General Electric Turbine Engines - CF34 Series

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 39.1 (1) of CAR 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.

AD/CF34/7 No.5 Bearing Rotating Air Seal 10/2001 DM

Applicability: CF34-1A, -3A, -3A1, -3A2, -3B and -3B1 engines incorporating No.5 bearing rotating air seal, P/No.4019T60G01.

Requirement:

1. Inspect the magnetic chip detector indicators. If chip detection is indicated, remove and visually inspect the chip detector. If debris is found comply with the requirements of the engine maintenance manual.

2. Replace the No.5 bearing rotating air seal, P/No.4019T60G01, with air seal, P/No 4019T60G03.

   Installation of air seal, P/No.4019T60G03 constitutes terminating action for the chip detector inspections in Requirement 1.

Note: FAA AD 2001-12-06 refers.

Compliance:

1. (a) **For CF34-3A1, -3B1 and -3B engines**, unless previously accomplished, carry out an initial check within 30 flight hours or 3 calendar days from the effective date of this Airworthiness Directive, whichever occurs later, and thereafter at intervals not to exceed 30 flight hours or 3 calendar days whichever is the greater.

   Inspection of the magnetic chip detector indicators may be performed by a pilot endorsed on the aircraft type provided a system is in place to direct the pilot when the inspection is due, the pilot signs for performing the inspection and maintenance staff are advised to complete Requirement 1 if a chip detection is indicated.

   (b) **For CF34-1A,-3A and -3A2 engines**, unless previously accomplished, carry out an initial check within 100 flight hours from the effective date of this Airworthiness Directive and thereafter at intervals not to exceed 100 flight hours.

2. (a) **For CF34-3A1, -3B1 and -3B engines**, replace the air seal at the next shop visit where the HPT is exposed, but not to exceed 15,000 cycles in service from the effective date of this Airworthiness Directive.

(b) **For CF34-1A, -3A and -3A2 engines**, replace the air seal at next hot section inspection or engine overhaul, whichever occurs first, but not to exceed 3000 hours time in service from the effective date of this Airworthiness Directive.

This Airworthiness Directive becomes effective on 22 August 2001.

Background: This Directive is prompted by advice that failure of a No.5 bearing rotating air seal resulted in a fire in the cavity of the low pressure turbine (LPT), overtemperature of the LPT disk and excessive disk growth. Such distress to the turbine disk could lead to an uncontained engine failure.

Eugene Paul Holzapfel
Delegate of the Civil Aviation Safety Authority

15 August 2001

The above AD is notified in the *Commonwealth of Australia Gazette* on 22 August 2001.