



Airworthiness Directive

AD No.: 2021-0284

Issued: 17 December 2021

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 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 (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name:

AIRBUS

Type/Model designation(s):

A380 aeroplanes

Effective Date: 31 December 2021

TCDS Number(s): EASA.A.110

Foreign AD: Not applicable

Supersedure: None

ATA 73 – Engine Fuel & Control – Electronic Engine Control Software – Update

Manufacturer(s):

Airbus

Applicability:

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

Definitions:

For the purpose of this AD, the following definition applies:

Affected SW: Electronic Engine Control (EEC) software (SW), having Part Number (P/N) RRY23-0123-380A (EEC standard 12.3), or previous P/N and SW standard.

Serviceable SW: EEC SW, having P/N RRY24-0124-380A (EEC standard 12.4), or later approved P/N and SW standard.

The SB: Airbus Service Bulletin (SB) A380-73-8024, which includes reference to Rolls-Royce Trent 900 SB RB211.73-K511.

Groups: Group 1 aeroplanes are those that have an affected SW installed.



Group 2 aeroplanes are those that do not have an affected SW installed. An aeroplane on which Airbus modification (mod) 78620 has been embodied in production is a Group 2 aeroplane, provided that no affected SW has been installed on that aeroplane since its date of manufacture.

Aeroplane date of manufacture: The date of transfer of title (ownership) which is referenced in Airbus documentation at the time of first delivery to an operator.

Reason:

Two occurrences have been reported of loss of engine thrust control (LOTCT), each one affecting a different engine installed on the same aeroplane. The two events did not occur during the same flight. Investigation and analysis of the events concluded that these were due to freezing of the P30 sense line, within the line inlet on the EEC unit.

This condition, if not corrected, could lead to uncommanded thrust reduction and possible multiple engine LOTCT, resulting in reduced control of the aeroplane.

To address this potential unsafe condition, Rolls-Royce developed mod 73-K278 (required by EASA AD 2021-0129 for Trent 900 engines), introducing a new standard of P30 sense line. To provide further mitigation of safety risk at aeroplane level, Airbus and Rolls-Royce developed, respectively, mod 78620 and mod 73-K511, introducing EEC SW standard 12.4, and issued the SB to provide instructions for in-service modification.

For the reason described above, this AD requires installation of the new EEC SW standard.

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

Required as indicated, unless accomplished previously:

Modification:

- (1) For Group 1 aeroplanes: Within 12 months after the effective date of this AD, install serviceable SW on the aeroplane in accordance with the instructions of the SB, or replace each EEC unit on the aeroplane with an EEC unit that contains serviceable SW.

Related AD:

- (2) After modification of an aeroplane as required by paragraph (1) of this AD, the engines of that aeroplane remain compliant with the requirements of EASA AD 2019-0113.

SW Installation Prohibition:

- (3) Do not install affected SW on any aeroplane, as required by paragraph (3.1) or (3.2) of this AD, as applicable, except as specified in paragraph (4) of this AD.
 - (3.1) For Group 1 aeroplanes: After modification of the aeroplane as required by paragraph (1) of this AD.
 - (3.2) For Group 2 aeroplanes: From the effective date of this AD.



Engine / EEC installation:

- (4) For Group 1 and Group 2 aeroplanes: After expiry of the compliance time of this AD, it is allowed to install an engine or EEC unit with affected SW on an aeroplane, provided that, before first operation after that installation, the engine or EEC, as applicable, is modified by installing serviceable SW, as defined in this AD, in accordance with the instructions of the SB.

Ref. Publications:

Airbus SB A380-73-8024 original issue dated 22 September 2021.

Rolls-Royce Trent 900 SB RB.211-73-K511 original issue dated 10 September 2021.

The use of later approved revisions of the above-mentioned documents is acceptable for compliance with the requirements of this AD.

Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. This AD was posted on 13 October 2021 as PAD 21-145 and republished on 27 October 2021 as PAD 21-145R1 for consultation until 10 November 2021. The Comment Response Document can be found in the [EASA Safety Publications Tool](#), in the compressed (zipped) file attached to the record for this AD.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the [EU aviation safety reporting system](#). This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.
5. For any question concerning the technical content of the requirements in this AD, please contact: Airbus – EIANA (Airworthiness Office), Telephone: +33 562 110 253, Fax: +33 562 110 307, E-mail: account.airworth-A380@airbus.com.

