

[Federal Register Volume 77, Number 166 (Monday, August 27, 2012)]  
[Rules and Regulations]  
[Pages 51695-51697]  
From the Federal Register Online via the Government Printing Office [www.gpo.gov]  
[FR Doc No: 2012-21008]

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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2011-0945; Directorate Identifier 2011-NE-18-AD; Amendment 39-17161; AD 2012-16-14]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Honeywell International Inc. Turbofan Engines**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for all Honeywell International Inc. TFE731-20R, -20AR, -20BR, -40, -40AR, -40R, -50R, and -60 turbofan engines. This AD was prompted by a report of a quality escape of about 8,000 2nd stage low-pressure turbine (LPT2) rotor blades, manufactured by Honeywell Chihuahua Manufacturing Operation since 2009. This AD requires removing and inspecting certain LPT2 rotor blades. We are issuing this AD to correct an unsafe condition caused by these blades installed on these engines.

**DATES:** This AD is effective October 1, 2012.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of October 1, 2012.

**ADDRESSES:** For service information identified in this AD, contact Honeywell International Inc., 111 S. 34th Street, Phoenix, AZ 85034-2802; Web site: <http://portal.honeywell.com>; or call Honeywell toll free at phone: 800-601-3099 (U.S./Canada) or 602-365-3099 (International Direct).

You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803. For information on the availability of this material at the FAA, call 781-238-7125.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Document

Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Joseph Costa, Aerospace Engineer, Los Angeles Aircraft Certification Office, FAA, Transport Airplane Directorate, 3960 Paramount Blvd., Lakewood, CA 90712-4137; phone: 562-627-5246; fax: 562-627-5210; email: joseph.costa@faa.gov.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a Notice of Proposed Rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM published in the Federal Register on January 9, 2012 (77 FR 1043). That NPRM proposed to require removing and inspecting certain LPT2 rotor blades.

### **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM.

### **Conclusion**

We reviewed the relevant data and determined that air safety and the public interest require adopting the AD as proposed.

### **Costs of Compliance**

We estimate that this AD will affect 3,000 engines installed on airplanes of U.S. registry. We also estimate that it will take about 1 work-hour per engine to perform the record review, and that the average labor rate is \$85 per work-hour. For an estimated 500 engines with discrepant blades, blade rework cost was estimated at \$2,380 per engine with a replacement parts cost about \$1,100 per engine. Based on these figures, we estimate the total cost of the AD to U.S. operators to be \$1,430,100.

### **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**

This AD will not have federalism implications under Executive Order 13132. This AD will 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 this AD:

- (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),
- (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.

#### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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 adding the following new airworthiness directive (AD):



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**2012-16-14 Honeywell International Inc. (Formerly Allied Signal Inc. and Garrett Turbine Engine Company):** Amendment 39-17161; Docket No. FAA-2011-0945; Directorate Identifier 2011-NE-18-AD.

**(a) Effective Date**

This AD is effective October 1, 2012.

**(b) Affected ADs**

None.

**(c) Applicability**

(1) This AD applies to Honeywell International Inc. TFE731-20R, -20AR, -20BR, -40, -40AR, -40R, -50R, and -60 turbofan engines:

(i) With an engine model number and serial number (S/N) listed in Table 4 of Honeywell Service Bulletin (SB) TFE731-72-5221, Revision 0, dated November 11, 2010, or

(ii) With 2nd stage low-pressure turbine (LPT2) rotor assembly part numbers (P/Ns) 3060608-2, 3060608-3, or 3060608-5 that had any LPT2 rotor blades P/N 3075424-2 replaced between March 2009 and September 2010, inclusive, or that had any LPT2 rotor blades P/N 3075424-3 replaced between July 2010 and September 2010, inclusive.

**(d) Unsafe Condition**

This AD was prompted by a report of a quality escape of about 8,000 LPT2 rotor blades, manufactured by Honeywell Chihuahua Manufacturing Operation since 2009. During LPT rotor acceleration, these blades may contact and damage the 3rd stage LPT (LPT3) nozzle seal carrier that may subsequently fatigue and contact the adjacent rotor and damage the rotor. Also, these blades could deform the blade retainers, which could lead to blade movement that may cause rotor damage. We are issuing this AD to correct the unsafe condition caused by these blades installed on these engines.

**(e) Compliance**

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

**(f) Remove LPT2 Rotor Blades**

(1) At the next major periodic inspection, not to exceed 3,000 hours time-since-new, or within 5 years after the effective date of this AD, or at the next access, whichever occurs first, do the following using Section 3.0, Accomplishment Instructions, of Honeywell SB TFE731-72-5221, Revision 0, dated November 11, 2010:

- (i) Remove any suspect LPT2 rotor blades from service.
- (ii) Inspect suspect LPT2 rotor blades.

**(g) Alternative Methods of Compliance (AMOCs)**

The Manager, Los Angeles Certification Office, FAA, may approve AMOCs to this AD. Use the procedures found in 14 CFR 39.19 to make your request.

**(h) Definition**

For purposes of this AD, next access is defined as when the LPT module is disassembled.

**(i) Related Information**

For more information about this AD, contact Joseph Costa, Aerospace Engineer, Los Angeles Aircraft Certification Office, FAA, Transport Airplane Directorate, 3960 Paramount Blvd., Lakewood, CA 90712-4137; phone: 562-627-5246; fax: 562-627-5210; email: joseph.costa@faa.gov.

**(j) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Honeywell SB TFE731-72-5221, Revision 0, dated November 11, 2010.

(ii) Reserved.

(3) For Honeywell International Inc. service information identified in this AD, contact Honeywell International Inc., 111 S. 34th Street, Phoenix, AZ 85034-2802; Web site: <http://portal.honeywell.com>; or call Honeywell toll free at phone: 800-601-3099 (U.S./Canada) or 602-365-3099 (International Direct).

(4) You may view this service information at FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

(5) You may view this service information at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Burlington, Massachusetts, on August 6, 2012.

Mark C. Fulmer,  
Acting Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.