


<b>EASA</b>	<b>EMERGENCY AIRWORTHINESS DIRECTIVE</b>	
	<p><b>AD No.: 2008-0228-E</b></p> <p><b>Date: 26 December 2008</b></p> <p>Note: This Emergency 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 14(4) 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>AIRBUS</p>	<p><b>Type/Model Designation(s) :</b></p> <p>A318, A319, A320 and A321 aircraft</p>	
<p>TCDS Number : EASA.A.064</p>		
<p>Foreign AD : Not applicable</p>		
<p>Supersedure : This AD supersedes EASA AD 2008-0227-E issued on 23 December 2008.</p>		
<p><b>ATA 72</b></p>	<p><b>Engine – High Pressure Compressor (HPC) Stall Event– Inspection/Replacement</b></p>	
<p>Manufacturer(s):</p>	<p>AIRBUS (formerly AIRBUS INDUSTRIE)</p>	
<p>Applicability:</p>	<p>A318-111, A318-112, A319-111, A319-112, A319-115, A320-214, A320-215, A320-216, A321-111, A321-112, A321-211, A321-212, and A321-213 aircraft models, all serial numbers with CFM56-5B engines installed.</p>	
<p>Reason:</p>	<p>Several in service occurrences of HPC stalls have been reported by operators of Airbus aircraft fitted with CFM 56-5B engines since January 2007. Root cause is highly deteriorated HPCs. To improve operability and maintainability CFM released ECU software 5BQ in January 2007 which features 2 degrees additional Variable Stator Vanes closure in the low power region to increase the stall margin. This 5BQ software introduction has reduced the frequency of stalls, however since April 2008, 6 different engines with 5BQ software have experienced stalls at 3 different operators.</p> <p>On 15 December a CFM56-5B powered A321 experienced stalls on both engines during the same flight. This event was caused by a high level of HPC deterioration.</p> <p>Stalls on both engines during flight can cause a dual IFSD.</p> <p>AD 2008-0227-E has been issued, applicable to CFM56-5B engines, to require for aircraft with both engines indicating more than 80 degree Celsius (°C) of Exhaust Gas Temperature (EGT) margin deterioration, one of the engines to be replaced.</p> <p>Further to additional investigations done by Airbus, it has been determined necessary to mandate additional aircraft level requirements for aircraft with both engines indicating an EGT margin deterioration above 75°C.</p>	

	<p>This new EASA AD retains the requirements of AD 2008-0227-E which is superseded, introduces a repetitive requirement for determination of the EGT margin deterioration, and requires additional actions for aircraft with both engines indicating more than 75°C of EGT margin deterioration.</p>
<p>Effective Date:</p>	<p>27 December 2008</p>
<p>Required Action(s) and Compliance Time(s):</p>	<p>Required as indicated unless accomplished previously.</p> <p>Not later than 07 January 2009, determine the EGT margin deterioration of both engines and, depending on the results, carry out the applicable corrective actions in accordance with paragraphs 1 and 2 of this AD.</p> <p>Repeat the determination of EGT margin deterioration of both engines, at intervals not exceeding 800 Flight Cycles and, depending on the results, carry out the applicable corrective actions in accordance with paragraphs 1 and 2 of this AD.</p> <p><b>1. Maintenance requirements</b></p> <p>1.1 For aircraft with both engines indicating more than 80°C EGT margin deterioration, before next flight, remove one engine and replace it with an engine indicating less than 80°C EGT margin deterioration, in accordance with the instructions of CFM International Service Bulletin CFM56-5B S/B 72-0722.</p> <p>Prior to engine removal, perform a hot C bore scope inspection (BSI) of both engines per the current applicable A318/A319/A320/A321 AMM instructions for the HPC stages 1, 3, 6, and 9, adhering to the applicable A318/A319/A320/A321 AMM limits to determine which engine should be removed.</p> <p>Thereafter, if applicable, carry out the requirements of paragraph 1.2 of this AD.</p> <p>1.2 For aircraft with both engines indicating between 75°C of EGT margin deterioration and 80°C of EGT margin deterioration, and for aircraft with one engine indicating between 75°C and 80°C of EGT margin deterioration and the other engine indicating more than 80°C EGT margin deterioration, before next flight, perform a Compressor Stall Margin Test on both engines, in accordance with AMM Task 71-00-00-710-040.</p> <p><u>If the test is successful for both engines:</u></p> <ul style="list-style-type: none"> <li>- follow the operational requirements provided in paragraph 2 of this AD for every subsequent flight until the engine indicating the highest EGT margin deterioration is replaced by an engine indicating less than 75°C EGT margin deterioration.</li> <li>- within 500 Flight Hours from the determination of EGT margin deterioration, remove the engine indicating the highest EGT margin deterioration and replace it with an engine indicating less than 75°C EGT margin deterioration.</li> </ul> <p><u>If the test is not successful for one or both engines:</u></p> <ul style="list-style-type: none"> <li>- before next flight, replace the engine(s) that failed the test by an engine indicating less than 75°C of EGT margin deterioration.</li> </ul> <p><b>2. Operational requirements</b></p> <p>For aircraft with both engines indicating an EGT margin deterioration above 75°C, allowed for continued operation under the requirements of paragraph 1.2 of this AD, apply the following procedure for every subsequent flight, for the whole flight duration, except that ENG ANTI ICE...ON is not required during cruise:</p>

	<p>ENG 1 and 2 BLEEDS            ON</p> <p>PACK 1 and 2                    ON</p> <p>ENG 1 and 2 ANTI ICE        ON</p> <p><b>Note:</b> This procedure must be taken into account for performance calculation.</p>
Ref. Publications:	<p>CFM56-5B S/B 72-0722, dated 22 December 2008</p> <p>Airbus OIT/FOT 999.0109 /08 rev1, dated 26 December 2008</p> <p>A318/A319/A320/A321 AMM Task 71-00-00-710-040</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 EAD.</li> <li>2. The safety assessment has requested not to implement the full consultation process and an immediate publication and notification.</li> <li>3. Enquiries regarding this EAD 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 EAD, please contact CFM International, SA Customer Support Center E-mail : <a href="mailto:sncma.csc@sncma.com">sncma.csc@sncma.com</a> International Phone : +33 1 64 14 88 66 Fax : +33 1 64 14 88 66 or AIRBUS - Airworthiness Office - EASA E-mail : <a href="mailto:account.airworth-eas@airbus.com">account.airworth-eas@airbus.com</a></li> </ol>

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