



Airworthiness Directive

AD No.: 2016-0050R1

Issued: 20 October 2016

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 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 [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EC) 216/2008, Article 14(4) exemption].

Design Approval Holder's Name:

AIRBUS

Type/Model designation(s):

A380 aeroplanes

Effective Date: Revision 1: 20 October 2016
Original issue: 25 March 2016

TCDS Number(s): EASA.A.110

Foreign AD: Not applicable

Revision: This AD revises EASA AD 2016-0050 dated 11 March 2016, which superseded EASA AD 2015-0047 dated 16 March 2015, including its Correction dated 30 April 2015.

ATA 73 – Engine Fuel & Control – Engine Interface Power Management – Reset

Manufacturer(s):

Airbus

Applicability:

Airbus A380-841, A380-842 and A380-861 aeroplanes, all manufacturer serial numbers.

Reason:

Two events were reported of in-flight failure (loss of functionality) of an air conditioning pack, involving multiple Electronic Centralised Aircraft Monitoring warnings related to engine, thrust reverser, air pack and fuel systems. On the affected engines, the pack valves closed, the thrust reversers became inoperative and, possibly, the engine igniters were no longer electrically supplied. For both cases, the flight crew reset the Engine Interface Power Management (EIPM) units of the affected engine and as a result the normal situation was recovered.

This condition, if not corrected, could lead, in adverse conditions, to flame out of one or more engines due to the loss of the continuous ignition capability.

To address this potential unsafe condition, Airbus issued A380 Aircraft Flight Manual (AFM) Temporary Revision (TR) 163 issue 1.0 to provide instructions for EIPM in-flight reset and the



related operational procedures, and EASA issued AD 2015-0047 to require amendment of the applicable Airbus A380 AFM to incorporate that TR.

Since AD 2015-0047 was issued, additional investigation confirmed that the root cause of the EIPM failure was caused by a software misbehaviour due to a malfunctioning of the time counter. It was determined that the EIPM failure occurred after 24.8 days of continuous EIPM operation. This failure mode was reproduced by test and it was confirmed that a reset of the EIPM restores the unit to normal operation.

Consequently, EASA issued AD 2016-0050, retaining the requirements of EASA AD 2015-0047, which was superseded, and requiring repetitive resetting of each EIPM unit, which allows removal of the TR operational procedure from the AFM.

After that AD was issued, the EIPM manufacturer developed a software update that corrects the time counter deficiency. Consequently, Airbus developed production modification (mod) 76700, available for in-service application through Airbus Service Bulletin (SB) A380-73-8021.

For the reasons described above, this AD is revised to introduce a modification, installing EIPM equipped with software standard (STD) S13, Part Number (P/N) 271-124-013-021, as an optional terminating action for the repetitive EIPM resetting required by this AD.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

AFM Amendment:

- (1) Within 30 days after 23 March 2015 [the effective date of EASA AD 2015-0047] amend the applicable A 380 AFM to incorporate Airbus A380 AFM TR 163 issue 1.0, inform all flight crews, and, thereafter, operate the aeroplane accordingly.

Repetitive EIPM Resets:

- (2) Within 30 days after 25 March 2016 [the effective date of the original issue of this AD], or since the aeroplane date of manufacture (see Note 1 of this AD), whichever occurs later, and, thereafter, at intervals not to exceed 10 days, reset each EIPM.

This action can be accomplished in accordance with the instructions of the applicable A380 Aircraft Maintenance Manual (AMM), task 73-25-34-860-801, or task 73-25-34-860-802, as applicable to aeroplane model.

When the aeroplane is not operated due to parking, mooring, storage or accomplishment of a maintenance action, the reset of the EIPM can be deferred until before next flight, upon return to service of that aeroplane.

Note 1: For the purpose of this AD, the date of aeroplane manufacture is the date of transfer of title, which is referenced in Airbus documentation at the time of first delivery to an operator.



Removal of AFM Amendment:

- (3) After the first reset of each EIPM on an aeroplane, as required by paragraph (2) of this AD, the A380 AFM TR 163 issue 1.0 as required by paragraph (1) of this AD is no longer required for operation and can be removed from the affected AFM of that aeroplane.

Optional Terminating Action:

- (4) Modification of an aeroplane in accordance with the instructions of Airbus SB A380-73-8021 (replacement of each EIPM equipped with software STD S12, P/N 271-124-012-021, with an EIPM equipped with software STD S13, P/N 271-124-013-021) constitutes terminating action for the repetitive resetting of each EIPM as required by paragraph (2) of this AD for that aeroplane.

Conditional Exemption:

- (5) An aeroplane on which Airbus mod 76700 has been embodied in production is not affected by the requirements of paragraphs (1) and (2) of this AD, provided that it is determined that, since the aeroplane date of manufacture (see Note 1 of this AD), EIPM with software STD S12, P/N 271-124-012-021, has not been installed on that aeroplane.

Parts Installation:

- (6) From the effective date of this AD, installation on an aeroplane of an EIPM equipped with software STD S12, P/N 271-124-012-021, is allowed, provided that following installation, all EIPMs on that aeroplane are repetitively reset, as required by paragraph (2) of this AD.

Ref. Publications:

Airbus SB A380-73-8021 original issue, dated 29 September 2016.

The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.

Airbus AMM task 73-25-34-860-801.

Airbus AMM task 73-25-34-860-802.

Airbus A380 AFM TR 163 issue 1.0 dated 23 February 2015.

Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. The results of the safety assessment have indicated the need for immediate publication and notification, without the full consultation process.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.



4. For any question concerning the technical content of the requirements in this AD, please contact: AIRBUS SAS - EIANA (Airworthiness Office), Telephone: +33 562 110 253, Fax: +33 562 110 307, E-mail: account.airworth-A380@airbus.com.

