



Airworthiness Directive

AD No.: 2020-0077

Issued: 31 March 2020

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 and A340 aeroplanes

Effective Date: 14 April 2020

TCDS Number(s): EASA.A.004 and EASA.A.015

Foreign AD: Not applicable

Supersedure: None

ATA 27 – Flight Controls – Stop Rudder Input Warning Device – Installation / Activation

Manufacturer(s):

Airbus, formerly Airbus Industrie

Applicability:

Airbus A330-202, A330-203, A330-223, A330-243, A330-301, A330-321, A330-322, A330-323, A330-341, A330-342, A330-343 aeroplanes, all manufacturer serial numbers (MSN), except those that have embodied Airbus modification (mod) 49144 (electrical rudder control) and,

Airbus A340-211, A340-212, A340-213, A340-311, A340-312 and A340-313 aeroplanes, all MSN, except those that have embodied Airbus mod 49144.

Definitions:

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

The SB: Airbus Service Bulletin (SB) A330-27-3232, or SB A340-27-4211, as applicable.

Reason:

Further to in-service incidents, which occurred on other Airbus type aeroplanes in specific and severe flight conditions, design reviews were conducted following safety recommendations related to those occurrences, and it has been determined that the allowable load limits on the vertical tail plane could be reached and possibly exceeded in case of multiple rudder doublets inputs.



This condition, if not corrected, in case of multiple rudder doublets inputs, could lead to a loss of control of the aeroplane.

As precautionary measures for aeroplanes designed with mechanical rudder control (pre Airbus mod 49144), Airbus developed modifications within the Flight Control Primary Computer (FCPC) and the Flight Control Data Concentrator (FCDC) to activate a conditional aural warning within the Flight Warning Computer (FWC) to further protect against pilot induced multiple rudder doublets.

For the reasons described above, this AD requires modification of the aeroplane by upgrading the FCDC, associated FCPC, and FWC as concurrent requirements, and activation of the Stop Rudder Input aural Warning (SRIW) device. After modification of the aeroplane, this AD prohibits installation of earlier software or hardware FCPC, FCDC and FWC standards.

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

Required as indicated, unless accomplished previously:

Modification / Replacement / Activation:

- (1) Within 48 months after the effective date of this AD, modify or replace each FCDC by installing software standard L26/M25/P16 (or later approved standard) and activate the SRIW device in accordance with the instructions of the SB.

Concurrent Requirements:

- (2) Prior to, or concurrent with, the modification of an aeroplane as required by paragraph (1) of this AD, install the FCPC, and FWC standards as specified in Table 1 of this AD on that aeroplane, in accordance with the Airbus SB listed in Table 1 of this AD.

Table 1 – Standard Updates pre-required for FCDC Upgrade

Computer	Quantity	Standard to be installed (or later approved standards)	Applicable SB
FCPC	3	A330 aeroplanes: P15A/M24A with 2K2 hardware	SB A330-27-3236 <u>and</u> SB A330-27-3222 or SB A330-27-3235
		A340 aeroplanes: L25 with 2K2 hardware	SB A340-27-4208 or SB A340-27-4212
FWC	2	A330 aeroplanes: T9	SB A330-31-3265
		A340 aeroplanes: L15	SB A340-31-4190

Part Installation Prohibition:

- (3) After modification of an aeroplane as required by paragraph (1) of this AD, do not install on that aeroplane any software or hardware of a version earlier than the one listed in Table 1 of this AD.

Ref. Publications:

Airbus SB A330-27-3222 original issue dated 16 February 2017 or Revision 1 dated 9 January 2019.

Airbus SB A330-27-3232 original issue dated 02 October 2019.



Airbus SB A330-27-3235 original issue dated 21 May 2019.
Airbus SB A330-27-3236 original issue dated 04 October 2019.

Airbus SB A330-31-3265 original issue dated 26 September 2019.

Airbus SB A340-27-4211 original issue dated 15 July 2019.
Airbus SB A340-27-4208 original issue dated 27 November 2018, or Revision 1 dated 16 July 2019.
Airbus SB A340-27-4212 original issue dated 18 July 2019.
Airbus SB A340-31-4190 original issue dated 21 June 2019.

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 15 October 2019 as PAD 19-190, republished on 18 October 2019 as PAD 19-190R1 for consultation until 12 November 2019 and republished on 28 January 2020 as PAD 190-190R2 for consultation until 11 February 2020. All Comment Response Documents 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 Programming and Continued Airworthiness 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](#).
5. For any question concerning the technical content of the requirements in this AD, please contact: AIRBUS A330/A340 Airworthiness Office, E-mail: airworthiness.A330-A340@airbus.com.

