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.

Eurocopter AS 350 (Ecureuil) Series Helicopters

AD/ECUREUIL/127 Main & Tail Rotors Servo Controls 7/2007 TX

Applicability: EUROCOPTER helicopters models AS 350 B, BA, BB, B1, B2, B3 and D equipped with GOODRICH main rotor servo-controls and tail rotor servo-controls with no letter “C” marked in the inspection box of the servo-control identification plate, and with the following Part Numbers (P/N) and Serial Numbers (S/N):

- Main rotor servo-controls

P/N SC5083 with S/N 270M, 272M, 409M, 423M, 452M or 1573

P/N SC5083-1 with S/N from 2902 to 2921, inclusive

P/N SC5084 with S/N 30, 84, 104, 186, 438, 575 or 695

P/N SC5084-1 with S/N from 1462 to 1481 inclusive.

And

- Tail rotor servo-controls:

P/N SC5072 with serial number 222M, 306M or 309.

Requirement:

1. Verify the P/N and S/N of the main rotor and tail rotor servo-controls in accordance with paragraph 1.E.2. of EUROCOPTER Alert Service Bulletin (ASB) No. 01.00.58 Revision 1 or later NAA approved revision.

   Instead of inspecting the rotorcraft, a review of the helicopter maintenance records along with any other applicable data (rotorcraft logbook, Components list, etc...) is acceptable if each P/N and S/N can be positively determined from that review.

2. When a servo-control whose P/N and S/N are listed in the applicability section of this AD, is identified:

   a. Check thoroughly that no “hard point” exists in the flight controls.

   b. If any “hard point” is detected in the flight controls, replace the defective servo-control(s) as instructed in paragraph 2.B. of EUROCOPTER ASB No. 01.00.58 Revision 1 or later NAA approved revision.

Eurocopter AS 350 (Ecureuil) Series Helicopters

AD/ECUREUIL/127 (continued)

c. Replace all servo-controls that are identified in the applicability section of this AD, as instructed in paragraph 2.B. of EUROCOPTER ASB No. 01.00.58 Revision 1 or later NAA approved revision.

3. Do not install rotors servocontrols whose P/N and S/N are listed in the applicability section of this AD, on any EUROCOPTER AS 350 helicopter unless they have been previously returned to conformity by the equipment manufacturer as indicated in paragraph 2. of EUROCOPTER ASB No. 01.00.58 Revision 1 or later NAA approved revision.

Note: EASA Emergency AD 2007-0141-E dated 21May 2007 refers.

Compliance:

1. Before further flight, after the effective date of this AD.

2. a. During each pre-flight test (see Rotorcraft Flight Manual section 4) and until accomplishment of requirement 2c of this AD is completed.

   b. Before further flight, after the effective date of this AD.

   c. Within the next 50 Flight Hours or 4 months after the effective date of this AD, whichever occurs first.

3. After the effective date of this AD.

This Airworthiness Directive becomes effective on 25 May 2007.

Background: An internal review revealed that some main and tail rotor servo-controls do not conform to the approved design. This results in a greater play in the input lever bearing which could lead to off-centered lever/distributor slide valve. If not corrected, this condition could jam the distributor slide valve in its sleeve contributing to reduced controllability of the rotors. Such a jamming would be detected during the pre-flight hydraulic check by a “hard point” in the flight controls. This Airworthiness Directive requires identification of the affected main and tail rotor servo-controls and mandates additional attention during the pre flight check and subsequent replacement.

Charles Lenarcic
Delegate of the Civil Aviation Safety Authority

22 May 2007