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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2009-0555; Directorate Identifier 2009-NE-18-AD; Amendment 39-15996; AD 2009-17-05]

RIN 2120-AA64

Airworthiness Directives; Honeywell International Inc. TPE331-10 and TPE331-11 Series Turboprop Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for Honeywell International Inc. TPE331-10 and TPE331-11 series turboprop engines. This AD requires removing certain first stage turbine disks from service. This AD results from a report of an uncontained failure of a first stage turbine disk that had a metallurgical defect. We are issuing this AD to prevent uncontained failure of the first stage turbine disk and damage to the airplane.

DATES: This AD becomes effective September 1, 2009. We must receive any comments on this AD by October 16, 2009.

ADDRESSES: Use one of the following addresses to comment on this AD:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
- Mail: U.S. Docket Management Facility, Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- Fax: (202) 493-2251.

Contact Honeywell International Inc., 111 S. 34th Street, Phoenix, AZ 85034-2802; Web site: <http://portal.honeywell.com> for the service information identified in this AD.

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

SUPPLEMENTARY INFORMATION: In May 2008, we received a report of an uncontained separation of a first stage turbine disk, part number (P/N) 3107079-1. The disk was installed in a TPE331-11U turboprop engine. That disk, which has a 20,000-cycle life, failed after accumulating 8,314 cycles-in-service. The fracture revealed a large melt-related oxide cluster inclusion in the web area of the disk, which occurred during the forging alloy melting process. The disk was produced from Waspaloy material, from Heat Lot 9-7121, which was melted by Special Metals in 1980. We have determined that five turbine disks that were next to the failed disk during the billet-forging process may also contain part of the same melt-related oxide cluster inclusion. This condition, if not corrected, could result in uncontained failure of the first stage turbine disks made from these billets and damage to the airplane.

FAA's Determination and Requirements of This AD

The unsafe condition described previously is likely to exist or develop on other Honeywell International Inc. TPE331-10 and TPE331-11 series turboprop engines of the same type design with the affected first stage turbine disks installed. For that reason, we are issuing this AD to prevent uncontained failure of the first stage turbine disk and damage to the airplane. This AD requires removal from service of first stage turbine disks, P/Ns 3101520-1 and 3107079-1, serial numbers 2-03501-2299, 2-03501-2300, 2-03501-2301, 2-03501-2302, and 2-03501-2304, within 25 flight hours or 25 cycles-in-service after the effective date of this AD, whichever occurs first.

FAA's Determination of the Effective Date

Since an unsafe condition exists that requires the immediate adoption of this AD, we have found that notice and opportunity for public comment before issuing this AD are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety and was not preceded by notice and an opportunity for public comment; however, we invite you to send us any written relevant data, views, or arguments regarding this AD. Send your comments to an address listed under ADDRESSES. Include "AD Docket No. FAA-2009-0555; Directorate Identifier 2009-NE-18-AD" in the subject line of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify it.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of the Web site, anyone can find and read the comments in any of our dockets, including, if provided, the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office 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 street address for the Docket Operations office (telephone (800) 647-5527) is the same as the Mail address provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

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 the 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, Safety.

Adoption of the Amendment

Under the authority delegated to me by the Administrator, the Federal Aviation Administration amends 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. The FAA amends § 39.13 by adding the following new airworthiness directive:



2009-17-05 Honeywell International Inc. (formerly AlliedSignal Inc., Garrett Engine Division; Garrett Turbine Engine Company; and AiResearch Manufacturing Company of Arizona):
Amendment 39-15996. Docket No. FAA-2009-0555; Directorate Identifier 2009-NE-18-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective September 1, 2009.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Honeywell International Inc. TPE331-10 and TPE331-11 series turboprop engines with a first stage turbine disk, P/N 3101520-1 or 3107079-1, serial number 2-03501-2299, 2-03501-2300, 2-03501-2301, 2-03501-2302, or 2-03501-2304 installed. These engines are installed on, but not limited to, the following airplanes: British Aerospace Jetstream 3201 series, Cessna Aircraft Company Model 441 Conquest, Construcciones Aeronauticas, S.A. (CASA) C-212 series, Dornier Luftfahrt Dornier 228 series, Hawker Beechcraft (formerly Raytheon, formerly Beech) B100, C90 and E90, M7 Aerospace (formerly Fairchild) SA226 and SA227 series (Swearingen Merlin and Metro series), Mitsubishi MU-2B series (MU-2 series), PZL M18 series, and Twin Commander 680 and 690 series (Jetprop Commander).

Unsafe Condition

(d) This AD results from a report of an uncontained failure of a first stage turbine disk that had a metallurgical defect. We are issuing this AD to prevent uncontained failure of the first stage turbine disk 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 of First Stage Turbine Disks From Service

(f) Within 25 flight hours or 25 cycles-in-service after the effective date of this AD, whichever occurs first, remove from service first stage turbine disks, P/N 3101520-1 and P/N 3107079-1, serial numbers 2-03501-2299, 2-03501-2300, 2-03501-2301, 2-03501-2302, and 2-03501-2304.

Installation Prohibition

(g) After the effective date of this AD, do not install first stage turbine disks, P/N 3101520-1 and P/N 3107079-1, serial numbers 2-03501-2299, 2-03501-2300, 2-03501-2301, 2-03501-2302, and 2-03501-2304, into any engine.

Alternative Methods of Compliance

(h) 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.

Related Information

(i) Contact Joseph Costa, Aerospace Engineer, Los Angeles Aircraft Certification Office, FAA, Transport Airplane Directorate, 3960 Paramount Blvd., Lakewood, CA 90712-4137; e-mail: joseph.costa@faa.gov; telephone (562) 627-5246; fax (562) 627-5210, for more information about this AD.

(j) Honeywell International Inc. Alert Service Bulletin No. TPE331-72-A2150, dated June 13, 2008, pertains to the subject of this AD. Contact Honeywell International Inc., 111 S. 34th Street, Phoenix, AZ 85034-2802; Web site: <http://portal.honeywell.com>, for a copy of this service information, and for coordinating disk returns with the Honeywell Complete Customer Care Center.

Material Incorporated by Reference

(k) None.

Issued in Burlington, Massachusetts, on August 11, 2009.
Karen Grant,
Acting Manager, Engine and Propeller Directorate,
Aircraft Certification Service.