We are proposing this AD because we believe that the current mandatory inspections, as contained in existing AD 2007–05–17, do not provide the required level of assurance that the critical life-limited parts at each piece-part opportunity could be identified and corrected. This proposal would require revisions to the JT9D series engines ALS sections of the manufacturer’s manuals and an air carrier’s approved continuous airworthiness maintenance program to incorporate additional inspection requirements.

### Proposed AD Requirements

This proposed AD would retain all of the requirements of AD 2007–05–17 (72 FR 10350, March 8, 2007), and would supersede AD 2007–05–17 to require the following additional inspections:

- Adding ECIs for web cooling holes and tiered holes in HPT stage 2 disks installed in JT9D–58A and –70A engines;
- Adding ECIs for web cooling holes and tiered holes in HPT stage 2 disks installed in JT9D–7Q and –7Q3 engines;
- Adding ECIs for web cooling holes in HPT stage 2 disks, and for fan hub

### SUPPLEMENTARY INFORMATION: Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA–2007–27023; Directorate Identifier 98–ANE–47–AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to [http://www.regulations.gov](http://www.regulations.gov), including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### FAA’s Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

### Proposed AD Requirements

This proposed AD would retain all of the requirements of AD 2007–05–17 (72 FR 10350, March 8, 2007). This proposed AD would supersede AD 2007–05–17 to require the following additional inspections:

- Adding ECIs for web cooling holes and tiered holes in HPT stage 2 disks installed in JT9D–58A and –70A engines;
- Adding ECIs for web cooling holes and tiered holes in HPT stage 2 disks installed in JT9D–7Q and –7Q3 engines;
- Adding ECIs for web cooling holes in HPT stage 2 disks, and for fan hub
slots, installed in JT9D–7R4 engines; and
- Adding ECIs for web cooling holes and tierod holes in HPT stage 2 disks installed in JT9D–7R4D, –7R4D1, –7R4E, and –7R4E1 engines.

This proposed AD would also add the Engine Manual Inspection Task and Sub Task Number references for these inspections.

Identifying the Part Nomenclatures and Inspections Added

For reference, the part nomenclatures and inspections added to the table in the compliance section of this proposed AD are identified by two asterisks (**) that precede the part nomenclature.

Costs of Compliance

We estimate that 438 JT9D series engines are installed on airplanes of U.S. registry and would be affected by this proposed AD. We also estimate that about 4 work hours per engine are needed to perform the proposed actions, and that the average labor rate is $85 per work hour. Since this is an added inspection requirement that will be part of the normal maintenance cycle, no additional parts costs are involved. Based on these figures, we estimate the total cost of the proposed AD to U.S. operators to be $148,920.00.

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.

We are 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

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD 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.

For the reasons discussed above, I certify that the 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),
3. Will not affect intrastate aviation in Alaska, and
4. 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.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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 removing airworthiness directive (AD) 2007–05–17, Amendment 39–14978 (72 FR 10350, March 8, 2007), and adding the following new AD:


(a) Comments Due Date

The FAA must receive comments on this AD action by January 23, 2012.

(b) Affected ADs

This AD supersedes AD 2007–05–17, Amendment 39–14978 (72 FR 10350, March 8, 2007).

(c) Applicability


(d) Unsafe Condition

This AD results from the need to require enhanced inspection of selected critical life-limited parts of JT9D series turbofan engines. We are issuing this AD to prevent critical life-limited rotating engine part failure, which could result in an uncontained engine failure and damage to the airplane.

(e) Compliance

Comply with this AD within the compliance times specified, unless already done.

(f) Inspections

Within the next 30 days after the effective date of this AD, add the following section to the Airworthiness Limitations Section (ALS) of your copy of the manufacturer’s Instructions for Continued Airworthiness (ICA) and, for air carrier operations, to your continuous airworthiness air carrier maintenance program:

“MANDATORY INSPECTIONS”

(1) Inspect the following life-limited parts at each piece-part opportunity in accordance with the instructions provided in the applicable manual provisions:

<table>
<thead>
<tr>
<th>Engine model</th>
<th>Engine manual part No. (P/N)</th>
<th>Part nomenclature</th>
<th>Inspect per manual section</th>
<th>Inspection/check</th>
</tr>
</thead>
<tbody>
<tr>
<td>3A/7/7A/7AH/7F/7H/7J/20J</td>
<td>646028 (or the equivalent customized versions, 770407 and 770408).</td>
<td>All Fan Hubs</td>
<td>72–31–04</td>
<td>Inspection-02</td>
</tr>
<tr>
<td>3A/7/7A/7AH/7F/7H/7J/20J</td>
<td>646028 (or the equivalent customized versions, 770407 and 770408).</td>
<td>All HPC Stage 5–15 Disks and Rear Compressor Drive Turbine Shafts, All HPT Stage 1–2 Disks and Hubs</td>
<td>72–35–00</td>
<td>Inspection-03.</td>
</tr>
<tr>
<td>3A/7/7A/7AH/7F/7H/7J/20J</td>
<td>646028 (or the equivalent customized versions, 770407 and 770408).</td>
<td>**All HPT Stage 1 Disk Web Cooling Holes</td>
<td>72–51–00</td>
<td>Inspection-03.</td>
</tr>
<tr>
<td>3A/7/7A/7AH/7F/7H/7J/20J</td>
<td>646028 (or the equivalent customized versions, 770407 and 770408).</td>
<td>All HPT Stage 2 Disk Web Tierod Holes</td>
<td>72–51–02</td>
<td>Inspection-06.</td>
</tr>
<tr>
<td>3A/7/7A/7AH/7F/7H/7J/20J</td>
<td>646028 (or the equivalent customized versions, 770407 and 770408).</td>
<td>All LPT Stage 3–6 Disks and Hubs</td>
<td>72–52–00</td>
<td>Inspection-03.</td>
</tr>
<tr>
<td>59A/70A</td>
<td>754459</td>
<td>All Fan Hubs</td>
<td>72–31–00</td>
<td>Check-00.</td>
</tr>
<tr>
<td>59A/70A</td>
<td>754459</td>
<td>All HPC Stage 5–15 Disks and Rear Compressor Drive Turbine Shafts</td>
<td>72–35–00</td>
<td>Check-00.</td>
</tr>
<tr>
<td>59A/70A</td>
<td>754459</td>
<td>All HPT Stage 1–2 Disks and Hubs</td>
<td>72–51–00</td>
<td>Check-03.</td>
</tr>
</tbody>
</table>
(2) For the purposes of these mandatory inspections, piece-part opportunity means:
(i) The part is considered completely disassembled when disassembly is in accordance with the disassembly instructions in the 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.*

(g) Exempt as provided in paragraph (h) 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 ALS of the manufacturer’s ICA.

(h) Alternative Methods of Compliance (AMOC)

(1) You must perform these mandatory inspections using the ALS of the ICA and the applicable Engine Manual, unless you receive approval to use an AMOC under paragraph (h)(2) of this AD. Section 43.16 of the Federal Aviation Regulations (14 CFR 43.16) may not be used to approve alternative methods of compliance or adjustments to the times in which these inspections must be performed.

(2) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD, if requested using the procedures found in 14 CFR 39.19.

(b) Maintaining Records of the Mandatory Inspections

(1) You have met the requirements of this AD when you revise your copy of the ALS of the manufacturer’s ICA as specified in paragraph (f) of this AD. For air carriers operating under part 121 of the Federal Aviation Regulations (14 CFR part 121), you have met the requirements of this AD when you modify your continuous airworthiness air carrier maintenance program as specified in paragraph (f) of this AD. You do not need to record each piece-part inspection as compliance to this AD, but you must maintain records of those inspections according to the regulations governing your operation. For air carriers operating under part 121, you may use either the system established to comply with section 121.369 or an alternative accepted by your principal maintenance inspector if that alternative:

(i) Includes a method for preserving and retrieving the records of the inspections resulting from this AD;
(ii) Meets the requirements of section 121.369(c); and
(iii) Maintains the records either indefinitely or until the work is repeated.

(2) These record keeping requirements apply only to the records used to document the mandatory inspections required as a result of revising the ALS of the manufacturer’s ICA as specified in paragraph (f) of this AD. These record keeping requirements do not alter or amend the record keeping requirements for any other AD or regulatory requirement.

(i) Related Information

For more information about this AD, contact Stephen Sheely, Aerospace Engineer, Engine & Propeller Directorate, FAA, 12 New England Executive Park, Burlington, MA 01803; phone: (781) 238–7750; fax: (781) 238–7199; email: stephen.k.sheely@faa.gov.

* P/N 770407 and 770408 are customized versions of P/N 646028 engine manual.
** Two asterisks identify the part nomenclatures and inspections added to the table.