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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0150; Directorate Identifier 2011-NM-234-AD; Amendment 39-17399; AD 2013-06-03]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

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

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Airbus Model A318, A319, A320, and A321 series airplanes. This AD was prompted by reports of oil residue between the stator and the rotor parts of the position resolvers of the angle of attack (AOA) vane, which was a result of incorrect removal of the machining oil during the manufacturing process of the AOA resolvers. This AD requires an inspection to determine if certain AOA probes are installed, and replacement of any affected AOA probe. We are issuing this AD to prevent erroneous AOA information and consequent delayed or non-activation of the AOA protection systems, which during flight at a high AOA, could result in reduced control of the airplane.

DATES: This AD becomes effective May 3, 2013.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of May 3, 2013.

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: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1405; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a second supplemental notice of proposed rulemaking (SNPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That second SNPRM was published in the Federal Register on December 10, 2012 (77 FR 73340). That second SNPRM proposed to correct an unsafe condition for the specified products. The Mandatory Continuing Airworthiness Information (MCAI) states:

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

Investigation conducted by Airbus and 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 the result of incorrect removal of machining oil during the manufacturing process of the AoA resolvers. At low temperatures, this oil residue becomes viscous (typically in cruise), causing delayed and/or reduced AoA vane movement. Multiple AOA probes could be simultaneously affected, providing incorrect indications of the AoA of the aeroplane.

This condition, if not corrected, could lead to erroneous AoA information and consequent delayed or non-activation of the AoA protection systems which, during flight at a high angle of attack, could result in reduced control of the aeroplane.

For the reasons described above, this [European Aviation Safety Agency (EASA)] AD requires the identification of the serial number (s/n) of each installed Thales Avionics Part Number (P/N) C16291AA AoA probe and the replacement of all suspect units with serviceable ones. This AD also prohibits the (re)installation of these same s/n probes on any aeroplane, unless corrective measures have been accomplished.

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.

Request to Update Service Information

Airbus requested that the service information referenced in the second SNPRM (77 FR 73340, December 10, 2012) be updated to include recently added service information. Airbus stated that EASA has issued AD 2012-0236R1, dated December 17, 2012. In addition, Airbus stated that Thales Avionics has issued Service Bulletin C16291A-34-007, Revision 04, dated October 11, 2012.

We partially agree with Airbus' request regarding using the most recent service information. Since the second SNPRM (77 FR 73340, December 10, 2012) was issued, we have reviewed Thales Avionics Service Bulletin C16291A-34-007, Revision 04, dated October 11, 2012. The actions in that service information remain unchanged from the previous service information. We have revised paragraphs (g), (i), and (k) of this AD accordingly to reflect the most current Thales Avionics service information.

In addition, we have reviewed EASA AD 2012-0236, dated November 9, 2012 (corrected November 12, 2012), and EASA AD 2012-0236R1, dated December 17, 2012. We have determined that no subsequent changes are required in this final rule as done to the EASA AD. We have not changed this final rule in this regard.

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-and minor editorial changes. We have determined that these changes:

- Are consistent with the intent that was proposed in the second SNPRM (77 FR 73340, December 10, 2012) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the SNPRM (77 FR 73340, December 10, 2012).

Costs of Compliance

We estimate that this AD will affect 755 products of U.S. registry. We also estimate that it will take about 2 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 \$128,350, or \$170 per product.

In addition, we estimate that any necessary follow-on actions would take about 3 work-hours and require parts costing \$0, for a cost of \$255 per product. We have no way of determining the number of products that may need these actions.

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 that 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);
3. Will not affect intrastate aviation in Alaska; and
4. 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 second SNPRM (77 FR 73340, December 10, 2012), 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:



2013-06-03 Airbus: Amendment 39-17399. Docket No. FAA-2012-0150; Directorate Identifier 2011-NM-234-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective May 3, 2013.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Airbus Model A318-111, -112, -121, and -122 airplanes; Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; Model A320-111, -211, -212, -214, -231, -232, and -233 airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes; certificated in any category; all manufacturer serial numbers.

(d) Subject

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

(e) Reason

This AD was prompted by reports of oil residue between the stator and the rotor parts of the position resolvers of the angle of attack (AOA) vane, which was a result of incorrect removal of the machining oil during the manufacturing process of the AOA resolvers. We are issuing this AD to prevent erroneous AOA information and consequent delayed or non-activation of the AOA protection systems, which during flight at a high angle of attack, could result in reduced control of the airplane.

(f) Compliance

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

(g) Inspection

Within 12 months after the effective date of this AD, except as provided by paragraph (h) of this AD: Do the inspections specified in paragraphs (g)(1) and (g)(2) of this AD.

(1) Inspect to determine the part number (P/N) and serial number of each Thales Avionics AOA probe, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-34-1452, dated January 29, 2010. If any probe is found having P/N C16291AA and having a serial number listed in Thales Avionics Service Bulletin C16291A-34-007, Revision 04, dated October 11, 2012: Within 12 months after the effective date of this AD, replace the AOA probe, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-34-1452, provided that

Thales Avionics Service Bulletin C16291A-34-009, dated September 10, 2009; or Airbus Service Bulletin A320-34-1444, dated October 7, 2009; have not been accomplished. Thales Avionics Service Bulletin C16291A-34-009, dated September 10, 2009; and Airbus Service Bulletin A320-34-1444, dated October 7, 2009; (which are not incorporated by reference in this AD) cannot be used for the installation of AOA probes having P/N C16291AB. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number and serial number of the installed AOA probes can be conclusively determined from that review.

(2) Inspect to determine the part number and serial number of each Thales Avionics AOA probe, in accordance with paragraph 3.C.(1)(a) of the Accomplishment Instructions of Airbus Service Bulletin A320-34-1452, dated January 29, 2010. If any probe is found having P/N C16291AB, on which Thales Avionics Service Bulletin C16291A-34-009, dated September 10, 2009; or Airbus Service Bulletin A320-34-1444, dated October 7, 2009; (which are not incorporated by reference in this AD) has been accomplished: Within 12 months after the effective date of this AD, replace the AOA probe, in accordance with a method approved by the Manager, International Branch, ANM-116, FAA, or European Aviation Safety Agency (EASA) (or its delegated agent). A review of airplane maintenance records is acceptable in lieu of the inspection specified in this paragraph if the part number of the installed AOA probes can be conclusively determined from that review.

Note 1 to paragraph (g)(2) of this AD: Additional guidance for replacing the AOA probes may be found in Task 34-11-19-000-001-A, Removal of the Angle of Attack Sensor, of the Airbus A318/A319/A320/A321 Aircraft Maintenance Manual, which is not incorporated by reference in this AD.

(h) Exception to the Requirements of Paragraph (g) of This AD

For any airplane on which Airbus modification 150006 (installation of Thales Avionics AOA probes P/N C16291AB) or modification 26934 (installation of Goodrich AOA probes P/N 0861ED) has been embodied in production, and on which no AOA probe replacement has been made since first flight: The actions specified in paragraph (g) of this AD are not required.

(i) Parts Installation Limitation and Prohibition

(1) As of the effective date of this AD, no person may install a Thales Avionics AOA probe, P/N C16291AA, having a serial number listed in Thales Avionics Service Bulletin C16291A-34-007, Revision 04, dated October 11, 2012, on any airplane, unless that Thales Avionics probe has been inspected, re-identified, and tested, in accordance with the Accomplishment Instructions of the service information specified in paragraphs (i)(1)(i) through (i)(1)(iv) of this AD.

(i) Thales Avionics Service Bulletin C16291A-34-007, Revision 04, dated October 11, 2012.

(ii) Thales Avionics Service Bulletin C16291A-34-007, Revision 03, dated April 10, 2012.

(iii) Thales Avionics Service Bulletin C16291A-34-007, Revision 02, dated December 16, 2011.

(iv) Thales Avionics Service Bulletin C16291A-34-007, Revision 01, dated December 3, 2009.

(2) As of the effective date of this AD, no person may install a Thales Avionics AOA probe, P/N C16291AB, on which Thales Avionics Service Bulletin C16291A-34-009, dated September 10, 2009; or Airbus Service Bulletin A320-34-1444, dated October 7, 2009; (which are not incorporated by reference in this AD) has been incorporated.

(j) Other FAA AD Provisions

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. In accordance with 14 CFR 39.19, send your

request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1405; fax (425) 227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding 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.

(k) Related Information

Refer to MCAI EASA AD 2011-0203, dated October 13, 2011, and the service information specified in paragraphs (k)(1) through (k)(5) of this AD, for related information.

- (1) Airbus Service Bulletin A320-34-1452, dated January 29, 2010.
- (2) Thales Avionics Service Bulletin C16291A-34-007, Revision 04, dated October 11, 2012.
- (3) Thales Avionics Service Bulletin C16291A-34-007, Revision 03, dated April 10, 2012.
- (4) Thales Avionics Service Bulletin C16291A-34-007, Revision 02, dated December 16, 2011.
- (5) Thales Avionics Service Bulletin C16291A-34-007, Revision 01, dated December 3, 2009.

(l) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

- (i) Airbus Service Bulletin A320-34-1452, dated January 29, 2010.
- (ii) Thales Avionics Service Bulletin C16291A-34-007, Revision 04, dated October 11, 2012.
- (iii) Thales Avionics Service Bulletin C16291A-34-007, Revision 03, dated April 10, 2012.

Pages 1, 8, 10, 11, and 13 of this document are identified as Revision 03, dated April 10, 2012. Pages 2, 7, and 12 are identified as Revision 01, dated December 3, 2009. Page 9 is identified as Revision 02, dated December 16, 2011.

(iv) Thales Avionics Service Bulletin C16291A-34-007, Revision 02, dated December 16, 2011. Pages 1, and pages 8 through 10 of this document are identified as Revision 02, dated December 16, 2011; pages 2 through 7, and pages 11 through 13 are identified as Revision 01, dated December 3, 2009.

- (v) Thales Avionics Service Bulletin C16291A-34-007, Revision 01, dated December 3, 2009.

(3) For Airbus service information identified in this AD, contact Airbus, Airworthiness Office—EAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com; Internet <http://www.airbus.com>. For Thales Avionics service information identified in this AD, contact Thales Avionics, Retrofit Manager, 105, Avenue du Général Eisenhower, BP 63647, 31036 Toulouse Cedex 1, France; telephone +33 5 61 19 76 95; fax +33 5 61 19 68 20; email retrofit.ata@fr.thalesgroup.com; Internet <http://www.thalesgroup.com/aerospace>.

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

(5) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on March 8, 2013.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.