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/126 Fuselage Centre Cross-Member under Cabin Floor 7/2007 TX

Applicability: Model AS350 B, BA, BB, B1, B2, B3 and D helicopters, all serial numbers, delivered before 1 January 2007, and equipped with collective-to-yaw control coupling with or without an Automatic Flight Control System.

Requirement:

1. Confirm installation of the cross-member at station X 2165 and of the doublers at stations X 2325 and Y 269 as detailed in the Accomplishment Instructions paragraph of Eurocopter Alert Service Bulletin (ASB) 53.00.37 original issue, or later EASA approved revision.

   If the cross-member and the doublers are installed, no further action is required.

2. If the cross-member and/or doublers are not installed, check for cracks by a visual or a dye penetrant inspection, the centre cross-member at station X 2325, in the area around the attachment point of the tail rotor directional ball-type control as detailed in the Accomplishment Instructions paragraph of ASB 53.00.37 original issue, or later EASA approved revision.

   If no cracking is detected:

   Before further flight, check the tail rotor control rigging in accordance with the Accomplishment Instructions paragraph of ASB 53.00.37 original issue, or later EASA approved revision.

   Repeat the Requirement 2 inspection until Requirement 3 is accomplished.

   If any crack is detected:

   Flight is prohibited.

3. Install the cross-member at station X 2165 and the doublers at stations X 2325 and Y 269, in accordance with the Appendix paragraph of ASB 53.00.37 original issue, or later EASA approved revision.

Note: EASA Emergency AD 2007-0139-E refers.

Eurocopter AS 350 (Ecureuil) Series Helicopters

AD/ECUREUIL/126 (continued)

Compliance: For Requirements 1 and 2: Within 10 flight hours or 1 month after 18 May 2007, whichever occurs first. Repeat the Requirement 2 inspection at intervals not to exceed 55 flight hours; until accomplishment of Requirement 3.

Requirement 3: Within 12 months after 18 May 2007.

This Airworthiness Directive becomes effective on 18 May 2007.

Background: The EASA received a report of a crack in the area of the centre cross-member at station X 2325, at the attachment point of the yaw channel ball-type control sheath stop of a Model AS 355 N helicopter fitted with the collective-to-yaw control coupling. Investigation revealed that the helicopter was not equipped with the structure doublers, which are combined with the collective-to-yaw control coupling installation. Repetitive overloads on the non-modified cross member will cause it to crack, and result in reduction of yaw control travel with consequent reduced yaw control for the pilot.

David Punshon
Delegate of the Civil Aviation Safety Authority

16 May 2007