

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2010-0675; Directorate Identifier 2010-NM-061-AD; Amendment 39-16501; AD 2010-23-12]

RIN 2120-AA64

Airworthiness Directives; Airbus Model A330-201, -202, -203, -223, -223F, -243, and -243F Airplanes, Model A330-300 Series Airplanes, and Model A340-200, A340-300, A340-500, and A340-600 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

* * * * *

Investigation conducted by Thales on * * * probes revealed oil residue between the stator and the rotor parts of the AoA [angle of attack] vane position resolvers. This oil residue was due to incorrect cleaning of the machining oil during the manufacturing process of the AoA resolvers. At low temperatures, this oil residue becomes viscous (typically in cruise) causing lag of AoA vane movement.

Such condition could lead to discrepant AoA measurement. If not corrected, and if two or three AoA probes were simultaneously affected and provided wrong indications of the AoA to a similar extent, it could lead to a late activation of the angle of attack protection, which in combination with flight at high angle of attack would constitute an unsafe condition.

* * * * *

We are issuing this AD to require actions to correct the unsafe condition on these products.

DATES: This AD becomes effective December 14, 2010.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of December 14, 2010.

ADDRESSES: You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1138; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on July 7, 2010 (75 FR 38947). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

During Airbus Final Assembly Line reception flight tests, AoA [angle of attack] data from two different aeroplanes were found inaccurate. Inaccuracy was confirmed by flight data analysis.

Investigation conducted by Thales on the removed probes revealed oil residue between the stator and the rotor parts of the AoA vane position resolvers. This oil residue was due to incorrect cleaning of the machining oil during the manufacturing process of the AoA resolvers. At low temperatures, this oil residue becomes viscous (typically in cruise) causing lag of AoA vane movement.

Such condition could lead to discrepant AoA measurement. If not corrected, and if two or three AoA probes were simultaneously affected and provided wrong indications of the AoA to a similar extent, it could lead to a late activation of the angle of attack protection, which in combination with flight at high angle of attack would constitute an unsafe condition.

Therefore, this [European Aviation Safety Agency (EASA)] AD requires a one time inspection of the Thales Avionics AoA probe P/N [part number] C16291AA in order to identify the suspect parts and to remove them from service.

This [EASA] AD revision is issued to specify that the identification of the affected AoA probes is also possible in accordance with aeroplane maintenance records data analysis.

You may obtain further information by examining the MCAI in the AD docket.

Comments

We gave the public the opportunity to participate in developing this AD. We considered the comment received. The commenter supports the NPRM.

Airplane Models Certificated Since the NPRM Was Published

In August 2010, after the NPRM was published, the FAA type-certificated two new Airbus models: Models A330-223F and -243F, and we find that those models are also subject to the unsafe condition identified in this AD action. We have added those models to the subject heading on page 1 and to paragraph (c)(1) of this AD. Since no airplanes of those models are presently on the U.S. Register, additional notice and opportunity for public comment on that topic before issuing this AD are unnecessary.

Conclusion

We reviewed the available data, including the comment received, and determined that air safety and the public interest require adopting the AD with the changes described previously. We also determined that these changes will not increase the economic burden on any operator or increase the scope of the AD.

Differences Between This AD and the MCAI or Service Information

We have reviewed the MCAI and related service information and, in general, agree with their substance. But we might have found it necessary to use different words from those in the MCAI to ensure the AD is clear for U.S. operators and is enforceable. In making these changes, we do not intend to differ substantively from the information provided in the MCAI and related service information.

We might also have required different actions in this AD from those in the MCAI in order to follow our FAA policies. Any such differences are highlighted in a NOTE within the AD.

Costs of Compliance

We estimate that this AD will affect about 44 products of U.S. registry. (There are currently no Model A340 airplanes on the U.S. Register.) We also estimate that it will take about 3 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$11,220, or \$255 per product.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new AD:



2010-23-12 Airbus: Amendment 39-16501. Docket No. FAA-2010-0675; Directorate Identifier 2010-NM-061-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective December 14, 2010.

Affected ADs

- (b) None.

Applicability

- (c) This AD applies to the airplanes identified in paragraphs (c)(1) and (c)(2) of this AD.

(1) Airbus Model 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 airplanes, certificated in any category; all manufacturer serial numbers, equipped with Thales Avionics angle of attack (AoA) probes having part number (P/N) C16291AA.

(2) Airbus Model A340-211, A340-212, A340-213, A340-311, A340-312, A340-313, A340-541, and A340-642 airplanes, certificated in any category, all manufacturer serial numbers, equipped with Thales Avionics AoA probes having P/N C16291AA.

Subject

- (d) Air Transport Association (ATA) of America Code 34: Navigation.

Reason

- (e) The mandatory continuing airworthiness information (MCAI) states:

During Airbus Final Assembly Line reception flight tests, AoA data from two different aeroplanes were found inaccurate. Inaccuracy was confirmed by flight data analysis.

Investigation conducted by Thales on the removed probes revealed oil residue between the stator and the rotor parts of the AoA vane position resolvers. This oil residue was due to incorrect cleaning of the machining oil during the manufacturing process of the AoA resolvers. At low temperatures, this oil residue becomes viscous (typically in cruise) causing lag of AoA vane movement.

Such condition could lead to discrepant AoA measurement. If not corrected, and if two or three AoA probes were simultaneously affected and provided wrong indications of the AoA to a similar extent, it could lead to a late activation of the angle of attack

protection, which in combination with flight at high angle of attack would constitute an unsafe condition.

Therefore, this [European Aviation Safety Agency (EASA)] AD requires a one time inspection of the Thales Avionics AoA probe P/N C16291AA in order to identify the suspect parts and to remove them from service.

This [EASA] AD revision is issued to specify that the identification of the affected AoA probes is also possible in accordance with aeroplane maintenance records data analysis.

Compliance

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Inspection of AoA Probes

(g) Within 3 months after the effective date of this AD, perform a detailed visual inspection of the Thales Avionics AoA probes having P/N C16291AA for a serial number identification, in accordance with the Accomplishment Instructions of the applicable service information identified in Table 1 of this AD. A review of airplane maintenance records is acceptable in lieu of this inspection if the serial number of the AoA probe can be conclusively determined from that review. If no AoA probe having P/N C16291AA and a serial number identified in Thales Service Bulletin C16291A-34-007, Revision 01, dated December 3, 2009, is identified during the inspection required by this paragraph of this AD, no further action is required by this AD, except for paragraph (i) of this AD.

Table 1 – Applicable service information

Model	Document	Date
Model A330-200 and A330-300 series airplanes	Airbus Mandatory Service Bulletin A330-34-3232	January 20, 2010
Model A340-200 and A340-300 series airplanes	Airbus Mandatory Service Bulletin A340-34-4239	January 20, 2010
Model A340-500, and A340-600 series airplanes	Airbus Mandatory Service Bulletin A340-34-5072	January 20, 2010

Replacement of Identified AoA Probes

(h) If the serial number of the AoA probe identified during the inspection required by paragraph (g) of this AD corresponds to a suspect AoA probe specified in Thales Service Bulletin C16291A-34-007, Revision 01, dated December 3, 2009: At the applicable time specified in paragraph (h)(1) or (h)(2) of this AD, replace the affected AoA probe with a serviceable AoA probe in accordance with one of the four options specified in and in accordance with the Accomplishment Instructions of the applicable service bulletin specified in Table 1 of this AD.

(1) For airplanes on which Airbus Modification 53368 (back-up speed scale) has been embodied in production or Airbus Service Bulletin A330-34-3213, Airbus Service Bulletin A340-34-4213, or Airbus Service Bulletin A340-34-5060, as applicable, has been embodied in service: Within 3 months after the effective date of this AD.

(2) For airplanes on which Airbus Modification 53368 (back-up speed scale) has not been embodied in production and Airbus Service Bulletin A330-34-3213, Airbus Service Bulletin A340-34-4213, or Airbus Service Bulletin A340-34-5060, as applicable, has not been embodied in service: Within 15 months after the effective date of this AD.

Parts Installation

(i) As of the effective date of this AD, no person may install, on any airplane, a Thales Avionics AoA probe having P/N C16291AA and a serial number identified in Thales Service Bulletin C16291A-34-007, Revision 01, dated December 3, 2009, unless the AoA is fitted with an inspection label stating that Thales Service Bulletin C16291A-34-007, Revision 01, dated December 3, 2009, has been accomplished.

FAA AD Differences

Note 1: This AD differs from the MCAI and/or service information as follows: EASA Airworthiness Directive 2010-0016R1, dated February 9, 2010, does not include Models A330-223F and A330-243F. We find that those models need to be included in this AD action, and have coordinated this difference with EASA and Airbus.

Other FAA AD Provisions

(j) The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1138; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

Related Information

(k) Refer to MCAI EASA Airworthiness Directive 2010-0016R1, dated February 9, 2010, and the service information identified in Table 2 of this AD, for related information.

Table 2 – Related service information

Document	Revision	Date
Airbus Mandatory Service Bulletin A330-34-3232	Original	January 20, 2010
Airbus Mandatory Service Bulletin A340-34-4239	Original	January 20, 2010

Airbus Mandatory Service Bulletin A340-34-5072	Original	January 20, 2010
Thales Service Bulletin C16291A-34-007	Revision 01	December 3, 2009

Material Incorporated by Reference

(1) You must use the service information contained in Table 3 of this AD to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For Airbus service information identified in this AD, contact Airbus SAS-Airworthiness Office–EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; e-mail airworthiness.A330-A340@airbus.com; Internet <http://www.airbus.com>. For Thales Avionics service information identified in this AD, contact Thales–Aerospace Division, 105, avenue du General Eisenhower–BP 63647, 31036 Toulouse Cedex 1, France; telephone +33 (0)5 61 19 65 00; fax +33 (0)5 61 19 66 00; Internet <http://www.thalesgroup.com/aerospace>.

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Table 3 – Material incorporated by reference

Document	Revision	Date
Airbus Mandatory Service Bulletin A330-34-3232, excluding Appendix 01	Original	January 20, 2010
Airbus Mandatory Service Bulletin A340-34-4239, excluding Appendix 01	Original	January 20, 2010
Airbus Mandatory Service Bulletin A340-34-5072, excluding Appendix 01	Original	January 20, 2010
Thales Service Bulletin C16291A-34-007	Revision 01	December 3, 2009

Issued in Renton, Washington, on October 22, 2010.

Michael Kaszycki,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.