


EASA	AIRWORTHINESS DIRECTIVE
	<p>AD No.: 2012-0235</p> <p>Date: 07 November 2012</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 EU 748/2012, Part 21.A.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>Design Approval Holder's Name:</p> <p>AIRBUS</p>	<p>Type/Model designation(s):</p> <p>A340-500/-600 aeroplanes</p>
TCDS Number:	EASA.A.015
Foreign AD:	Not applicable
Supersedure:	This AD supersedes EASA Emergency AD 2012-0047-E dated 21 March 2012.
ATA 28	Fuel – Fuel Control & Monitoring Computer – Test / Modification
Manufacturer(s):	Airbus
Applicability:	Airbus A340-541, A340-542, A340-642 and A340-643 aeroplanes, all manufacturer serial numbers.
Reason:	<p>During research into Fuel Quantity Indicating Probe Shield Monitor warnings on another Airbus aeroplane type, it was identified that a shield monitor wire on A340-500/600 aeroplanes could become an open circuit within a fuel tank. This fault is undetected during flight as it is considered by design as Class 3 message (maintenance inspection).</p> <p>This condition, if not detected and corrected, in combination with a lightning strike, could lead to a potential spark gap ignition in the trim tank (wing and fuselage tanks are not affected), which could jeopardize the aeroplane's safe flight.</p> <p>To address this potential unsafe condition, EASA issued Emergency AD 2012-0047-E which required to interrogate Class 3 CMS (Centralised Maintenance System) fuel system messages via the MCDU (Multi Purpose Control & Display Unit) in order to identify any Hi-Z Shield Open fault(s), within the trim tank only and, depending on finding, to apply the applicable corrective actions.</p> <p>Since EASA AD 2012-0047-E was issued, a terminating action was developed which consists of introducing an energy limiting resistor embodied in the aeroplane wiring harness as close to the Fuel Data Concentrator as possible.</p> <p>For the reasons described above, this AD retains the requirements of EASA AD 2012-0047-E, which is superseded, and additionally requires modification of the Fuel Control & Monitoring Computer (FCMC) shield monitor lightning strike protection which constitutes terminating action for the required periodic testing.</p>

Effective Date:	21 November 2012
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <p>Re-statement of EASA AD 2012-0047-E:</p> <ol style="list-style-type: none"> (1) Within 14 days after 23 March 2012 [the effective date of EASA AD 2012-0047-E] and, thereafter, at intervals not to exceed 800 flight hours, perform a System BITE test of the FCMC for the presence of a failure message 'Hi-Z 1 SHIELD OPEN' within the trim tank in accordance with the instructions of Airbus All Operator Telex (AOT) A340-500/600-28A5057. (2) In addition to the tests as required by paragraph (1) of this AD, each time a maintenance action is performed within the trim tank, accomplish a System BITE test of the FCMC in accordance with the instructions of Airbus AOT A340-500/600-28A5057. <p>Note: Accomplishment of a System BITE test of the FCMC as required by paragraph (2) of this AD does not substitute the accomplishment of a System BITE test of the FCMC as required by paragraph (1) of this AD.</p> <ol style="list-style-type: none"> (3) If, during any of the tests as required by paragraph (1) or (2) of this AD, as applicable, a message 'Hi-Z 1 SHIELD OPEN' within the trim tank is present, before next flight, accomplish the corrective action as specified in paragraph (3.1) or (3.2) of this AD, as applicable, or modify the aeroplane as required by paragraph (4) of this AD: <ol style="list-style-type: none"> (3.1) Correct the fault linked to the Class 3 message and reapply the requirements of paragraph (1) of this AD with no message 'Hi-Z 1 SHIELD OPEN' within the trim tank in accordance with the instructions of Airbus AOT A340-500/600-28A5057. (3.2) Contact Airbus to obtain a temporary solution through an approved Technical Adaptation and accomplish those instructions accordingly (disconnection of the relevant Hi-Z Shield Monitor wire from the applicable Fuel Data Concentrator). <p>New requirements of this AD:</p> <ol style="list-style-type: none"> (4) Within 12 months after the effective date of this AD, modify the FCMC shield monitor lightning strike protection in accordance with the instructions of Airbus Service Bulletin (SB) A340-28-5055. (5) Modification of an aeroplane as required by paragraph (4) of this AD constitutes terminating action for the repetitive System BITE tests as required by paragraphs (1) and (2) of this AD for that aeroplane.
Ref. Publications:	<p>Airbus AOT A340-500/600-28A5057 dated 12 March 2012.</p> <p>Airbus SB A340-28-5055 original issue dated 04 July 2012.</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 04 October 2012 as PAD 12-127 for consultation until 01 November 2012. No comments were received during the consultation period. 3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: ADs@easa.europa.eu. 4. For any question concerning the technical content of the requirements in this AD, please contact: AIRBUS SAS – Airworthiness Office – EIAL. Fax: + 33 5 61 93 45 80 or + 33 5 61 93 44 51. E-mail: airworthiness.A330-A340@airbus.com.