



Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 21-145R1

Issued: 27 October 2021

Note: This Proposed 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.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.

All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

Design Approval Holder's Name:

AIRBUS

Type/Model designation(s):

A380 aeroplanes

Effective Date: [TBD standard: 14 days after AD issue date]

TCDS Number(s): EASA.A.110

Foreign AD: Not applicable

Supersedure: None

ATA 73 – Engine Fuel & Control – Full Authority Digital 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: Full Authority Digital Engine Control (FADEC) software (SW), having Part Number (P/N) RRY23-0123-380A (FADEC standard 12.3) or previous versions.

Serviceable SW: FADEC SW, having P/N RRY24-0124-380A (FADEC 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 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:

Several occurrences have been reported of experiencing loss of thrust control (LOTC) on more than one engine on an aeroplane. Investigation and analysis of the events concluded that these were due to freezing of the P30 sense line, within the line inlet on the engine electronic control (EEC, or FADEC) unit.

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

To address this potential unsafe condition, Airbus and Rolls-Royce developed a modification (Airbus mod 78620, Rolls-Royce Mod. 73-K511), introducing a software (SW) update, EEC SW standard 12.4, and issued the SB to provide in-service modification instructions.

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

After the issuance of EASA PAD 21-145, it was determined that A380-861 aeroplanes are not affected by the unsafe condition. In addition, SW installation prohibition paragraph for affected SW was missing. This PAD is revised accordingly.

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

Required as indicated, unless accomplished previously:

Modification:

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

SW Installation Prohibition:

- (2) Do not install affected SW on any aeroplane, as required by paragraph (2.1) or (2.2) of this AD, as applicable.

(2.1) For Group 1 aeroplanes: After modification of the aeroplane as required by paragraph (1) of this AD.

(2.2) For Group 2 aeroplanes: From the effective date of this AD.

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. This Proposed AD will be closed for consultation on 10 November 2021.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this PAD, and which may occur, or have occurred on a product, part or appliance not affected by this PAD, 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 PAD 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.
4. For any question concerning the technical content of the requirements in this PAD, please contact: Airbus – EIANA (Airworthiness Office), Telephone: +33 562 110 253, Fax: +33 562 110 307, E-mail: account.airworth-A380@airbus.com.

