

# Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 25-080

Issued: 28 May 2025

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:** 

Type/Model designation(s):

A330 and A340 aeroplanes

Effective Date:	[TBD - standard: 14 days after AD issue date]
TCDS Number(s):	EASA.A.004, EASA.A.015
Foreign AD:	Not applicable
Supersedure:	This AD supersedes EASA AD 2024-0016 dated 11 January 2024.

# ATA 27 – Flight Controls – Trimmable Horizontal Stabilizer Actuator / Electric Load Sensing Device – Modification

# Manufacturer(s):

AIRBUS S.A.S.

Airbus, formerly Airbus Industrie

## **Applicability:**

Airbus A330-201, A330-202, A330-203, A330-223, A330-223F, A330-243, A330-243F, A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342, A330-343, and A330-941 aeroplanes, all manufacturer serial numbers (MSN) up to MSN 1919 inclusive, except MSN 1915; and

Airbus A340-211, A340-212, A340-213, A340-311, A340-312 and A340-313 aeroplanes, all MSN.

## **Definitions:**

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

**The SB1a**: Airbus Service Bulletin (SB) A330-27-3237 and SB A340-27-4213, as applicable, both at original issue, and Airbus Repair and Design Approval Form (RDAF) 80874366/013/2021#A for A330 aeroplanes or RDAF 80874366/022/2021#A for A340 aeroplanes, as applicable (for aeroplanes to which the RDAF applies).



**The SB1b**: Airbus Service Bulletin (SB) A330-27-3237, revision (rev.) 01 or rev.02, and SB A340-27-4213 rev. 01, as applicable.

**The SB1c**: Airbus Service Bulletin (SB) A330-27-3237 rev. 04 and SB A340-27-4213 rev. 03, as applicable.

The SB2: Airbus SB A330-27-3234 and SB A340-27-4214, as applicable.

**Groups**: Group 1 aeroplanes are all MSN up to MSN 1789 inclusive. Group 2 aeroplanes are MSN 1790 to 1919 inclusive.

#### **Reason:**

The upper and lower attachments of the Trimmable Horizontal Stabilizer Actuator (THSA) have a primary load path (PLP) and a secondary load path (SLP), the latter of which is only engaged in case of PLP failure. When the SLP is engaged, the THSA should stall, and an indication should be provided to the flight crew, activated by position monitoring. It has been demonstrated by tests that, when the upper SLP is engaged, the unit might not stall, with consequently no indication of SLP engagement.

This condition, if not corrected, could lead to damage on the upper THSA SLP attachment, with consequent mechanical disconnection of the THSA, possibly resulting in loss of control of the aeroplane.

To initially address this potential unsafe condition, Airbus developed a method to inspect the upper THSA attachments parts and the PLP and SLP fuselage attachment points, and EASA issued AD 2017-0044 to require those repetitive inspections. That AD was later cancelled, as the requirements were transferred into the applicable Airworthiness Limitation Sections (ALS) for the affected type designs, for which EASA published AD 2019-0047 and AD 2019-0048.

After those ADs were issued, Airbus designed an Electric Load Sensing Device (ELSD), to detect the engagement on the SLP, even in absence of a THSA stall. Consequently, Airbus published the SB1a, providing instructions for installation of the ELSD wiring provisions, and the SB2, providing instructions for ELSD installation and activation, and EASA issued AD 2022-0039 to require modification of the THSA installation, implementing ELSD wiring provision and installing and activating the ELSD.

After that AD was issued, it has been determined that the SB1a cannot be accomplished on certain aeroplanes, and Airbus initially issued several adaptions to provide additional instructions and corrections, and eventually the SB1b. Consequently, EASA issued AD 2024-0016, retaining the requirements of EASA AD 2022-0039, which was superseded, but referring to the SB1b, and requiring additional work for certain aeroplanes.

Since that AD was issued, Airbus, following the determination that additional work is required on certain aeroplanes after the accomplishment of the modification in accordance with the instructions of the SB1b, issued the SB1c.



For the reasons described above, this AD retains the requirements of EASA AD 2024-0016, which is superseded, but referring to the SB1c, and requiring additional work for certain aeroplanes.

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

Required as indicated, by this AD, unless the action(s) required by this AD have been already accomplished:

# Modification(s):

Within 48 months after 22 March 2022 [the effective date of EASA AD 2022-0039], accomplish the following:

- (1) For Group 1 aeroplanes: Install the wiring for the ELSD in accordance with the instructions of the SB1c.
- (2) For Group 1 and Group 2 aeroplanes: Install and activate the ELSD in accordance with the instructions of the SB2.

# Additional Work 1:

(3) For Group 1 aeroplanes that, before 25 January 2024 [the effective date of EASA AD 2024-0016], have been modified in accordance with the instructions of the SB1a only (see Note 1 of this AD): Within 48 months after 22 March 2022 [the effective date of EASA AD 2022-0039], accomplish the additional work as identified in, and in accordance with the instruction of, the SB1c, as applicable.

Note 1: For aeroplanes which have been modified in accordance with the instructions of the SB1a AND the additional work as identified in the SB1b, refer to paragraph (4) of this AD.

## Additional Work 2:

(4) For Group 1 aeroplanes that, before the effective date of this AD, have been modified in accordance with the instructions of SB1a AND the additional work as identified in the SB1b, or in accordance with the instructions of the SB1b: Within 15 months after the effective date of this AD, accomplish the second additional work as identified in, and in accordance with the instruction of, the SB1c, as applicable.

## **Ref. Publications:**

Airbus SB A330-27-3234 original issue dated 05 March 2019 and rev. 01 dated 12 October 2020.

Airbus SB A330-27-3237 original issue dated 12 October 2020, rev. 01 dated 20 June 2023, rev. 02 dated 09 February 2024, rev. 03 dated 22 October 2024 and rev. 04 dated 31 March 2025.

Airbus SB A340-27-4213 original issue dated 12 October 2020, rev. 01 dated 20 June 2023, rev. 02 dated 22 October 2024 and rev. 03 dated 04 April 2025.

Airbus SB A340-27-4214 original issue dated 12 October 2020.

Airbus RDAF 80874366/013/2021#A dated 12 February 2021.



Airbus RDAF 80874366/022/2021#A dated 19 April 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 25 June 2025.
- 2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: <u>ADs@easa.europa.eu</u>.
- 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 <u>EU aviation safety reporting system</u>. 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 1IAL (Airworthiness Office), E-mail: <u>airworthiness.A330-A340@airbus.com</u>.

