AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

AlliedSignal (Garrett/AiResearch) Turbine Engines - TFE731 Series

AD/TFE 731/35 High Pressure Turbine Rotor Discs Curvic Couplings 5/2008

Applicability: Honeywell International Inc. (Honeywell) TFE731-2C, -3B, -3BR, -3C, -3CR, -3D, -3DR, -4R, -5AR, -5BR, -5R, -20R, -20AR, -20BR, -40, -40AR, -40R, and -60 series turbofan engines.

Note 1: These engines are installed on, but not limited to Avions Marcel Dassault Mystere-Falcon 10 and 50 Series, Cessna Model 650, Citations III, VI, and VII, Dassault-Aviation 20, 50, 50EX, 900, MF900, and 900EX (900DX) Series, Gulfstream Aerospace LP (formerly IAI) 1125 Westwind Astra, Astra SPX, Gulfstream 100 Series Israel Aircraft Industries (IAI) 1124 Series (Westwind 1124), Learjet 31, 35, 36, 45 (or Learjet 40), and 55 Series, Lockheed-Georgia 3329-25 Series (731 Jetstar, Jetstar II), Raytheon Corporate Jets (formerly British Aerospace) Hawker 800 and 850 Series Sabreliner NA-265-65 (Sabreliner 65) aeroplanes.

Requirement:

1. For TFE731-2C, -3B, -3BR, -3C, -3CR, -3D, -3DR, -4R, -5AR, -5BR, and -5R series turbofan engines, remove HP turbine rotor assemblies from service containing HP turbine rotor discs, part number (P/N) 3075772-1, having any serial number (SN) in Table 1 of Honeywell Service Bulletin (SB) No. TFE731-72-3720, dated 5 July 2006.

2. For TFE731-20R, -20AR, -20BR, -40, -40AR, -40R, and -60 series turbofan engines, remove HP turbine rotor assemblies from service containing HP turbine rotor discs, P/N 3060841-1, having any SN in Table 1 of Honeywell Alert SB No. TFE731-A72-5185, dated 5 July 2006.

3. HP turbine rotor discs removed per Requirements 1 or 2 of this AD must pass a curvic root radius inspection performed by Honeywell Engines, Systems and Services, Phoenix, Arizona, Certificate Repair Station No. ZN3R030M before the discs are eligible for reinstallation in an engine.

For the purposes of this AD, access to the HP turbine rotor discs is defined as the removal of the HP turbine rotor assembly from the engine.

Note 2: FAA AD 2008-02-19 Amdt 15349 dated 16 January 2008 refers.

AlliedSignal (Garrett/AiResearch) Turbine Engines - TFE731 Series

AD/TFE 731/35 (continued)

Compliance:

1. For TFE731-2C, -3B, -3BR, -3C, -3CR, -3D, -3DR, -4R, -5AR, -5BR, and -5R series turbofan engines use the following drawdown schedule:

    a. For HP turbine discs with 4,200 cycles-since-new (CSN) or more on the effective date of this AD, remove HP turbine rotor assemblies within 100 cycles-in-service (CIS) after the effective date of this AD.

    b. For HP turbine discs with fewer than 4,200 CSN on the effective date of this AD, remove HP turbine rotor assemblies at the next access to the HP turbine rotor discs, but not to exceed 4,300 CSN.

2. For TFE731-20R, -20AR, -20BR, -40, -40AR, -40R, and -60 series turbofan engines use the following drawdown schedule:

    a. For HP turbine discs with 3,200 CSN or more on the effective date of this AD, remove HP turbine rotor assemblies within 100 CIS after the effective date of this AD.

    b. For HP turbine discs with fewer than 3,200 CSN on the effective date of this AD, remove HP turbine rotor assemblies at the next access to the turbine rotor discs, but not to exceed 3,300 CSN.

3. From the effective date of this AD.

This Airworthiness Directive becomes effective on 8 May 2008.

Background: This AD results from the manufacturer's report that some HP turbine rotor discs received improperly machined radii in the root of the forward and aft curvic teeth during manufacture. The issuing of this AD is intended to prevent uncontained failure of the HP turbine rotor assembly, which could result in damage to the aeroplane.

David Punshon
Delegate of the Civil Aviation Safety Authority

6 March 2008