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.

CFM International Turbine Engines - CFM56 Series

AD/CFM56/32 Engine Hydromechanical Unit 10/2009 TX

Applicability: CFM International SA CFM56-5B engine models equipped with Hydromechanical units (HMU) VIN 8061-532 (P/N 1348M79P10), VIN 8061-535 (P/N 1348M79P13), VIN 8061-536 (P/N 1348M79P14), Serial Numbers (S/N) as identified within paragraph 1.A of CFM Service Bulletin CFM56-5B S/B 73-0238 Revision 1 and which have not been modified in accordance with CFM56-5A S/B 73-0208, CFM56-5B S/B 73-0239 or CFM56-5C S/B 73-0180.

Note 1: These engines are known to be installed on, but not limited to Airbus A318, A319, A320 and A321 series aeroplanes.

Requirement:

1. Check engine records for any occurrence of ECAM (Electronic Centralized Aircraft Monitoring) “ENG X START FAULT- ENG X STALL” and/or “ENG X COMPRESSOR VANE” warnings since entry into service of the HMUs.

Note 2: The letter “X” in ECAM warnings above is a placeholder for a numeral varying from 1 to 2.

2. For engines which have displayed before the effective date of this AD, any of the ECAM warnings described in Requirement 1 of this AD, replace the affected HMU with a serviceable unit.

3. For engines which have never displayed any of the ECAM warnings described in Requirement 1 of this AD:

   a. From the effective date of this AD, after any ECAM warnings described in Requirement 1 of this AD (during air or ground operations): Replace the affected HMU with a serviceable unit.

   b. If both engines on the same aeroplane are found with HMUs S/N as identified within paragraph 1.A of SB CFM56-5B S/B 73-0238 Revision 1, replace at least one HMU with a serviceable unit.

Replacement of an HMU with a serviceable unit must be done in accordance with paragraph 3.C of CFM Service Bulletin CFM56-5B S/B 73-0238 Revision 1.

CFM International Turbine Engines - CFM56 Series

AD/CFM56/32 (continued)

Optional Terminating Action: Modification of both HMUs per one of the following SBs: CFM56-5A S/B 73-0208, CFM56-5B S/B 73-0239 or CFM56-5C S/B 73-0180 is an alternative corrective action for the requirements of this AD.

The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.

Note 3: EASA AD 2009-0154-E dated 17 July 2009 refers.

Compliance: For Requirement 1 - Within 24 hours after the effective date of this AD, unless previously accomplished.

For Requirement 2 - Before further flight, unless previously accomplished.

For Requirement 3.a. - Before further flight.

For Requirement 3.b. - Within 30 days after the effective date of this AD.

This Airworthiness Directive becomes effective on 27 July 2009.

Background: In-flight compressor stall events have occurred on CFM56-5B turbofan engines. These events could have been caused by malfunction of the HMU Variable Stator Vanes (VSV)/Variable Bleed Valves (VBV) Scored Vanes and could lead to in-flight shutdown of the engine, which can result in a catastrophic effect at aircraft level if more than one engine is affected. This AD mandates the inspection and replacement of the affected HMUs.

James Coyne
Delegate of the Civil Aviation Safety Authority

23 July 2009