


<b>EASA</b>	<b>AIRWORTHINESS DIRECTIVE</b>	
	<p><b>AD No.: 2010-0100R1</b>  <b>Corrected: 11 August 2010</b></p> <p><b>Date: 04 August 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> EUROCOPTER</p>		<p><b>Type/Model designation(s) :</b> SA 365 and AS 365 helicopters</p>
<p>TCDS Number : France No.159</p>		
<p>Foreign AD : Not applicable</p>		
<p>Revision: This AD revises EASA Emergency AD 2010-0100-E dated 26 May 2010, which superseded EASA AD 2009-0241-E dated 05 November 2009 and its correction dated 10 December 2009.</p>		
<b>ATA 34</b>		<b>Navigation - Vertical Gyro Unit Data Output - Operational Limitation / Operational Procedure / Reinforcement</b>
<p>Manufacturer(s): Eurocopter (formerly Eurocopter France, Aerospatiale)</p>		
<p>Applicability: SA 365 N1, AS 365 N2 and AS 365 N3 helicopters, all serial numbers except 6698, 6701, 6723, 6737 and 6741, delivered before 01 May 2010, flying in IMC (Instrumental Meteorological Conditions), IFR (Instrument Flight Rules) or Night VFR (Visual Flight Rules) conditions, if equipped with the vertical gyro units GV76-1 installed on the rear left hand (LH) or rear right hand (RH) rack, on which modification 365P081895 (reinforcement of rack for vertical gyro unit GV76-1 in the rear compartment) has not been incorporated.</p> <p>Helicopters equipped with electromechanical horizons (instead of attitude display screens) are not affected by the requirements of this AD.</p>		
<p>Reasons</p> <p>A slow drift in the roll axis on the pilot's and co-pilot's horizon of the flight control displays occurred simultaneously during flight on several helicopters equipped with the GV76-1 vertical gyro unit installation in cargo compartment.</p> <p>Investigation has shown that these drifts were caused by a fault in the vertical gyros unit installation in the rear cargo.</p> <p>In certain configurations, the GV76-1 vertical gyro unit installation has a natural mode close to the main rotor's harmonic frequency which generates rather significant vibratory levels on the GV76-1 unit by amplifying the intrinsic vibration of the aircraft. The faults are caused by these vibratory levels.</p>		

	<p>In fact the load on the upper shelf has no effect on this mode. The critical mode is essentially due to bending on the horizontal cross-members which support the GV76-1 shelf.</p> <p>Pending the availability of a corrective action aimed at precluding any risk of drift on the pilots' horizons occurring at the same time and in the same direction, EASA AD 2008-0195-E mandated an operational limitation and an operational procedure for all flights in IMC (IFR) or night VFR.</p> <p>EASA 2009-0241-E which superseded EASA AD-2008-0195-E, was issued in order to extend the applicability to SA 365 N1 and AS 365 N2 helicopters and to any SA 365 N1, AS 365 N2 and AS 365 N3 helicopter equipped with vertical gyro units GV76-1 installed on the rear RH rack.</p> <p>For the reasons described above, EASA Emergency AD 2010-0100-E was issued, retaining the requirements of EASA 2009-0241-E, which was superseded, requiring the embodiment of the modification 365P081895 which require to reinforce the GV76-1 vertical gyro unit upper shelf by adding two attachment points between the cargo floor and the horizontal cross-members of the shelf which supports the GV76-1 units. Embodiment of the modification 365P081895 constitutes a terminating action for the operational limitation imposed by this AD.</p> <p>This AD has been revised to exclude some individual helicopters (which have a different configuration) from the Applicability, as well as all helicopters that have electromechanical horizons installed instead of attitude display screens.</p> <p>This AD has been republished to correct a typographical error; this AD should be referencing Revision 1 of Eurocopter AS365 ASB 34.00.31, not R2.</p>
Effective Date:	<p>Revision 1: 18 August 2010</p> <p>Original Issue: 28 May 2010</p>
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <ol style="list-style-type: none"> <li>(1) From 28 May 2010 [the effective date of the original issue of this AD], if one of the following equipments: the autopilot channels, the flight coupler and the stand-by horizon is/are not fully operative, operating the helicopter in IMC or Night VFR condition is prohibited.</li> <li>(2) During each flight after 28 May 2010 [the effective date of the original issue of this AD], if the autopilot channels, the flight coupler and the stand-by horizon are fully operative in both the single-pilot and the two-pilot configuration, the operational procedure described in paragraph 2.B. of Eurocopter Alert Service Bulletin (ASB) No. 01.00.61 must be accomplished at intervals not exceeding 5 flying minutes during flight phases in IMC conditions, IFR conditions or Night VFR without visible horizon conditions.</li> <li>(3) Compliance with this AD may be recorded by inserting a copy of this AD into section 4-8 "special operating procedure" of the Rotorcraft Flight Manual (RFM).</li> <li>(4) Within 110 flight hours after 28 May 2010 [the effective date of the original issue of this AD], but not later than 31 December 2010, reinforce the GV76-1 vertical gyro unit upper shelf in accordance with paragraph 2.B of the EASB AS 365 No. 34.00.31. Modification of a helicopter as required by paragraph (4) of this AD constitutes terminating action for the limitation imposed by paragraph (1) of this AD and the repetitive check requirements of paragraph (2) of this AD.</li> </ol>

Ref. Publications:	<p>Eurocopter AS365 ASB No.01.00.61 Revision 3 dated 28 July 2010.</p> <p>Eurocopter AS365 ASB No.34.00.31 Revision 1 dated 28 July 2010.</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 (STDI) – Aéroport de Marseille Provence 13725 Marignane Cedex – France Telephone: +33 (0)4 42 85 97 97, Fax: +33 (0)4 42 85 99 66 E-mail: <a href="mailto:Directive.technical-support@eurocopter.com">Directive.technical-support@eurocopter.com</a>.</li> </ol>