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 - Arrius Series

AD/ARRIUS/10 Oil - Check-Valve Piston O-ring 9/2005

Applicability: TURBOMECA turboshaft engine ARRIUS 2F fitted to EC 120B helicopters.

Requirement:

1. Carry out paragraph 2 of Turbomeca Mandatory Alert Service Bulletin No A319 79 4802 or later DGAC approved revisions.

2. Repeat Requirement 1 of this Directive.

Note: DGAC AD F-2005-122 EASA approval reference No 2005-6069 dated 12 July 2005 refers.

Compliance:

1. After the effective date of this Directive, unless previously accomplished, carry out within the next 50 operating hours if the number of operating hours is greater than:

   300 hours for engines operating with HTS-class oil and engines for which the history of the oils used is not available or engines which used to operate with HTS-class oil and which no longer do so;

   450 hours for engines operating with STD class-oil since their introduction into service.

2. Every 300 hours for engines operating with HTS-class oil and engines for which the history of the oils used is not available or engines which used to operate with HTS-class oil and which no longer do so;

   Every 500 hours for engines operating with STD class-oil since their introduction into service.

This Airworthiness Directive becomes effective on 1 September 2005.

Background: Investigations of incidents which occurred on ARRIUS 2 turboshaft engines have revealed the interruption of engine lubrication due to oil passage blockage within the lubrication unit check valve.

This blockage comes from the excessive swelling of the check valve piston O-ring. The level of swelling of the O-ring depends from the class of the oil used (STD or HTS) and the engine operating time.

Turbomeca Turbine Engines - Arrius Series

AD/ARRIUS/10 (continued)

An interruption of the engine lubrication may lead to an uncommanded in-flight shutdown.

James Coyne
Delegate of the Civil Aviation Safety Authority

19 July 2005