassembly of the rear shaft from the HPTR structure in accordance with the manufacturer's engine manual.

**Alternative Methods of Compliance**

(e) 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 (ECO). Operators must

submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, 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.

**Special Flight Permits**

(f) Special flight permits may be issued in accordance §§ 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 done.

Issued in Burlington, Massachusetts, on January 3, 2003.

**Jay J. Pardee,**

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

[FR Doc. 03-330 Filed 1-7-03; 8:45 am]

**BILLING CODE 4910-13-P**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

[Docket No. 2001-NM-231-AD]

**RIN 2120-AA64**

**Airworthiness Directives; Boeing Model 747-400 and -400F Series Airplanes**

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

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

**SUMMARY:** This document proposes the adoption of a new airworthiness directive (AD) that is applicable to certain Boeing Model 747-400 and -400F series airplanes. This proposal would require initial and, for certain airplanes, repetitive inspections of the