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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2004-18496; Directorate Identifier 2004-NE-04-AD; Amendment 39-14143; AD 2005-13-07]**

**RIN 2120-AA64**

### **Airworthiness Directives; Honeywell International Inc. (Formerly AlliedSignal Inc. and Garrett Turbine Engine Co.) TFE731-2 and -3 Series Turbofan Engines**

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

**ACTION:** Final rule.

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**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for Honeywell International Inc. (formerly AlliedSignal Inc. and Garrett Turbine Engine Co.) TFE731-2 and -3 series turbofan engines with certain part numbers (P/Ns) and serial numbers (SNs) of low pressure (LP) 1st and 2nd stage turbine rotor discs initially installed. This AD requires replacement of those LP 1st and 2nd stage turbine rotor discs. This AD results from a report of an uncontained failure of an LP 2nd stage turbine rotor disc that resulted in an in-flight engine shutdown. We are issuing this AD to prevent LP turbine rotor disk separation, which could result in an uncontained engine failure and damage to the airplane.

**DATES:** This AD becomes effective July 27, 2005. The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of July 27, 2005.

**ADDRESSES:** You can get the service information identified in this AD from Honeywell Engines and Systems (formerly AlliedSignal Inc. and Garrett Turbine Engine Co.) Technical Publications and Distribution, M/S 2101-201, P.O. Box 52170, Phoenix, AZ 85072-2170; telephone: (602) 365-2493 (General Aviation), (602) 365-5535 (Commercial Aviation), fax: (602) 365-5577 (General Aviation), (602) 365-2832 (Commercial Aviation).

You may examine the AD docket on the Internet at <http://dms.dot.gov> or in Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Joseph Costa, Aerospace Engineer, Los Angeles Aircraft Certification Office, FAA, Transport Airplane Directorate, 3960 Paramount Blvd., Lakewood CA 90712-4137; telephone: (562) 627-5246; fax: (562) 627-5210.

**SUPPLEMENTARY INFORMATION:** The FAA proposed to amend 14 CFR part 39 with a proposed AD. The proposed AD applies to Honeywell International Inc. (formerly AlliedSignal Inc. and Garrett Turbine Engine Co.) TFE731-2 and -3 series turbofan engines with certain P/Ns and SNs of LP 1st and 2nd stage turbine rotor discs initially installed as new parts before April 1, 1991. These discs were heat treated with a process that may have resulted in disk material with a non-uniform microstructure that is susceptible to creep fatigue, which may lead to cracking or separation. We published the proposed AD in the Federal Register on July 1, 2004 (69 FR 39875). That action proposed to require replacement of those LP 1st and 2nd stage turbine rotor discs.

### **Examining the AD Docket**

You may examine the docket that contains the AD, any comments received, and any final disposition in person at the DMS Docket Offices between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office (telephone (800) 647-5227) is located on the plaza level of the Department of Transportation Nassif Building at the street address stated in ADDRESSES. Comments will be available in the AD docket shortly after the DMS receives them.

### **Comments**

We provided the public the opportunity to participate in the development of this AD. We received no comments on the proposal or on the determination of the cost to the public.

### **Conclusion**

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

### **Costs of Compliance**

There are about 56 Honeywell International Inc. TFE731-2 and -3 series turbofan engines of the affected design in the worldwide fleet. We estimate that 24 engines installed on airplanes of U.S. registry will be affected by this AD. We also estimate that it will take about 4 work hours per engine to perform these actions, and that the average labor rate is \$65 per work hour. Required parts cost about \$30,000 per engine. Based on these figures, we estimate the total cost of this AD to U.S. operators to be \$726,240.

### **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 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); 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.

We prepared a summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary at the address listed under ADDRESSES.

## **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 Federal Aviation Administration 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:

# AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "www.faa.gov"*

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2005-13-07 Honeywell International Inc. (formerly AlliedSignal Inc. and Garrett Turbine Engine Co.):** Amendment 39-14143. Docket No. FAA-2004-18496; Directorate Identifier. 2004-NE-04-AD.

## Effective Date

- (a) This airworthiness directive (AD) becomes effective July 27, 2005.

## Affected ADs

- (b) None.

## Applicability

(c) This AD applies to Honeywell International Inc. (formerly AlliedSignal Inc. and Garrett Turbine Engine Co.) TFE731-2 and -3 series turbofan engines with the following low pressure (LP) 1st and 2nd stage turbine rotor disc part numbers (P/Ns), with serial numbers (SNs) listed in Tables 1, 2, and 3 of Honeywell International Inc. SB No. TFE731-72-3682, dated November 26, 2002, initially installed as new parts before April 1, 1991:

<b>PART NUMBERS</b>	
3072069-All	3073014-All
3072070-All	3073113-All
3072351-All	3071114-All
3072542-All	3074103-All
3073013-All	3074105-All

(All denotes all dash numbers installed)

These engines are installed on, but not limited to, the following airplanes:

Avions Marcel Dassault Mystere-Falcon 10 and 50 series  
Cessna Model 650, Citation III, and Citation VI  
Gulfstream Aerospace LP (formerly IAI) 1125 Westwind Astra series  
Israel Aircraft Industries (IAI) 1124 series  
Learjet 31, 35, 36, and 55 series  
Lockheed-Georgia 1329-25 series (731 Jetstar, Jetstar II)  
Raytheon Corporate Jets (formerly British Aerospace) DH/HS/BH-125 series;  
Sabreliner NA-265-65 (Sabreliner 65)

## **Unsafe Condition**

(d) This AD results from a report of an uncontained failure of an LP 2nd stage turbine rotor disc that resulted in an in-flight engine shutdown. We are issuing this AD to prevent LP turbine rotor disk separation, which could result in an uncontained engine failure and damage to the airplane.

## **Compliance**

(e) You are responsible for having the actions required by this AD performed within the compliance times specified unless the actions have already been done.

## **Removal From Service of LP 1st and 2nd Stage Turbine Rotor Discs**

(f) For TFE731-2-2J, TFE731-2-2N, TFE731-2A-2A, and TFE731-3-1J engines, replace discs that are listed by SN in Tables 1 and 3 of SB No. TFE731-72-3682, dated November 26, 2002, within 100 hours time-in-service (TIS) after the effective date of this AD.

(g) For TFE731-2 series engines except TFE731-2-2J, TFE731-2-2N, and TFE731-2A-2A engines, replace discs that are listed by SN in Tables 1 and 2 of SB No. TFE731-72-3682, dated November 26, 2002, at the next Major Periodic Inspection (MPI) or next access to the turbine discs after the effective date of this AD, but within 2,200 hours TIS since the last disc inspection, whichever occurs first.

(h) For TFE731-3 series engines except TFE731-3-1J, replace discs that are listed by SN in Table 3 of SB No. TFE731-72-3682, dated November 26, 2002, at the next MPI or next access to the turbine discs after the effective date of this AD, but within 1,500 hours TIS since the last disc inspection, whichever occurs first.

(i) Information on replacing affected discs can be found in Honeywell International Inc. SB No. TFE731-72-3682, dated November 26, 2002.

(j) After the effective date of this AD, do not install any LP 1st and 2nd stage turbine rotor disc that has a SN listed in Table 1, 2, or 3 of SB No. TFE731-72-3682, dated November 26, 2002, and determined to be manufactured before April 1, 1991.

## **Definitions**

(k) For the purposes of this AD, access to the turbine discs is the level of disassembly that has removed the tie-shaft nut.

## **Alternative Methods of Compliance**

(l) The Manager, Los Angeles Aircraft 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.

## **Material Incorporated by Reference**

(m) You must use Honeywell International, Inc. Service Bulletin No. TFE731-72-3682, dated November 26, 2002, to perform the replacements required by this AD. The Director of the Federal Register approved the incorporation by reference of this service bulletin in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Honeywell Engines and Systems Technical Publications and

Distribution, M/S 2101-201, P.O. Box 52170, Phoenix, AZ 85072-2170; telephone: (602) 365-2493 (General Aviation), (602) 365-5535 (Commercial Aviation), fax: (602) 365-5577 (General Aviation), (602) 365-2832 (Commercial Aviation) for a copy of this service information. You may review copies at the Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-0001, on the internet at <http://dms.dot.gov>, or 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/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

### **Related Information**

(n) None.

Issued in Burlington, Massachusetts, on June 13, 2005.

Francis A. Favara,

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

[FR Doc. 05-12080 Filed 6-21-05; 8:45 am]

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