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.

Turbomeca Turbine Engines - Arriel Series

AD/ARRIEL/29 Low Fuel Pressure Switch 7/2008

Applicability: Turboméca S.A. ARRIEL 2B, 2B1 and 2B1A turboshaft engines.

Note 1: These engines are known to be installed on, but not limited to Eurocopter AS 350 B3 and EC 130 B4 helicopters.

Requirement:

1. Accomplish a one-time inspection of the Hydro Mechanical Unit (HMU) in accordance with paragraph 2 of Turboméca Mandatory Service Bulletin (MSB) 292 73 2826 to identify the low fuel pressure switch installed on adjusted HMU.

2. If a Hydra-Electric low fuel pressure switch Part Number (P/N) 9 550 17 956 0 is installed:

    a. Inspect low fuel pressure switch and chamber of the HMU body.

        i. If any parts from the low fuel pressure switch are missing or found in the HMU chamber, replace the HMU with a new or overhauled HMU equipped with an IN-LHC low fuel pressure switch.

        ii. If not, replace only the low fuel pressure switch with an IN-LHC low fuel pressure switch.

3. If an IN-LHC low fuel pressure switch P/N 9 550 17 199 0 or P/N 9 550 17 913 0 is installed:

    a. If an IN-LHC low fuel pressure switch has been installed since new, repair or overhaul, no further action is required.

    b. If a Hydra-Electric switch P/N 9 550 17 956 0 has been or may have been previously installed:

        i. Inspect the chamber of the HMU body.

        ii. If any parts are found in the HMU chamber, replace the HMU by a new or overhauled HMU equipped with an IN-LHC low fuel pressure switch.

Note 2: EASA AD 2008-0077 dated 28 April 2008 refers.

Compliance: No later than 30 September 2009.

Turbomeca Turbine Engines - Arriel Series

AD/ARRIEL/29 (continued)

This Airworthiness Directive becomes effective on 3 July 2008.

Background: Several cases of loss of internal components from the HMU low fuel pressure switch Hydra-Electric Part number 9 550 17 956 0 into the fuel system, have been reported on Arriel 2 engines. The loss of internal components from the low fuel pressure switch into the fuel system may lead to a rupture of the HP-LP pumps drive shaft shear pin, and thus to a possible uncommanded In-Flight Shut-Down (IFSD). On a single-engine helicopter, an uncommanded IFSD results in an emergency autorotation landing and in certain conditions may lead to an accident.

James Coyne
Delegate of the Civil Aviation Safety Authority

22 May 2008