AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/ECUREUIL/100 Amdt 2 and issues the following 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/100 Amdt 3	**Emergency Floatation Gear - All-up Operating Weight**	**2/2009 DM**

Applicability: Eurocopter AS350 B, BA and D helicopters, all serial numbers equipped with the emergency flotation gear installation.

Requirement: Required as indicated unless already accomplished, in accordance with the instructions of Eurocopter Emergency Alert Service Bulletin (ASB) No. 01.00.59:

1. For all applicable models, inspect the emergency flotation gear to verify its conformity with the approved configuration in accordance with paragraph 2.B.1. of the ASB.

1.1. If the installation of the fixed and removable parts is not compliant and one of the two parts is limited to 1900 kg:

1.1.1. Flights over water are authorized but the maximum permissible helicopter weight is limited to 1900 kg.

1.1.2. Affix a label (A) to the cockpit instrument panel indicating the maximum permissible weight of the helicopter for flight over water in accordance with paragraph 2.B.2. of the ASB.

1.2. For AS350 BA helicopters, if the installation of the fixed and removable parts is not compliant and none of the two parts is limited to 1900 kg:

1.2.1. Flights over water are authorized but the maximum permissible helicopter weight is limited to 1950 kg.

1.2.2. Affix a label (B) to the cockpit instrument panel indicating the maximum permissible weight of the helicopter for flight over water in accordance with paragraph 2.B.2. of the ASB.

1.3. For all applicable models, if the installation of the fixed and removable parts is compliant:

1.3.1. For helicopters equipped with a flotation gear limited to 1900 kg:

- Flights over water are authorized but the maximum permissible helicopter weight is limited to 1900 kg.

Eurocopter AS 350 (Ecureuil) Series Helicopters

AD/ECUREUIL/100 Amdt 3 (continued)

- Affix a label (A) to the cockpit instrument panel indicating the maximum permissible weight of the helicopter for flight over water in accordance with paragraph 2.B.2. of the ASB.

1.3.2. For helicopters equipped with a flotation gear limited to 1950 kg:

- For AS350 B and D helicopters:
  - The maximum permissible weight of the helicopter for flight over water corresponds to the maximum permissible weight of the helicopter - refer to the Flight Manual to determine the maximum permissible weight of the helicopter.
- For AS350 BA helicopters:
  - Flights over water are authorized but the maximum permissible helicopter weight is limited to 1950 kg.
  - Affix a label (B) to the cockpit instrument panel indicating the maximum permissible weight of the helicopter for flight over water in accordance with paragraph 2.B.2. of the ASB.

1.3.3. For helicopters equipped with a flotation gear limited to 2600 kg:

- The maximum permissible weight of the helicopter for flight over water corresponds to the maximum permissible weight of the helicopter - refer to the Flight Manual to determine the maximum permissible weight of the helicopter.

2. For all applicable models, if the installation of the fixed and removable parts is non-compliant, return the emergency flotation gear to conformity:

   - By replacement of the non compliant removable part with another part which conforms with the fixed part, or
   - By replacement of the non compliant fixed part with another part which conforms with the removable part.

3. No person shall install an emergency flotation gear on a helicopter, unless its conformity with the approved configuration has been previously verified in accordance with paragraph 2.B.1. of the ASB.

Note: EASA AD 2008-0214-E refers.

Eurocopter AS 350 (Ecureuil) Series Helicopters

AD/ECUREUIL/100 Amdt 3 (continued)

Compliance:

1. Within 15 flying hours (FH) after the effective date of this Airworthiness Directive.

2. No later than one year after the inspection carried out by Requirement 1.

3. After the effective date of this Airworthiness Directive.

This Amendment becomes effective on 11 December 2008.

Background: For AS 350 helicopters there are three emergency flotation gear types, all certified by Eurocopter. Such floatation gears are validated for maximum helicopter weights for flight over water of 1900 kg, 1950 kg or 2600 kg respectively. Each emergency flotation gear type includes a fixed part and a removable part. It is technically possible to mix the fixed and removable parts between these three types of emergency flotation gears. However, non compliant (mixed) installation of fixed and removable parts of the three different emergency flotation gear types may cause insufficient effectiveness on ditching and may lead to instability of the helicopter on the water in case of emergency. This Airworthiness Directive requires an inspection of the emergency flotation gear installation to verify the conformity of its fixed and removable parts.

The original issue of this Directive, effective on 23 June 2004, was issued to limit the helicopter all-up weight to 1,950 kg, for all flights over water, for AS 350 BA helicopters equipped with Aerazur emergency floatation gear specified in the applicability part of this Directive.

Amendment 1 allows operation at all-up weights greater than 1950 kg for operations over water where the underslung load is jettisonable or the helicopter is flown within autorotative gliding distance from land. The requirements of CAO 20.11 Section 5.3 “Helicopter Floatation Systems” still apply and are not affected by this Airworthiness Directive. There is no change to the compliance time in this amendment.

Amendment 2 was issued to introduce the current EASA Airworthiness Directive related to this Directive, which clarified helicopter applicability; with no change to technical requirements.

Amendment 3 expands the applicability to include B and D model aircraft and to limit the maximum weights for over water operations for all applicable aircraft depending on any incorrect combinations of equipment fitted.

David Villiers
Delegate of the Civil Aviation Safety Authority

9 December 2008