

EASA	AIRWORTHINESS DIRECTIVE
	<p>AD No.: 2010-0191 Corrected: 08 October 2010</p> <p>Date: 27 September 2010</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>Type Approval Holder's Name :</p> <p>AIRBUS</p>	<p>Type/Model designation(s) :</p> <p>A330 and A340 aeroplanes</p>
<p>TCDS Number : EASA.A.004, EASA.A.015</p>	
<p>Foreign AD : Not applicable</p>	
<p>Supersedure : This AD supersedes EASA AD 2009-0153 dated 14 July 2009</p>	
ATA 27	Flight Controls – Flight Control Primary Computer (FCPC) – PRIM 3 Dispatch Restriction / Modification
Manufacturer(s):	Airbus (formerly Airbus Industrie)
Applicability:	<p>Airbus A330 aeroplanes, models -201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342 and -343, all manufacturer serial numbers on which Airbus modification 49144 (install electrical rudder) has been embodied in production, except those on which Airbus modification 58118 <u>and</u> Airbus modification 200667 have been embodied in production.</p> <p>Airbus A340 aeroplanes, models -311, -312, and -313, all manufacturer serial numbers on which Airbus modification 49144 has been embodied in production, except those on which Airbus modification 58118 <u>and</u> Airbus modification 200667 have been embodied in production.</p> <p>Airbus A340 aeroplanes, models -541, -542, -642, -643, all manufacturer serial numbers, except those on which Airbus modification 200667 has been embodied in production.</p>
Reason:	<p>During a Back-up Control Module (BCM) retrofit campaign in accordance with EASA AD 2006-0313 requirements, some BCMs have been found with loose gyrometer screws.</p> <p>The gyrometer is installed on the DELRIN plate by internal screws and the DELRIN plate is installed on BCM casing by external screws.</p>

	<p>Investigations done by the BCM manufacturer SAGEM have shown that the root cause of these events is a lack of design robustness of the BCM. When the aeroplane is in control back up configuration (considered to be an extremely remote case), an oscillation of the BCM output order may cause degradation of the BCM piloting laws, potentially leading to erratic motion of the rudder and possible subsequent impact on the Dutch Roll, which constitutes an unsafe condition.</p> <p>EASA AD 2008-0131 was issued to prohibit aeroplane dispatch with FCPC3 inoperative (from GO IF to NO GO) as an interim solution, limited to A330 and A340-300 fitted with electrical rudder.</p> <p>After EASA AD 2008-0131 issuance, several Pedal Feel Trim Units (PFTU) have been found with loose or broken screws during the accomplishment of maintenance tasks on A330 fitted with electrical rudder and A340-600. The loose or failed screws could lead to the loss of the coupling between the Rotary Variable Differential Transducer (RVDT) shaft and the PFTU shaft, and consequently to a potential rudder runaway when the BCM is activated.</p> <p>EASA AD 2009-0153 retained the requirements of EASA AD 2008-0131 and extended the applicability to A340-500/600 aeroplanes.</p> <p>This AD, which supersedes EASA AD 2009-0153 retaining its requirements, requires the installation of:</p> <ul style="list-style-type: none"> - a new BCM on A330 and A340-300 series aeroplanes fitted with electrical rudder, and - an improved PFTU on A330 and A340-300 series aeroplanes fitted with an electrical rudder and A340-500/-600 series aeroplanes, <p>which, once installed, eliminate the root cause of the unsafe condition and cancel the operational limitation.</p> <p>This AD has been republished to amend the AD applicability, where the models A330-223F and A330-243F were missing.</p> <p>The mistaken references to Airbus A340-200 series have also been removed.</p>
Effective Date:	11 October 2010
Required action(s) and Compliance Time(s):	<p>Required as indicated:</p> <p>(1) The following operational limitation is required as indicated from 28 July 2009 [effective date of EASA AD 2009-0153]:</p> <p>Dispatch restriction :</p> <p>Dispatch with the FCPC "PRIM 3" inoperative [item numbered 27-93-01-C) in the associated MMEL] is prohibited.</p> <p>Note: This operational limitation is covered by the following Temporary Revision (TR) of the Master Minimum Equipment List (MMEL):</p> <p>A330 TR N° 01-27/04Z Issue 02 for A330 aeroplanes post-mod 49144 (NO-GO),</p> <p>A340 TR N° 01-27/05Z Issue 02 for A340-300 aeroplanes post-mod 49144 (NO-GO) and for A340-500/-600 (NO-GO).</p> <p>Incorporation of the appropriate MMEL TR or inserting the above dispatch restriction or a copy of this AD into the Aeroplane Operations Manual (AOM) and strict adherence to above dispatch restriction by the flight crew is acceptable to comply with the requirements of this AD.</p>

	<p>(2) For A330 and A340-300 aeroplanes:</p> <p>Unless already accomplished, within 48 months after the effective date of this AD, modify:</p> <ul style="list-style-type: none"> - the BCM, in accordance with the instructions of Airbus Service Bulletin (SB) A330-27-3161 at original issue or SB A340-27-4160 at original issue, as applicable to aeroplane type, and - the PFTU, in accordance with the instructions of Airbus SB A330-27-3169 at original issue or SB A340-27-4167 at original issue, as applicable to aeroplane type. <p>Modification of both BCM and PFTU on an aeroplane as required in this paragraph cancels the operational limitation defined in paragraph (1) of this AD for that aeroplane.</p> <p>(3) For A340-500/600 aeroplanes:</p> <p>Unless already accomplished, within 48 months after the effective date of this AD, modify the PFTU, in accordance with the instructions of Airbus SB A340-27-5053 at original issue.</p> <p>Modification of the PFTU on an aeroplane as required in this paragraph cancels the operational limitation defined in paragraph (1) of this AD for that aeroplane.</p>
Ref. Publications:	<p>Airbus A330 MMEL TR 01-27/04Z Issue 02, Airbus A340 MMEL TR 01-27/05Z Issue 02.</p> <p>The use of any later EASA accepted revision of these MMEL TRs or of any general MMEL revision including this dispatch restriction is acceptable to comply with the requirements of this AD.</p> <p>Airbus SB A330-27-3161 at original issue, Airbus SB A330-27-3169 at original issue, Airbus SB A340-27-4160 at original issue, Airbus SB A340-27-4167 at original issue, Airbus SB A340-27-5053 at original issue.</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"> 1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 2. This AD was posted on 11 August 2010 as PAD 10-084 for consultation until 08 September 2010. No comments were received during the consultation period. 3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA. E-mail: ADs@easa.europa.eu. 4. For any questions concerning the technical content of the requirements in this AD, please contact: AIRBUS – Airworthiness Office – EAL; E-mail: airworthiness.A330-A340@airbus.com.