Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 21-076

Issued: 21 May 2021

Note: This Proposed Airworthiness Directive (PAD) 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): A330 aeroplanes

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

TCDS Number(s): EASA.A.004

Foreign AD: Not applicable

Supersedure: None

ATA 73 – Engine Fuel & Control – Engine Electronic Control Software – Modification / Replacement

Manufacturer(s):
Airbus

Applicability:
Airbus A330-841 and A330-941 aeroplanes, all manufacturer serial numbers (MSN).

Definitions:
For the purpose of this AD, the following definitions apply:

Affected EEC SW: Engine Electronic Control (EEC) software (SW), having part number (P/N) RRY48T7K0010008 (EEC standard 3.0.1), or P/N RRY45T7K0020006 (EEC standard FCS2.1).

Serviceable EEC SW: EEC SW standard 3.1, having P/N RRY48T7K0000009, or later SW standard and P/N.

The SB: Airbus Service Bulletin (SB) A330-73-3062, which refers to the Rolls-Royce SB, as defined in this AD.
The additional SB: Airbus SB A330-73-3061.

The Rolls-Royce SB: Rolls-Royce SB TRENT 1000 73-K517.

Groups: Group 1 aeroplanes are those that have an affected EEC SW installed. Group 2 aeroplanes are those that have only serviceable EEC SW installed. An aeroplane on which Airbus modification (mod) 209142 (EEC standard 3.1) has been embodied in production is a Group 2 aeroplane, provided the aeroplane remains in that configuration.

Reason: During A330-941 aeroplane re-light flight tests in very cold temperature conditions, an electronic centralised aircraft monitoring (ECAM) warning “ENG OIL LO PR” appeared twice. It was later determined that this warning should not have appeared in these conditions. This ECAM warning would prompt the crew to shut down the affected engine.

This condition, if not corrected, could lead to dual engine in-flight shut-down, resulting in reduced control of the aeroplane.

To address this potential unsafe condition, Rolls-Royce developed new EEC full-authority digital engine control SW (EEC SW) for the affected Trent 7000 engines and published the Rolls-Royce SB. This SW is embodied at aeroplane level on the production line through Airbus mod 209142, and Airbus published the SB, as defined in this AD, to provide in-service modification instructions.

For the reasons described above, this AD requires installation of serviceable EEC SW. This AD also allows intermix / interchangeability of EEC SW until a certain period and, after that period, prohibits (re)installation of affected EEC SW.

Required Action(s) and Compliance Time(s):
Required as indicated, unless accomplished previously:

Modification:
(1) Within 24 months after the effective date of this AD, modify the aeroplane by installing on each engine a serviceable EEC SW, as defined in this AD, in accordance with the instructions of the SB.

Replacement:
(2) Replacement on both engines of an aeroplane containing affected EEC SW with engines containing serviceable EEC SW is an acceptable method to comply with the requirements of paragraph (1) of this AD for that aeroplane.

Concurrent requirements:
(3) Prior to, or concurrently with, the modification as required by paragraph (1), or as specified in paragraph (2) of this AD, as applicable, modify the aeroplane in accordance with the instructions of the additional SB.
**EEC SW Intermix / Interchangeability:**

(4) For Group 1 and Group 2 aeroplanes: From the effective date of this AD, until [insert date: 24 months after the effective date of this AD], it is not allowed to intermix P/N RRY45T7K0020006 (EEC standard FCS2.1) with P/N RRY48T7K0000009 (EEC SW standard 3.1) on any aeroplane.

(5) For Group 1 and Group 2 aeroplanes: From the effective date of this AD, until [insert date: 24 months after the effective date of this AD] intermix between P/N RRY48T7K0010008 (EEC standard 3.0.1) and P/N RRY48T7K0000009 (EEC SW standard 3.1) is allowed on any aeroplane, provided that it is accomplished in accordance with Airbus approved instructions.

**EEC SW Installation Prohibition:**

(6) For Group 1 and Group 2 aeroplanes: From [insert date: 24 months after the effective date of this AD], do not install on any aeroplane an engine with affected EEC SW installed, or do not upload any affected EEC SW on any aeroplane/engine.

**Ref. Publications:**


Rolls-Royce SB TRENT 1000 73-K517 original issue dated 09 March 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 18 June 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 – IIAL (Airworthiness Office), E-mail: airworthiness.A330-A340@airbus.com.