



適航指令發布單

Airworthiness Directive Issuance Form

民航局 AD 編號 AD number	CAA-2022-12-012	發布日期 Date issued	2022/12/26
適用之航空產品 Applied to (models, serial numbers or part numbers, as applicable)	Airbus A330-841 and A330-941 aeroplanes, all manufacturer serial numbers.		
主旨摘要 Subject	Engine Fuel & Control - Engine Electronic Control Software - Modification / Replacement		
<div style="text-align: center;">民航局 CAA</div> <input type="checkbox"/> 本國產品 Native product <input type="checkbox"/> 其他個案 Other	<div style="text-align: center;">設計國民航主管機構 Original Authority</div> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> FAA <input checked="" type="checkbox"/> EASA <input type="checkbox"/> Brazil <input type="checkbox"/> Transport Canada Civil Aviation <input type="checkbox"/> DGAC </div> <div style="width: 50%;"> <input type="checkbox"/> Germany LBA <input type="checkbox"/> CAA-NL <input type="checkbox"/> UK CAA <input type="checkbox"/> Japan CAB <input type="checkbox"/> CAA of Israel <input type="checkbox"/> Other _____ </div> </div>		
	設計國 AD 編號 Original AD number	2022-0253	
	1. 直接採用原 AD 之內容?(Is the original AD directly adopted?) <input checked="" type="checkbox"/> 是(Yes) <input type="checkbox"/> 否(No) _ a. 生效日期另訂為(Re-specify the effective date as) : _____ b. 執行時限另訂為(Re-specify the compliance time or period as) : _____ 2. 使用人是否需要將 AD 執行結果向民航局提出報告?(Do Users need to report the status of compliance to the CAA?) <input type="checkbox"/> 是(Yes) <input checked="" type="checkbox"/> 否(No)		
備註 Note	This AD supersedes EASA AD 2021-0198(CAA-2021-08-009) dated 27 August 2021.		
註： 1. AD 內容後附。 2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。 3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6330 / 6332, Fax：(02)2545-8464, e-mail： adcaa@mail.caa.gov.tw Note： 1. The AD text is enclosed. 2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval. 3. For further information, please contact Civil Aeronautics Administration on Tel：(02)2349-6330 / 6332, Fax：(02)2545-8464, e-mail： adcaa@mail.caa.gov.tw			



Airworthiness Directive

AD No.: 2022-0253

Issued: 19 December 2022

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, or Annex Vb Part ML.A.301, as applicable, 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 Annex Vb Part ML.A.303, as applicable] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name:

AIRBUS S.A.S.

Type/Model designation(s):

A330 aeroplanes

Effective Date: 02 January 2023

TCDS Numbers: EASA.A.004

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2021-0198 dated 27 August 2021.

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.

Definitions:

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

Affected EEC SW1: 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), or previous standard.

Affected EEC SW2: EEC SW, having P/N RRY48T7K0000009 (EEC standard 3.1).

Affected EEC SW: EEC SW, either affected EEC SW1 or affected EEC SW2.

Serviceable EEC SW: EEC SW standard 5.3, having P/N RRY46T7K0020014, or later approved SW standard and P/N.



Affected EEC unit: Any EEC unit containing affected EEC SW.

Affected engine: Any engine containing affected EEC SW.

The Airbus SB: Airbus Service Bulletin (SB) A330-73-3065, which refers to the Rolls-Royce SB, as defined in this AD.

The Rolls-Royce SB: Rolls-Royce SB TRENT 1000 73-K766.

Reason:

It has been determined that engine crystal icing protection could be (temporarily) lost if an erroneous total pressure value is provided by aeroplane systems.

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 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 209655, and Airbus published the Airbus SB, as defined in this AD, to provide in-service modification instructions.

To address a different unsafe condition, EASA issued AD 2021-0198, requiring installation of affected EEC SW2, as defined in this AD, or later approved SW standard and P/N.

For the reasons described above, this AD partially retains the requirements of EASA AD 2021-0198, which is superseded, and requires installation of serviceable EEC SW, by requiring operational limitations. This AD also provides additional requirements for EEC SW intermix.

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

Required as indicated, unless accomplished previously:

EEC SW Intermix / Interchangeability:

- (1) From 10 September 2021 [the effective date of EASA AD 2021-0198], do not intermix P/N RRY45T7K0020006 (EEC SW standard FCS2.1) with P/N RRY48T7K0000009 (EEC SW standard 3.1) on any aeroplane.
- (2) From the effective date of this AD, do not intermix P/N RRY45T7K0020006 (EEC SW standard FCS2.1) or P/N RRY48T7K0010008 (EEC SW standard 3.0.1) with P/N RRY46T7K0020014 (EEC SW standard 5.3) on any aeroplane.
- (3) From 10 September 2021 [the effective date of EASA AD 2021-0198], 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 instructions approved by Airbus DOA.



- (4) From the effective date of this AD, intermix between P/N RRY48T7K0000009 (EEC SW standard 3.1) and P/N RRY46T7K0020014 (EEC SW standard 5.3) is allowed on any aeroplane, provided that it is accomplished in accordance with instructions approved by Airbus DOA.

Partial Restatement of the Requirements of EASA AD 2021-0198:

- (5) From 10 September 2023, do not operate any aeroplane having an engine with affected EEC SW1 installed.

Operational Limitations:

- (6) Starting from 2 years after the effective date of this AD, do not operate any aeroplane having an engine with affected EEC SW installed (see Note 1 of this AD).

Note 1: An aeroplane having Airbus modification 209655 embodied in production, and on which no affected EEC SW, no affected EEC unit and no affected engine has been installed in service, is equipped with serviceable EEC SW.

- (7) Modification of an aeroplane by installing serviceable EEC SW, as defined in this AD, on each engine in accordance with the instructions of the Airbus SB, is an acceptable method to comply with the requirements of paragraph (6) of this AD for that aeroplane, provided, after that modification, no affected EEC SW, no affected EEC unit and no affected engine is re-installed on that aeroplane.

Ref. Publications:

Airbus SB A330-73-3065 original issue dated 17 August 2022.

Rolls-Royce SB TRENT 1000 73-K766 original issue dated 29 July 2022.

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 25 October 2022 as PAD 22-143 for consultation until 22 November 2022. 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 – 1IAL (Airworthiness Office), E-mail: airworthiness.A330-A340@airbus.com.

