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# AD No.: 2013-0023 Date: 01 February 2013 Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This AD is issued in accordance with EU 748/2012, Part 21.A.3B. In accordance with EC 2042/2003 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 [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].

	Il Holder's Name:  Type/Model designation(s):  A330 and A340 aeroplanes
TCDS Numbers:	EASA.A.004, EASA.A.015
Foreign AD:	Not applicable
Supersedure:	This AD supersedes EASA AD 2012-0258-E dated 04 December 2012.
ATA 34	Navigation – Angle Of Attack Probe Conic Plates – Operational Procedure / Replacement
Manufacturer(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 and A330-343 aeroplanes, all manufacturer serial numbers (MSN)  Airbus A340-211, A340-212, A340-213, A340-311, A340-312, A340-313, A340-541, A340-542, A340-642 and A340-643 aeroplanes, all MSN.
Reason:	An A330 aeroplane experienced a blockage of all Angle Of Attack (AOA) probes during climb leading to Autopilot (AP) disconnection and activation of the alpha protection (Alpha Prot) when Mach number increased.  Analysis showed that this aeroplane was equipped with AOA probes having conic plates, and it is suspected that these plates might have contributed to the event. Investigations are on-going to determine the root cause of this AOA probes blockage. The AOA conic plates can also be installed on A340 aeroplanes.  These AOA conic plates could have been installed in production through Airbus modification (mod.) 201609, associated to Thales Avionics AOA probes Part Number (P/N) C16291AA and P/N C16291AB, or mod. 201610, associated to Goodrich AOA probes P/N 0861ED, or in service through Airbus Service Bulletin (SB) A330-34-3255 or SB A340-34-4250 or SB A340-34-5081.  The blockage of two or three AOA probes at the same angle may cause the Apha Prot of the normal law to activate.

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Under normal flight conditions (in normal law), if the Alpha Prot activates and Mach number increases, the flight control laws order a pitch down of the aeroplane that the flight crew may not be able to counteract with a sidestick deflection, even in the full backward position.

This condition, if not corrected, could result in reduced control of the aeroplane.

To address this condition, Airbus developed a "Blocked AOA probes" emergency procedure included in Airbus Airplane Flight Manual (AFM) A330 Temporary Revision (TR) TR293 issue 1 and Airbus AFM A340 TR294 issue 1.

Consequently, EASA issued Emergency AD 2012-0258-E to require amendment of the AFM to ensure that flight crews, in case of AOA probe blockage, apply the applicable emergency procedure.

Since that AD was issued, Airbus published approved instructions to re-install AoA probe flat plates on A330/A340 family aeroplanes.

For the reasons described above, this AD retains the requirements of EASA AD 2012-0258-E which is superseded, and requires installation of AoA probe flat plates, after which the AFM operational procedure must be removed.

### Effective Date:

15 February 2013

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

Required as indicated, unless accomplished previously:

# Re-statement of EASA AD 2012-0258-Frequirement:

For A330 and A340 aeroplanes on which Airbus mod. 201609 or mod. 201610 has been embodied in production, or on which Airbus SB A330-34-3255 or SB A340-34-4250 or SB A340-34-5081 as applicable to aeroplane model, has been embodied in service:

(1) Before next flight after 06 December 2012 [the effective date of EASA AD 2012-0258-E], amend the applicable AFM to incorporate Airbus AFM A330 TR293 issue 1 or Airbus AFM A340 TR294 issue 1 "Blocked AOA probes", as applicable, depending on aeroplane type, and thereafter operate the aeroplane accordingly.

## New requirements of this AD:

For all aeroplanes as identified in the Applicability section of this AD:

- (2) Within 5 months after the effective date of this AD, remove all AoA probe conic plates having P/N F3411060200000 or P/N F3411060900000 and install AoA probe flat plates:
  - (2.1) P/N F3411007920200 or F3411007920300 in accordance with the instructions of Airbus SB A330-34-3293 or SB A340-34-4273 or SB A340-34-5093, as applicable to aeroplane type and model, or
  - (2.2) P/N F3411007920000 or F3411007920100 in accordance with approved instructions.
- (3) An aeroplane on which Airbus mod. 203285 (improve AOA flat plate protection treatment) has been embodied in production is not affected by the requirements of paragraphs (1) and (2) of this AD, provided that, since first flight, no AOA probe conic plate P/N F3411060200000 or P/N F3411060900000 has been installed on that aeroplane.
- (4) After modification of an aeroplane as required by paragraph (2) of this AD, the operational procedure introduced by paragraph (1) of this AD is no longer required and must be removed from the AFM of that aeroplane.
- (5) Do not install on an aeroplane any AOA probe conic plate P/N F3411060200000 or P/N F3411060900000, and do not use AOA protection cover P/N 98D34203003000 on an aeroplane, as follows:
  - (5.1) For aeroplanes that, on the effective date of this AD, have AOA

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	probe flat plates installed: From effective date of this AD.
	(5.2) For aeroplanes that, on the effective date of this AD, have AOA probe conic plates installed: After modification of the aeroplane as required by paragraph (2) of this AD.
Ref. Publications:	Airbus AFM A330 TR293 issue 1 and Airbus AFM A340 TR294 issue 1, "Blocked AOA probes", both approved on 04 December 2012.
	Airbus SB A330-34-3293 Original issue dated 31 January 2013.
	Airbus SB A340-34-4273 Original issue dated 30 January 2013.
	Airbus SB A340-34-5093 Original issue dated 30 January 2013.
	Note: Copies of these documents are attached to the record of this AD in the EASA AD publishing tool.
	The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.
Remarks:	<ol> <li>If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.</li> </ol>
	<ol> <li>Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until afterpublication.</li> </ol>
	<ol> <li>Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: <a href="mailto:ADs@easa.europa.eu">ADs@easa.europa.eu</a>.</li> </ol>
	<ol> <li>For any question concerning the technical content of the requirements in this AD, please contact: AIRBUS – Airworthiness Office – EIAL; E-mail: airworthiness.A330 A340@airbus.com.</li> </ol>