


<b>EASA</b>	<b>AIRWORTHINESS DIRECTIVE</b>	
	<p><b>AD No.: 2007-0273</b></p> <p><b>Date: 23 October 2007</b></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.		
<b>Type Approval Holder's Name :</b>	<b>Type/Model designation(s) :</b>	
AIRBUS SAS	A310, A300-600 and A300-600ST aircraft	
TCDS Number: France No. 145 and EASA A.014		
Foreign AD: Not applicable		
Supersedure: DGAC France AD F-2005-090R1, EASA Approval No. 2005-6042		
<b>ATA 57</b>	<b>Wings – Hamilton Sundstrand Ram Air Turbine (RAT) Swivel Coupling Yoke Fitting – Replacement</b>	
Manufacturer(s):	AIRBUS (formerly AIRBUS INDUSTRIE)	
Applicability:	AIRBUS A310, A300-600 and A300-600ST aircraft, all certified models and all serial numbers, equipped with Hamilton Sundstrand Ram Air Turbine (RAT), except for aircraft on which AIRBUS modification No 12986 or 19578 has been embodied in production, or which incorporated in service AIRBUS Service Bulletin (SB) A310-57-2086 or A300-57-6099 or A300-57-9017 at any issue.	
Reason:	<p>During a scheduled maintenance operation on an A310 aircraft, an operator reported that the RAT swivel coupling yoke fitting was found cracked. The first investigations performed along the corner radius of the lower flange of the part showed that the failure was associated with abnormal static loads which could lead, in case of total rupture of the yoke fitting, to the loss of the RAT, situation classified catastrophic in case of dual engine loss.</p> <p>DGAC France issued Airworthiness Directive (AD) F-2003-149 to render mandatory an inspection which consisted in verifying the structural integrity of the RAT swivel coupling yoke fitting. This inspection over the fleet revealed another RAT swivel coupling yoke fitting cracked. Further investigations conducted by the manufacturer showed that the origin of the static overload of the above cases was due to improper adjustment of the RAT ejection jack which could cause abnormal forces on the RAT swivel coupling yoke fitting.</p> <p>Consequently, new DGAC AD F-2005-090 was issued, to render mandatory on aircraft equipped with HAMILTON SUNDSTRAND RAT's, the inspection of the RAT swivel coupling yoke fitting and check of the adjustment of the RAT ejection jack. At</p>	

	<p>the same time, AD F-2003-149 was revised to render null and void the requirements of this AD for aircraft compliant with AD F-2005-090.</p> <p><u>New event :</u></p> <p>While performing AD F-2005-090, again another swivel coupling yoke fitting has been found cracked by an operator, and investigation results have concluded that cracks initiated into the lugs were due to a different root cause: instead of a static overload due to the misrigging of the RAT ejection jack, the crack were initiated by a stress corrosion phenomenon on the aluminium material.</p> <p>Replacement of the original aluminium part by a steel part is the final fix for both misrigging RAT ejection jack and stress corrosion phenomena. It is already rendered mandatory for aircraft equipped with a Dowty Rotol RAT as per AD F-2005-089 (EASA approval number 2005-4737). This new AD thus requires this same replacement for aircraft equipped with a Hamilton Sundstrand RAT.</p>
Effective Date:	06 November 2007
Compliance:	<p>Required as indicated, unless already accomplished:</p> <p>Before the aircraft reaches 8.5 years since first flight, or within 12 months from the effective date of this AD, whichever occurs later, replace the RAT swivel coupling yoke fitting in accordance with the instructions of SB A310-57-2086 Revision 1 or A300-57-6099 Revision 1 or A300-57-9017 Revision 1.</p>
Ref. Publications:	<p>AIRBUS Service Bulletin (SB) A310-57-2086 Revision 1;  SB A300-57-6099 Revision 1; and  SB A300-57-9017 Revision 1, or later approved revisions of these documents.</p>
Remarks :	<ol style="list-style-type: none"> <li>1. If requested and appropriately substantiated, EASA can accept Alternative Methods of Compliance for this AD.</li> <li>2. This AD was posted on 02 October 2007 as PAD 07-177 for consultation until 17 October 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 – EAW Airworthiness Office, telephone: + 33 5 61 93 36 96, facsimile: + 33 5 61 93 44 51.</li> </ol>