EASA AD No: 2011-0108

AD No.: 2011-0108 Date: 07 June 2011 Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This AD is issued in accordance with EC 1702/2003, Part 21A.3B. In accordance with EC 2042/2003 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD unless otherwise specified by the Agency [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].

Type Approval Holder's Name:		Type/Model designation(s):
EUROCOPTER		EC 155 helicopters
TCDS Number:	France No. 159	
Foreign AD:	Not Applicable	
Supersedure:	This AD supersedes EASA AD 2007-0259R1 dated 28 September 2007, including the Correction dated 26 February 2010.	
ATA 53	Fuselage – Upper Fin / Fe Replacement	nestron Attachment Fittings – Inspection
Manufacturer(s):	Eurocopter (formerly Eurocopter France, Aerospatiale).	
Applicability:	EC 155 B and EC 155 B1 helicopters, all serial numbers.	
Reason:	In 2007, an in-flight event with an EC 155 B1 helicopter was reported, resulting the loss of the fin. During the investigation, a crack in the fittings attaching the upper fin to the fenestron (tail rotor assembly) was discovered. Analysis has shown that such type of crack is likely to exist or develop in other helicopters with the same fin / fenestron design: EC 155 B, SA 365 and AS 365 series, and SA 366 G1 helicopters.	
	This condition, if not detected and corrected, could lead to detachment of the fin during flight, possibly resulting in reduced control of the helicopter and/or injury persons on the ground.	
	Prompted by this event and pending the results of the investigation, EASA issue Emergency AD 2007-0259-E to require repetitive inspections of the upper fin attachment fittings.	
	The results of subsequent investigations have shown that, due to lower loads compared to those which applies on the EC 155 fin / fenestron fittings, the unsafe condition cannot exist on SA 365, AS 365 and SA 366 helicopters and EASA AD 2007-0259-E was revised to delete those helicopters from the AD applicability.	
	Eurocopter have now developed modification (MOD) 0754B40 to increase the strength of the fuselage-fin junction fittings which constitutes terminating action for the repetitive inspections. MOD 0754B40 encompasses the replacement of the two-piece fin fittings, front fittings Part Number (P/N) 365A23-4240-01 and	

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	P/N 365A23-4242-01 and rear fittings P/N 365A23-4241-01 and P/N 365A23-4243-01, by two reinforced single-piece fittings, front fitting P/N 365A23-4218-20 and rear fitting P/N 365A23-4219-20. For the reasons described above, this AD retains parts of the requirements of		
	EASA AD 2007-0259R1, which is superseded, and requires the implementation of the MOD 0754B40.		
Effective Date:	21 June 2011		
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously:		
	(1) Within 15 flight hours (FH) after 02 October 2007 [the effective date of EASA AD 2007-0259-E], or within 55 FH since the helicopter first flight, whichever occurs later, inspect the front and rear upper fittings, P/N 365A23-4242-01 and P/N 365A23-4243-01 respectively, and the front and rear lower fittings, P/N 365A23-4240-01 and P/N 365A23-4241-01 respectively, of the upper fin in accordance with the instructions of Eurocopter EC155 Alert Service Bulletin (ASB) 05A017 revision 2.		
	(2) Thereafter, at intervals not to exceed 55 FH, repeat the inspection required by paragraph (1) of this AD in accordance with the instructions of Eurocopter EC155 ASB 05A017 revision 2.		
	(3) If, during the inspections required by paragraphs (1) and (2) of this AD, any crack is found, before next flight, replace the shroud/fin junction fittings in accordance with the instructions of Eurocopter EC155 SB 53-029 Revision 1 (implementation of MOD 0754B40).		
	(4) Inspections of attachment fittings, accomplished before the effective date of this AD, in accordance with the instructions of Eurocopter EC155 ASB 05A017 at original issue and revision 1, are considered acceptable for compliance with the inspection requirements of this AD.		
	(5) Within 6 calendar months after the effective date of this AD, unless already accomplished as required by paragraph (3) of this AD, replace the shroud/fin junction fittings in accordance with the instructions of Eurocopter EC155 SB 53-029 Revision 1 (implementation of MOD 0754B40).		
	(6) Modification of a helicopter, as required by paragraph (3) or (5) of this AD, as applicable, constitutes terminating action for the repetitive inspection requirements of this AD for that helicopter.		
	(7) After modification of a helicopter, as required by paragraph (3) or (5) of this AD, or after in-production embodiment of MOD 0754B40, do not install upper fin attachment front fittings P/N 365A23-4240-01 and 365A23-4242-01 or rear fittings P/N 365A23-4241-01 and P/N 365A23-4243-01 on any helicopter.		
Ref. Publications:	Eurocopter EC155 Alert Service Bulletin 05A017 Revision 2 dated 09 December 2010.		
	Eurocopter EC155 Service Bulletin 53-029 Revision 1 dated 10 March 2011.		
	The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.		
Remarks :	If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.		
	 This AD was posted on 02 May 2011 as PAD 11-046 for consultation until 30 May 2011. No comments were received during the consultation period. 		
	 Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA. E-mail <u>ADs@easa.europa.eu</u>. 		

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4. For any question concerning the technical content of the requirements in this AD, please contact: EUROCOPTER (STDI) - Aéroport de Marseille Provence 13725 Marignane Cedex, France.
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