Airworthiness Directive

AD No.: 2021-0198

Issued: 27 August 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):

A330 aeroplanes

Effective Date: 10 September 2021

TCDS Number(s): EASA.A.004

Foreign AD: Not applicable

Supersedure: None

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

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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 approved 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.

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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 10 September 2021 [the effective date of this AD], modify the aeroplane by installing serviceable EEC SW, as defined in this AD, on each engine in accordance with the instructions of the SB.

Replacement:

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

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

Concurrent Requirements:

(4) Prior to, or concurrently with, the modification as required by paragraph (1), or as specified in paragraph (2) or (3) of this AD, as applicable, modify the aeroplane in accordance with the instructions of the additional SB.

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EEC SW Intermix / Interchangeability:

(5) For Group 1 and Group 2 aeroplanes: From 10 September 2021 [the effective date of this AD] until 09 September 2023, it is not allowed to intermix P/N RRY45T7K0020006 (EEC SW standard FCS2.1) with P/N RRY48T7K0000009 (EEC SW standard 3.1) on any aeroplane.

(6) For Group 1 and Group 2 aeroplanes: From 10 September 2021 [the effective date of this AD] until 09 September 2023, intermix between P/N RRY48T7K0010008 (EEC SW 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:

(7) For Group 1 and Group 2 aeroplanes: From 10 September 2023, do not operate any aeroplane having an engine with affected EEC SW installed.

Ref. Publications:

Airbus SB A330-73-3061 original issue dated 12 March 2020.

Airbus SB A330-73-3062 original issue dated 31 March 2021.

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. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.

2. This AD was posted on 21 May 2021 as PAD 21-076 for consultation until 18 June 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 – IIAL (Airworthiness Office), E-mail: airworthiness.A330-A340@airbus.com.

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