	<b>AIRWORTHINESS DIRECTIVE</b> <b>No F-2005-171</b>	Distribution: <b>B</b>	Issue date: <b>November 09, 2005</b>	Page : <b>1/2</b>
Direction générale de l'aviation civile France  GSAC publication	This Airworthiness Directive is published by the DGAC on behalf of EASA, Airworthiness Authority of the State of Design for the affected product, part or appliance.		<i>Translation of « Consigne de Navigabilité » of same number. In case of difficulty, reference should be made to the French issue.</i>	
	<b>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.</b>			
Corresponding foreign Airworthiness Directive(s): <b>Not applicable</b>		Airworthiness Directive(s) replaced: <b>UF-2005-171</b>		
Person in charge of airworthiness: <b>AIRBUS SAS</b>		Type(s): <b>A330, A340-200/-300 aircraft</b>		
Type certificate(s) No. <b>EASA.A.004, EASA.A.015</b> TCDS No <b>EASA.A.004, EASA.A.015</b>				
ATA chapter: <b>27</b>	Subject: <b>Elevator servocontrols - Additional periodic test of the servo-loops</b>			

#### 1. EFFECTIVITY:

AIRBUS A330-200, A330-300, A340-200 and A340-300 aircraft, all certified models, all serial numbers.

#### 2. REASONS:

Each elevator is equipped with two servocontrols having three operating modes: Active mode, Damping mode, and Centering mode. In normal operation, each elevator is actuated by one servocontrol in Active mode, while the other is in Damping mode.

The mode change from Active to Damping is achieved by a Mode-Selector Spool Valve installed inside each servocontrol. The position of this spool valve is commanded by a rod which slides through a guide.


Some operators have reported cases of elevator servocontrol removals due to warning "FCTL ELEV SERVO FAULT". During the shop repairs, some of these servocontrols installed at the active position were found with the guide broken. The broken guides resulted in the inability for the affected servocontrols to change their operating mode.

The investigation has revealed that the root cause of the broken guides is a fatigue rupture induced by successive pressure cycles inside the servocontrol resulting in a progressive decrease of the tightening torque of the plug.

This situation, if not corrected, could result at worst in an unannounced loss of the elevator to the flight crew during take off roll phase, and in the extreme case reduce the controllability of the aircraft, which is potentially critical.

The aim of this Airworthiness Directive (AD) is to mandate an additional periodic test of the elevator servo-loops in order to check the servocontrols ability to change their operating mode.

**Note:** The additional periodic test set up by this AD does not supersede the existing CMR task which remains applicable.

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**3. MANDATORY ACTIONS AND COMPLIANCE TIMES:**

The following measures are rendered mandatory from the effective date of this AD:

- 3.1.** Within 200 flight hours (FH) at the latest following the effective date of this AD, perform the periodic test of the elevator servo-loops in accordance with instructions given in paragraph 4.2.1 of the AOT A330-27A3138 or A340-27A4137.
- 3.2.** Repeat the test defined in paragraph 3.1. of this AD at intervals not exceeding 140 FH since last check or eight days since last check, whichever occurs first.
- 3.3.** If during the initial or repetitive test the test failed, before next flight, apply the corrective actions and report to Airbus according to AOT A330-27A3138 or A340-27A4137.

**4 REFERENCE PUBLICATIONS:**

AIRBUS All Operator Telex A330-27A3138 dated October 03, 2005.  
AIRBUS All Operator Telex A340-27A4137 dated October 03, 2005.  
(Any further approved revision of these AOTs is acceptable).

**5. EFFECTIVE DATE:**

Upon receipt of the emergency AD issued on October 03, 2005.

**6. REMARKS:**

This AD has been the subject of an emergency diffusion on October 03, 2005.

For questions concerning the technical contents of this AD's requirements, contact:

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**7. APPROVAL:**

This AD is approved under EASA reference No 2005-6349 dated October 03, 2005.

**SUPERSEDED**