


<b>EASA</b>	<b>AIRWORTHINESS DIRECTIVE</b>	
	<p><b>AD No.: 2010-0254</b></p> <p><b>Date: 06 December 2010</b></p> <p>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.</p>	
<p>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].</p>		
<p><b>Type Approval Holder's Name :</b></p> <p>Eurocopter Deutschland GmbH</p>		<p><b>Type/Model designation(s) :</b></p> <p>EC 135 and EC 635 helicopters</p>
<p>TCDS Number : EASA.R.009</p>		
<p>Foreign AD : Not applicable</p>		
<p>Supersedure : This AD supersedes EASA AD 2009-0065R1 dated 08 September 2009.</p>		
<p><b>ATA 53</b></p>		
<p><b>Fuselage – Rear Structure / Tail Boom – Pre-Flight Check / Inspection / Modification</b></p>		
<p>Manufacturer(s): Eurocopter Deutschland GmbH, Eurocopter ESPANA S.A.</p>		
<p>Applicability: EC 135 P1(CDS), EC 135 P1(CPDS), EC 135 P2(CPDS), EC 135 P2+, EC 135 T1(CDS), EC 135 T1(CPDS), EC 135 T2(CPDS), EC 135 T2+, EC 635 T1(CPDS), EC 635 P2+ and EC 635 T2+ helicopters, all serial numbers.</p>		
<p>Reason:</p> <p>During a pre-flight check on an EC135 helicopter, a crack was detected on the ring frame that connects the tail rotor Fenestron housing to the rear structure tube (tail boom). The crack ran alongside one rivet row over about one third of the circumference of the ring frame. This condition, if not corrected, could lead to crack propagation remaining undetected, possibly resulting in loss of the Fenestron structure and consequent loss of control of the helicopter.</p> <p>To address and correct this unsafe condition, EASA issued Emergency AD 2008-0190-E that required the amendment of the basic Flight Manual (FLM), the accomplishment of repetitive pre-flight checks, a one-time inspection and corrective actions. Based on in-service feedback, Eurocopter Deutschland (ECD) revised Alert Service Bulletin (ASB) EC135-53A-022 to introduce a repetitive visual inspection.</p> <p>For the reason described above, EASA AD 2009-0065 was issued, retaining the requirements of EASA AD 2008-0190-E, which was superseded, expanding the applicability to include EC 135 helicopters manufactured in Spain and adding a repetitive inspection of the rear fuselage structure (tail boom) area for cracks.</p> <p>ECD subsequently developed a modification (reinforcement) of the aft ring frame, including Part Number (P/N) change, for both production and in-service application. Consequently, AD 2009-0065 was revised to remove helicopters</p>		

	<p>from the Applicability of the AD that have a new or modified aft ring frame P/N L535H2120302 installed and to introduce modification (and re-identification) of the aft ring frame as optional terminating action for the required repetitive checks and inspections.</p> <p>More recently, EASA have determined that, to ensure an adequate safety level, the interval of the visual inspection must be reduced from 100 flight Hours (FH) to 25 FH. In addition, the optional terminating action is to be made mandatory.</p> <p>For the reasons described above, this new AD retains the requirements of EASA AD 2009-0065R1, which is superseded, reduces the interval of the visual inspection and requires modification (and re-identification) of the aft ring frame as terminating action for the repetitive checks and inspections.</p>
Effective Date:	20 December 2010
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <p><b>For helicopters that have an aft ring frame P/N L535A3501230 installed:</b></p> <p>(1) Before next flight after 27 March 2009 [the effective date of AD 2009-0065], amend the FLM, Section 4 Pre-Flight Check, by inserting page 6 or 7, as applicable to helicopter Model, of ECD EC135 ASB EC135-53A-022 into the FLM, and inform the flight crew accordingly.</p> <p>Amending the FLM to the revision level as indicated in Appendix 1 of this AD, as applicable to helicopter Model, is acceptable to comply with the requirement of paragraph (1) of this AD.</p> <p>(2) Before next flight after 27 March 2009 [the effective date of AD 2009-0065] and thereafter before each first flight of a day, accomplish the visual check of the rear structure tube in accordance with the instructions of ECD ASB EC135-53A-022. The pilot is allowed to accomplish this check as part of the regular pre-flight checks.</p> <p>(3) Within 25 FH (+ 5 FH tolerance) or within 100 FH since the last inspection as required by EASA AD 2009-0065R1, whichever occurs first after the effective date of this AD, and thereafter at intervals not to exceed 25 FH (+ 5 FH tolerance), accomplish a visual inspection in accordance with the instructions of ECD ASB EC135-53A-022 Revision 2.</p> <p>(4) If, during any check or inspection as required by paragraph (2) or (3) of this AD, cracks are detected within the ring frame as specified in the ASB, before further flight, replace the ring frame with a serviceable part.</p> <p>(5) Installation of a P/N L535A3501230 ring frame as replacement part does not constitute terminating action for the repetitive check/inspection requirements of this AD.</p> <p>(6) Within 12 months after the effective date of this AD, modify the aft ring frame and change the ring frame P/N to L535H2120302, in accordance with the instructions of ECD Service Bulletin (SB) EC135-53-023.</p> <p>(7) Modification of a helicopter as required by paragraph (6) of this AD constitutes terminating action for the repetitive check/inspection requirements of this AD for that helicopter. After modification of a helicopter as required by paragraph (6) of this AD, do not install an aft ring frame P/N L535A3501230 on that helicopter</p> <p><b>For helicopters that have an aft ring frame P/N L535H2120302 installed:</b></p> <p>(8) From the effective date of this AD, do not install an aft ring frame P/N L535A3501230 on a helicopter.</p>
Ref. Publications:	<p>Eurocopter Deutschland ASB EC135-53A-022, Revision 2 dated 30 November 2010.</p> <p>Eurocopter Deutschland SB EC135-53-023, original issue dated 19 August</p>

	<p>2009.</p> <p>The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.</p>
Remarks :	<ol style="list-style-type: none"><li>1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.</li><li>2. The required actions and the risk allowance have granted the issuance of a Final AD with Request for Comments, postponing the public consultation process after publication.</li><li>3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management &amp; Research Section, Certification Directorate, EASA. E-mail <a href="mailto:ADs@easa.europa.eu">ADs@easa.europa.eu</a></li><li>4. For any question concerning the technical content of the requirements in this AD, please contact: Eurocopter Deutschland GmbH, Industriestrasse 4, 86607 Donauwörth, Federal Republic of Germany Telephone: + 49 (0)151-1422 8976, Fax: + 49 (0)906-71 4111.</li></ol>

## Appendix 1

## Flight Manual (FLM) Revisions

Helicopter Model	FLM Revision
EC135 T2+	6
EC635 T2+	5
EC135 P2+	6
EC635 P2+	5
EC135 T2 (CPDS)	15
EC135 P2 (CPDS)	19
EC135 T1 (CPDS)	25
EC635 T1 (CPDS)	25
EC135 P1 (CPDS)	21
EC135 T1 (CDS)	24
EC135 P1 (CDS)	21