


<b>EASA</b>	<b>AIRWORTHINESS DIRECTIVE</b>	
	<p><b>AD No.: 2007-0008</b></p> <p><b>Date: 9 January 2007</b></p>	
<p>No person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive unless otherwise agreed with the Authority of the State of Registry.</p>		
<p><b>Type Approval Holder's Name :</b></p> <p>AIRBUS SAS</p>	<p><b>Type/Model designation(s) :</b></p> <p>A330 and A340-200 and -300 series</p>	
<p>TCDS Numbers: EASA A.004, EASA A.015</p>		
<p>Foreign AD: Not applicable.</p>		
<p>Supersedure : DGAC AD F-2005-171 approved under EASA reference 2005-6349</p>		
<p><b>ATA 27</b></p>	<p><b>Flight Controls – Elevator Servo Controls – Test / Modification</b></p>	
<p><b>Manufacturer(s):</b></p>	<p>AIRBUS (formerly AIRBUS INDUSTRIE)</p>	
<p><b>Applicability:</b></p>	<p>AIRBUS A330-200, A330-300, A340-200 and A340-300 aircraft, all certified models, all serial numbers, except those on which AIRBUS modification 54833 has been embodied in production or AIRBUS Service Bulletin (SB) A330-27-3136 or SB A340-27-4135 has been embodied in service.</p> <p>Reminder: It is the responsibility of the operator to ensure that any spare part that has been or could be installed on the aircraft does not invalidate the compliance of the aircraft with the requirements of this AD.</p>	
<p><b>Reason:</b></p>	<p>Each elevator is equipped with two servo controls having three operating modes: Active mode, Damping mode, and Centering mode. In normal operation, each elevator is actuated by one servo control in Active mode, while the other is in Damping mode.</p> <p>The mode change from Active to Damping is achieved by a Mode-Selector Spool Valve installed inside each servo control. The position of this spool valve is commanded by a rod which slides through a guide.</p> <p>Some operators have reported cases of elevator servo control removals due to warning "FCTL ELEV SERVO FAULT". During the shop repairs, some of these servo controls installed at the active position were found with the guide broken. The broken guides resulted in the inability for the affected servo controls to change their operating mode.</p> <p>The investigation has revealed that the root cause of the broken guides is a fatigue rupture induced by successive pressure cycles inside the servo control resulting in a progressive decrease of the tightening torque of the plug.</p> <p>This situation, if not corrected, could result at worst in loss of the elevator</p>	

	<p>during take off roll phase, unannounced to the flight crew and in the extreme case reduce the controllability of the aircraft, which is potentially critical.</p> <p>The aim of the AD F-2005-171 was to mandate an additional periodic test of the elevator servo-loops in order to check the elevator servo controls ability to change their operating mode.</p> <p><u>Note:</u> The additional periodic test set up by this AD does not supersede the existing CMR task which remains applicable.</p> <p>The aim of this new AD is to :</p> <ul style="list-style-type: none"> <li>- take over the requirements of AD F-2005-171,</li> <li>- refer to SB A330-27-3138 Revision 02 replacing the AOT A330-27A3138 Revision 01 further to its availability,</li> <li>- refer to SB A340-27-4137 Revision 02 replacing the AOT A340-27A4137 Revision 01 further to its availability,</li> <li>- render mandatory the terminating action which introduce new elevator servo-controls with new plug-guide assembly.</li> </ul>
Effective Date:	23 January 2007
Compliance:	<p><b><u>1. Periodic Test of the elevator servo-loops</u></b></p> <p>The following measures are rendered mandatory from October 03, 2005 [effective date of the AD F-2005-171]:</p> <p><b>1.1</b> Within 200 flight hours (FH) after 03 October 2005 [effective date of the AD F-2005-171], perform the periodic test of the elevator servo-loops in accordance with instructions given in AIRBUS SB A330-27-3138 Revision 02 or SB A340-27-4137 Revision 02, as applicable.</p> <p><b>1.2</b> Thereafter, at intervals not exceeding 140 FH or 8 calendar days, whichever occurs first after the previous test, repeat the test defined in paragraph 1.1 of this directive.</p> <p><b>1.3</b> If during the initial or repetitive test, the elevator servo control fails the test, before next flight, apply the necessary corrective actions in accordance with the instructions defined in SB A330-27-3138 Revision 02 or SB A340-27-4137 Revision 02, as applicable, and report to Airbus, address indicated in the Remarks section of this directive.</p> <p><b><u>2. Modification</u></b></p> <p>Unless already accomplished, not later than 30 June 2008, modify the four elevator servo-controls in accordance with instructions defined in AIRBUS SB A330-27-3136 or SB A340-27-4135, as applicable.</p> <p>After installation on aircraft of the modified elevator servo controls in accordance with instructions of SB A330-27-3136 or SB A340-27-4135, as applicable, the repetitive test in accordance with paragraph 1 of this directive are no longer required.</p> <p><b><u>3. Spare installation</u></b></p> <p>After 30 June 2008, no person may install a spare elevator servo-control unit on an aircraft unless it has been modified in accordance with instructions defined in Airbus SB A330-27-3136 or SB A340-27-4135, as applicable.</p>

<p>Ref. Publications:</p>	<p>AIRBUS All Operator Telex A330-27A3138 dated October 03, 2005.  AIRBUS All Operator Telex A340-27A4137 dated October 03, 2005.  AOT A330-27A3138 REV 01 dated October 03, 2005.  AOT A340-27A4137 REV 01 dated October 03, 2005.  AIRBUS Service Bulletin A330-27-3138 Revision 02  AIRBUS Service Bulletin A340-27-4137 Revision 02  AIRBUS Service Bulletin A330-27-3136  AIRBUS Service Bulletin A340-27-4135  or later approved revisions thereof.</p>
<p>Remarks :</p>	<ol style="list-style-type: none"> <li>1. If requested and appropriately substantiated the responsible EASA manager for the related product has the authority to accept Alternative Method of Compliance (AMOCs) for this AD.</li> <li>2. This AD was posted as PAD 06-250 on 16 November 2006 for consultation until 06 December 2007. No comments were received during the consultation period.</li> <li>3. Enquiries regarding this AD should be referred to the AD Focal Point - 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 AIRBUS SAS –Airworthiness Office - EAL  Fax: +33 5 61 93 45 80.</li> </ol>