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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2010-1309; Directorate Identifier 2010-NM-060-AD; Amendment 39-16662; AD 2011-08-12]

RIN 2120-AA64

Airworthiness Directives; Airbus Model A330-300, A340-200, and A340-300 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:

> Surface defects were visually detected on the rudder of one Airbus A319 and one A321 in-service aeroplane. Investigation has determined that the defects reported on both rudders corresponded to areas that had been reworked in production. The investigation confirmed that the defects were the result of de-bonding between the skin and honeycomb core. Such reworks were also performed on some rudders fitted on A330-300 and A340-200/-300 aeroplanes.
>
> An extended de-bonding, if not detected and corrected, may degrade the structural integrity of the rudder. The loss of the rudder leads to degradation of the handling qualities and reduces the controllability of the aeroplane.
>
> * * * * *

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

DATES: This AD becomes effective May 26, 2011.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of May 26, 2011.

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 January 13, 2011 (76 FR 2284). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

> Surface defects were visually detected on the rudder of one Airbus A319 and one A321 in-service aeroplane. Investigation has determined that the defects reported on both rudders corresponded to areas that had been reworked in production. The investigation confirmed that the defects were the result of de-bonding between the skin and honeycomb core. Such reworks were also performed on some rudders fitted on A330-300 and A340-200/-300 aeroplanes.
>
> An extended de-bonding, if not detected and corrected, may degrade the structural integrity of the rudder. The loss of the rudder leads to degradation of the handling qualities and reduces the controllability of the aeroplane.
>
> EASA AD 2009-0156 required inspections of specific areas and, depending on findings, the application of corrective actions for those rudders where production reworks have been identified.
>
> This AD retains the requirements of EASA AD 2009-0156, which is superseded, and in addition requires for the vacuum loss hole restoration:
>
> –A local ultrasonic inspection for reinforced area instead of the local thermography inspection, which is maintained for non-reinforced areas, and
> –An additional work for aeroplanes on which this thermography inspection has been performed in the reinforced area.

The inspections include vacuum loss inspections and repetitive elasticity laminate checker inspections for defects including de-bonding between the skin and honeycomb core of the rudder, and ultrasonic inspections for defects on rudders on which temporary restoration with resin or permanent vacuum loss hole restoration has been performed. The corrective action is repair, if necessary. 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 received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed.

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

Currently, there are no affected airplanes on the U.S. Register. However, if an affected airplane is imported and placed on the U.S. Register in the future, the required actions would take about 21 work hours, at an average labor rate of $85 per work hour. Based on these figures, we estimate the cost of this AD to be $1,785 per airplane.

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); 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:

2011-08-12 Airbus: Amendment 39-16662. Docket No. FAA-2010-1309; Directorate Identifier 2010-NM-060-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective May 26, 2011.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Airbus Model A330-301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes, Model A340-211, -212, and -213 airplanes; and Model A340-311, -312, and -313 airplanes; all manufacturer serial numbers; certificated in any category; equipped with carbon fiber reinforced plastic rudders having part numbers and serial numbers listed in table 1 of this AD.

Table 1–Affected Rudders

Rudder Part Number	Rudder Serial Number
F554-70000-000-00	TS-2013
F554-70000-000-00	TS-2015
F554-70000-000-00	TS-2016
F554-70000-000-00	TS-2017
F554-70000-000-00	TS-2018
F554-70000-000-00	TS-2020
F554-70000-000-00	TS-2021
F554-70000-000-00	TS-2024
F554-70000-000-00	TS-2026
F554-70000-000-00	TS-2035
F554-70000-000-00	TS-2036
F554-70000-000-00	TS-2040
F554-70000-000-00	TS-2042
F554-70000-000-00	TS-2055
F554-70000-000-00	TS-2056
F554-70000-000-00	TS-2058
F554-70000-000-00	TS-2059
F554-70000-000-00	TS-2061
F554-70000-000-00	TS-2062
F554-70000-000-00	TS-2063
F554-70000-000-00	TS-2065
F554-70000-002-00	TS-2074
F554-71000-000-00	TS-3003
F554-71000-000-00	TS-3004
F554-71000-000-00	TS-3005
F554-71000-000-00	TS-3006
F554-71000-000-00	TS-3007
F554-71000-000-00	TS-3008
F554-71000-000-00	TS-3011
F554-71000-000-00	TS-3015
F554-71000-000-00	TS-3033
F554-71000-000-00	TS-3061
F554-71000-000-00	TS-3064
F554-71000-000-00	TS-3066
F554-71000-000-00	TS-3071
F554-71000-000-00	TS-3072
F554-71000-000-00	TS-3075
F554-71000-000-00	TS-3079
F554-71000-000-00	TS-3084
F554-71000-000-00	TS-3087
F554-70005-000-00	TS-3100
F554-70005-000-00	TS-3106
F554-70005-000-00	TS-3107
F554-70005-000-00	TS-3119
F554-70005-000-00	TS-3124

Subject

(d) Air Transport Association (ATA) of America Code 55: Stabilizers.

Reason

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

> Surface defects were visually detected on the rudder of one Airbus A319 and one A321 in-service aeroplane. Investigation has determined that the defects reported on both rudders corresponded to areas that had been reworked in production. The investigation confirmed that the defects were the result of de-bonding between the skin and honeycomb core. Such reworks were also performed on some rudders fitted on A330-300 and A340-200/-300 aeroplanes.
>
> An extended de-bonding, if not detected and corrected, may degrade the structural integrity of the rudder. The loss of the rudder leads to degradation of the handling qualities and reduces the controllability of the aeroplane.

* * * * *

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.

Actions

(g) Do the actions required by paragraphs (g)(1) through (g)(8) of this AD, in accordance with the Instructions of Airbus All Operators Telex (AOT) A330-55A3040 or A340-55A4036, both Revision 02, both dated September 30, 2009, as applicable.

(1) In the reinforced location of the rudder: Within 1,800 flight hours after the rudder has accumulated 13,000 total flight cycles since first installation, or within 1,800 flight hours after the effective date of this AD, whichever is later, do a vacuum loss inspection to detect defects, including de-bonding between the skin and honeycomb core of the rudder.

(2) In the trailing edge location of the rudder: Within 21 months after the rudder has accumulated 13,000 total flight cycles since first installation, or within 21 months after the effective date of this AD, whichever is later, do an elasticity laminate checker inspection to detect defects, including de-bonding between the skin and honeycomb core of the rudder. If no defects are found, repeat the inspection two times at intervals not to exceed 4,500 flight cycles, but not fewer than 4,000 flight cycles from the most recent inspection.

(3) In locations other than those identified in paragraphs (g)(1) and (g)(2) of this AD (e.g., lower rib, upper edge, leading edge, and other locations): Within 1,800 flight hours after the rudder has accumulated 13,000 total flight cycles since first installation, or within 1,800 flight hours after the effective date of this AD, whichever is later, do an elasticity laminate checker inspection to detect defects, including de-bonding between the skin and honeycomb core of the rudder. Repeat the inspection thereafter at intervals not to exceed 1,800 flight hours.

(4) If no defects are found during any inspection required by paragraph (g)(3) of this AD: Within 21 months after the rudder has accumulated 13,000 total flight cycles since first installation, or within 21 months after the effective date of this AD, whichever is later, do a vacuum loss inspection on the other locations (e.g., lower rib, upper edge, leading edge, and other locations) to detect defects, including de-bonding between the skin and honeycomb core of the rudder.

(5) Accomplishment of the inspection required by paragraph (g)(4) of this AD terminates the initial and repetitive inspections required by paragraph (g)(3) of this AD.

(6) If any defect is found during any inspection required by this AD, before further flight, repair using a method approved by either the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency Airworthiness (EASA) (or its delegated agent).

(7) If no defects are found during any inspection required by paragraphs (g)(1) and (g)(4) of this AD, before further flight, restore the vacuum loss holes by doing a temporary restoration with self-adhesive patches, a temporary restoration with resin, or a permanent restoration. Do the applicable actions specified in paragraph (g)(7)(i) or (g)(7)(ii) of this AD.

(i) For airplanes on which a temporary restoration with patch is done: Within 900 flight hours after the restoration, do a detailed inspection for defects of the restored area and repeat the inspection thereafter at intervals not to exceed 900 flight hours until the permanent restoration is done. Do the permanent restoration within 21 months after the temporary restoration.

(ii) For airplanes on which a temporary restoration with resin is done: Within 21 months after doing the temporary restoration, do the permanent restoration.

(8) If any defect is found during any initial inspection required by paragraphs (g)(1), (g)(3), and (g)(4) of this AD, at the applicable time in paragraph (g)(8)(i) or (g)(8)(ii) of this AD: Report the inspection results to Airbus SAS, SEER1/SEER2/SEER3, Customer Services, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; fax +33 (0) 5 61 93 28 73; or e-mail to region1.StructureRepairSupport@airbus.com, region2.StructureRepairSupport@airbus.com, or region3.StructureRepairSupport@airbus.com.

(i) Inspections done before the effective date of this AD: Within 30 days after the effective date of this AD.

(ii) Inspections done on or after the effective date of this AD: Within 30 days after accomplishment of the inspection.

Credit for Actions Accomplished in Accordance With Previous Service Information

(h) Actions accomplished before the effective date of this AD in accordance with the service information identified in table 2 of this AD, are considered acceptable for compliance with the corresponding actions specified in paragraphs (g)(1) through (g)(5) and paragraph (g)(7) of this AD for only the areas inspected. For all areas, the repetitive inspections required by this AD remain applicable.

Table 2–Credit Service Information

Document	Revision	Date
Airbus AOT A330-55A3040	Original	May 27, 2009
Airbus AOT A330-55A3040	01	July 8, 2009
Airbus AOT A340-55A4036	Original	May 27, 2009
Airbus AOT A340-55A4036	01	July 8, 2009

(i) For rudders on which temporary vacuum loss hole restoration with resin or permanent vacuum loss hole restoration has been done, as required by paragraph (g)(7) of this AD, in accordance with the applicable AOT in table 2 of this AD before the effective date of this AD: Within 21 months after the restoration date, or within 3 months after the effective date of this AD, whichever occurs later, do an ultrasonic inspection for defects, including debonding of the reinforced area, in accordance with the Instructions of Airbus AOT A330-55A3040 or A340-55A4036, both Revision 02, both dated September 30, 2009, as applicable. If any defect is found, before further

flight, repair using a method approved by either the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the EASA (or its delegated agent).

(j) As of the effective date of this AD, no person may install any rudder identified in table 1 of this AD on any airplane, unless the rudder has been inspected and all applicable corrective actions have been done in accordance with paragraph (g) or (i) of this AD, as applicable.

FAA AD Differences

Note 1: This AD differs from the MCAI and/or service information as follows: No differences.

Other FAA AD Provisions

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, 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: 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. Information may be e-mailed 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.

(3) Reporting Requirements: A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW., Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

Related Information

(l) Refer to MCAI EASA Airworthiness Directive 2010-0021, dated February 9, 2010; and Airbus AOTs A330-55A3040 and A340-55A4036, both Revision 02, both dated September 30, 2009; for related information.

Material Incorporated by Reference

(m) You must use Airbus All Operators Telex A330-55A3040, Revision 02, dated September 30, 2009, or Airbus All Operators Telex A340-55A4036, Revision 02, dated September 30, 2009; as applicable; to do the actions required by this AD, unless the AD specifies otherwise. (The document

number, revision level, and date of these documents are indicated only on the first page of these documents.)

(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 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.

(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.

Issued in Renton, Washington, on April 4, 2011.

Ali Bahrami,

Manager, Transport Airplane Directorate,

Aircraft Certification Service.