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/131 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/131 Amdt 1 — Stabiliser Upper and Lower Fin Attachment Fitting - Modification — 4/2009 DM

Applicability: Model AS 350 B, B1, B2, B3, BA, BB and D helicopters, all serial numbers, fitted with the following upper and lower fins on which Modification (MOD) 073330 has not been incorporated:

Upper fin assembly part numbers: 350A14-0020-00XX, -01XX, -02XX, -03XX, -08XX, -09XX, -10XX, -17XX, -18XX, -19XX, and part number 350A64-1144-00XX.

Lower fin assembly part numbers: 350A14-0021-00XX, -01XX, -02XX, -03XX, and -04XX.

Requirement: Required as indicated, unless already accomplished.

1. For AS 350 B, B1, B2, BA, BB and D helicopters:

   No later than 31 March 2009, remove the fins, modify the upper and lower fittings on the tail boom by increasing the diameter of the bolt holes, and replace bolts part number 22126BV060032L and washers part number 23112AG060LE with special bolts part number 350A23-4016-20 and special washers part number 350A23-4017-22; in accordance with EUROCOPTER AS 350 Alert Service Bulletin (ASB) No. 55.00.16 Revision 1 (MOD 073330), or later EASA approved revision.

2. For AS 350 B3 helicopters equipped with the upper fin pre MOD 073148:

   a. For helicopters with upper and lower fins pre MOD 073288:

      (i) For helicopters which have accumulated less than 110 flight hours after 15 March 2006:

      Within 110 flight hours after 15 March 2006, replace upper and lower fin attachment screws in accordance with paragraph 2.B.1 and 2.B.2 of ASB No. 55.00.13 Revision 2 (MOD 073288), or later EASA approved revision.

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(ii) For helicopters which have accumulated more than 110 flight hours after 15 March 2006:

Within 15 flight hours after 26 February 2009, replace upper and lower fin attachment screws in accordance with paragraph 2.B.1 and 2.B.2 of ASB No. 55.00.13 Revision 2, or later EASA approved revision.

(iii) At intervals not exceeding 110 flight hours, check the tightening torque of the upper fin attachment screws and check the upper fin reinforcement splice for cracks and loosened rivets in accordance with the instructions specified in paragraph 2.B.3 of ASB No. 55.00.13 Revision 2, or later EASA approved revision.

(iv) In the case of cracks, loosened rivets in the reinforcement splice or if the tightening torque of one or both of the attachment screws is less than 80% of the minimum torque value, before further flight, apply associated corrective actions in accordance with the instructions of paragraph 2.B.3.a.1, 2.B.3.a.2, or 2.B.3.a.3 (as applicable) of ASB 55.00.13 Revision 2, or later EASA approved revision.

b. For helicopters with upper and lower fins post MOD 073288:

(i) For helicopters which have accumulated less than 110 flight hours since the latest check performed in accordance with paragraph 2.B.3 of ASB No. 55.00.13 Revision 0, or later EASA approved revision:

Within 110 flight hours after the latest check performed in accordance with paragraph 2.B.3 of ASB No. 55.00.13 Revision 0, or later EASA approved revision, check the tightening torque of the upper fin attachment screws and check the upper fin reinforcement splice for cracks and loosened rivets in accordance with the instructions specified in paragraph 2.B.3 of ASB No. 55.00.13 Revision 2, or later EASA approved revision. Repeat thereafter at intervals not to exceed 110 flight hours.

(ii) For helicopters which have accumulated more than 110 flight hours since the latest check performed in accordance with paragraph 2.B.3 Revision 0, or later EASA approved revision:

Within 15 flight hours after 26 February 2009, check the tightening torque of the upper fin attachment screws and check the upper fin reinforcement splice for cracks and loosened rivets in accordance with the instructions specified in paragraph 2.B.3 of ASB No. 55.00.13 Revision 2, or later EASA approved revision. Repeat thereafter at intervals not to exceed 110 flight hours.

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(iii) In the case of cracks, loosened rivets in the reinforcement splice or if the tightening torque of one or both of the attachment screws is less than 80% of the minimum torque value, before further flight, apply the associated corrective actions in accordance with the instructions of paragraph 2.B.3.a.1, 2.B.3.a.2, or 2.B.a.3 (as applicable) of ASB 55.00.13 Revision 2, or later EASA approved revision.

3. For all AS 350 B3 helicopters:

   Unless already accomplished, no later than 31 March 2009, remove the fins, modify the upper and lower fittings on the tail boom by increasing the diameter of the bolt holes, and replace bolts part number 22126BV060032L and washers part number 23112AG060LE with special bolts part number 350A23-4016-20 and special washers part number 350A23-4017-22; in accordance with ASB No. 55.00.16 Revision 1, (MOD 073330), or later EASA approved revision.

   Compliance with Requirement 3 of this Directive is considered as acceptable compliance with Requirements 2.a.(i) and 2.a.(ii), and terminating action for the repetitive checks of Requirements 2.a.(iii), 2.b.(i) and 2.b.(ii) of this Directive.

4. After 31 March 2009, upper and lower fins with part numbers listed in the applicability section of this Directive, and held as spares, shall not be installed on any helicopter unless MOD 073330 has been incorporated.

Note: EASA AD 2009-0030 refers.

Compliance: As specified in Requirements 1, 2, 3 and 4.

This Amendment becomes effective on 26 February 2009.

Background: The EASA received several reports of cracking in the stabiliser upper fin of Model AS 355 N helicopters. The growth of a crack in a fin attachment spar, unless detected and corrected, could lead to failure of the spar and loss of the fin.

The EASA AD related to this Directive, AD 2008-0121, supersedes EASA ADs 2006-0060-E (AD/ECUREUIL/118) and 2006-0095 (AD/ECUREUIL/107 Amdt 1), and thereby constitutes terminating action to the requirements of these CASA ADs.

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AD/ECUREUIL/131 Amdt 1 (continued)

Amendment 1 is issued in response to a new EASA AD, which adds new upper and lower fin assembly part numbers to applicability and includes repetitive checks for some AS 350 B3 helicopters until accomplishment of MOD 073330.

David Villiers
Delegate of the Civil Aviation Safety Authority

18 February 2009