



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2014-1045; Directorate Identifier 2014-NM-031-AD; Amendment 39-18372; AD 2016-01-13]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for all Airbus Model A310 and Airbus Model A300 B4-600, B4-600R, and F4-600R series airplanes; and Model A300 C4-605R Variant F airplanes (collectively called Model A300-600 series airplanes). This AD was prompted by a report of skin disbonding and damage found on the composite side panel of the rudder, located between the rudder core and skin of a previously repaired area. This AD requires an inspection for disbonding or damage of certain rudders, and related investigative actions and corrective actions if necessary. We are issuing this AD to detect and correct disbonding and damage of the rudder, which could result in reduced structural integrity of the rudder and consequent reduced controllability of the airplane.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may examine the AD docket on the Internet at <http://www.regulations.gov/#!docketDetail;D=FAA-2014-1045>; or in person at the Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

For service information identified in this final rule, contact Airbus SAS, Airworthiness Office – EAW, 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](mailto:account.airworth-eas@airbus.com); Internet <http://www.airbus.com>. You may view this referenced 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. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-1045.

**FOR FURTHER INFORMATION CONTACT:** Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-2125; fax 425- 227-1149.

**SUPPLEMENTARY INFORMATION:**

**Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Airbus Model A310 and Airbus Model A300 B4-600, B4-600R, and F4-600R series airplanes, and Model A300 C4-605R Variant F airplanes (collectively called Model A300-600 series airplanes) series airplanes. The NPRM published in the Federal Register on January 23, 2015 (80 FR 3525).

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2014-0026, dated January 28, 2014 (referred to after this as the Mandatory Continuing

Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Airbus Model A310 and Airbus Model A300 B4-600, B4-600R, and F4-600R series airplanes; and Model A300 C4-605R Variant F airplanes (collectively called Model A300-600 series airplanes). The MCAI states:

A case of skin disbonding was reported on a composite side of a rudder installed on an A310 aeroplane.

The investigation results revealed that this disbonding started from a skin panel area previously repaired in-service in accordance with the Structural Repair Manual (SRM).

The initial damage has been identified as a disbonding between the core and the repaired area. This damage may not be visually detectable and likely propagates during normal operation due to the variation of pressure during ground-air-ground cycles.

This condition, if not detected and corrected, could affect the structural integrity of the rudder, possibly resulting in reduced control of the aeroplane.

For the reasons described above, this [EASA] AD requires a one-time thermography inspection of each repaired rudder or rudder whose maintenance records are incomplete and, depending on findings, accomplishment of applicable corrective and follow-up actions.

Related investigative actions include doing a pulse thermography inspection for disbonding or damage of the left- and right-hand rudder side shells; a core ventilation through the inner skin, an elasticity laminate checker or ultrasonic inspection around the identified repairs in the booster area, and around identified fluid ingress; and a Tap test inspection of the glass fiber reinforced plastic area to identify skin-to-core disbonding and on identified repairs. Corrective actions include repairing or replacing any disbonded or damaged rudder.

Depending on configuration and inspection results, the repetitive inspection intervals are 750 or 1,000 flight cycles, or 500 flight hours or 4 months, whichever occurs later.

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2014-1045-0002>.

### **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM (80 FR 3525, January 23, 2015) and the FAA's response to each comment.

#### **No Justification for Issuing NPRM (80 FR 3525, January 23, 2015)**

FedEx stated that Airbus has not provided any data or analysis showing the de-validated SRM procedures in the proposed AD (80 FR 3525, January 23, 2015) as inadequate. FedEx noted that one finding on a Model A310 airplane with skin disbonding and damage found on the composite side panel of the rudder caused the de-validation of all Model A300 and A310 airplanes with rudder side shell repairs, and mandatory inspections of all rudders repaired using the structural repair manual (SRM). FedEx added that a heavy burden is being placed on operators with very little justification from the manufacturer. FedEx stated that Airbus has not provided new validated SRM procedures, yet FedEx is being required to inspect all rudders without having any available, developed repairs; instead repairs would need to be done using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA). FedEx does not agree with the de-validation of the SRM procedures and mandating inspections of the entire fleet of airplanes, based on one finding.

We infer that the commenter is asking for justification to support issuing this final rule. We acknowledge the commenter's concerns. However, the safety risk of undetected rudder skin disbonding that may not be detectable visually and could propagate during normal operation due to the variation of aerodynamic pressure during ground-air-ground cycles is sufficient to require the proposed actions. We also acknowledge that Airbus does not have new SRM procedures available, partially due to the unknown size and location of previously accomplished SRM repairs and the type of skin disbonding that may be identified that will result in each repair needing to be evaluated individually. Therefore, we have determined that inspections are necessary if an applicable SRM repair has been done, or if maintenance records are not available or are incomplete. The service information provides procedures for the detailed inspections; therefore, using a method approved by the FAA, EASA, or Airbus's EASA DOA is necessary only for repairs. We have determined it is necessary to proceed with issuing this final rule as proposed.

#### **Request to Allow Using Future Revisions of the SRM for Rudder Repairs**

FedEx asked that paragraph (i) of the proposed AD (80 FR 3525, January 23, 2015) be revised to allow a composite side shell panel repair on any rudder using future revisions of the SRM procedure identified in Figure A-GBBAA (Sheet 01 and 02) or Figure A-GBCAA (Sheet 02) of Airbus Service Bulletin A310-55-2051; or Figure A-GBBAA (Sheet 01, 02, or 03) or Figure A-GBCAA (Sheet 02 or 04) of Airbus Service Bulletin A300-55-6050. FedEx stated that when Airbus revalidates the SRM procedures, FedEx won't be able to use those procedures for the repair because it is not allowed per paragraph (i) of the proposed AD.

We do not agree with the request. Although we understand the FedEx concerns, allowing the use of later revisions of service documents in an AD is not allowed by the Office of the Federal Register's regulations. However, after the manufacturer validates a later revision of the SRM procedures that provides an acceptable level of safety we can

evaluate the later revision of the SRM as an alternative method of compliance, in accordance with the procedures specified in paragraph (m)(1) of this AD. Paragraph (i) of this AD only prohibits the use of specific SRM procedures identified in that paragraph. We have not changed this AD in this regard.

### **Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (80 FR 3525, January 23, 2015) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (80 FR 3525, January 23, 2015).

### **Related Service Information under 1 CFR part 51**

Airbus has issued Service Bulletins A300-55-2051 and A310-55-6050, both Revision 01, both dated August 20, 2014. The service information describes procedures for inspecting the left- and right-hand rudder side shells for disbonding or damage, and related investigative actions and corrective actions if necessary. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **Costs of Compliance**

We estimate that this AD affects 199 airplanes of U.S. registry.

We also estimate that it will take about 4 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Required

parts will cost about \$0 per product. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$67,660, or \$340 per product.

We have received no definitive data that would enable us to provide a cost estimate for the on-condition actions specified in this AD.

### **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**

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 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.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at:

<http://www.regulations.gov/#!docketDetail;D=FAA-2014-1045>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, 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.

### **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 airworthiness directive (AD):

**2016-01-13 Airbus:** Amendment 39-18372; Docket No. FAA-2014-1045; Directorate Identifier 2014-NM-031-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all Airbus Model A310-203, -204, -221, -222, -304, -322, -324, and -325 airplanes; Model A300 B4-601, B4-603, B4-620, and B4-622 airplanes; Model A300 B4-605R and B4-622R airplanes; and Model A300 F4-605R, F4-622R, and A300 C4-605R Variant F airplanes; certificated in any category.

**(d) Subject**

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

**(e) Reason**

This AD was prompted by a report of skin disbonding and damage found on the composite side panel of the rudder, located between the rudder core and skin of a previously repaired area. We are issuing this AD to detect and correct disbonding and damage of the rudder, which could result in reduced structural integrity of the rudder, and consequent reduced controllability of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Rudder Assembly Identification**

Within 4 months after the effective date of this AD: Check the applicable rudder maintenance records to determine if any composite side shell panel repair has been done since first installation of the rudder, and do the applicable actions specified in paragraph (g)(1) or (g)(2) of this AD at the time specified in paragraph 1.E., "Compliance," of Airbus Service Bulletin A300-55-6050, or A310-55-2051, both Revision 01, both dated August 20, 2014; as applicable, except as provided by paragraph (j)(3) of this AD.

(1) If a repair is identified based on the maintenance records: Perform a rudder thermography inspection of the repaired area only for disbonding or damage, in

accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-55-6050, or A310-55-2051, both Revision 01, both dated August 20, 2014; as applicable.

(2) If the rudder maintenance records are unavailable or incomplete: Perform a rudder thermography inspection of the complete side shell panels to identify and mark the repair locations for disbonding or damage, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-55-6050, or A310-55-2051, both Revision 01, both dated August 20, 2014; as applicable.

**(h) Related Investigative Actions/Repair or Replace**

If any disbonding or damage is found during any inspection required by paragraph (g)(1) or (g)(2) of this AD: Do the actions required by paragraphs (h)(1) and (h)(2) of this AD, as applicable.

(1) At the time specified in paragraph 1.E., “Compliance,” of Airbus Service Bulletin A300-55-6050, or A310-55-2051, both Revision 01, both dated August 20, 2014; as applicable, except as required by paragraph (j)(1) of this AD; do the applicable related investigative actions identified in Tables 3, 4A, 4B, 4C, 4D, and 5 of paragraph 1.E., “Compliance,” of Airbus Service Bulletin A300-55-6050, or A310-55-2051, both Revision 01, both dated August 20, 2014; as applicable, to determine the type and extent of the disbonding or damage, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-55-6050, or A310-55-2051, both Revision 01, both dated August 20, 2014; as applicable. Repeat the applicable inspection at the time specified in paragraph 1.E., “Compliance” of Airbus Service Bulletin A300-55-6050, or A310-55-2051, both Revision 01, both dated August 20, 2014; as applicable.

(2) Before further flight: Repair any disbonding or damage found during any inspection required by paragraph (h)(1) of this AD, or replace any affected rudder, as applicable, in accordance with the Accomplishment Instructions of Airbus Service

Bulletin A300-55-6050, or A310-55-2051, both Revision 01, both dated August 20, 2014; as applicable, except as required by paragraph (j)(4) of this AD.

**(i) Repair Using Structural Repair Manual (SRM) Procedure Not Allowed**

As of the effective date of this AD, do not accomplish a composite side shell panel repair on any rudder using an SRM procedure identified in Figure A-GBBAA (Sheet 01 and 02) or Figure A-GBCAA (Sheet 02) of Airbus Service Bulletin A310-55-2051; or Figure A-GBBAA (Sheet 01, 02, or 03) or Figure A-GBCAA (Sheet 02 or 04) of Airbus Service Bulletin A300-55-6050; as applicable.

**(j) Exceptions to Service Information**

(1) Where Airbus Service Bulletins A300-55-6050; and A310-55-2051; both Revision 01, both dated August 20, 2014; specify a compliance time “from original service bulletin issue date,” this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) Where Airbus Service Bulletins A300-55-6050; and A310-55-2051 both Revision 01, both dated August 20, 2014; specify to contact Airbus for appropriate action: Before further flight, repair using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Airbus’s EASA Design Organization Approval (DOA).

(3) Airplanes on which a rudder is installed having a serial number that is not in the range HF-1005 through HF-1323, inclusive; HF-1325, HF-1327, HF-1329, HF-1331, HF-1332, HF-1340, TS-1324, TS-1326, TS-1328, TS-1330, TS-1333 through TS-1339, inclusive; TS-1341 through TS-1420, inclusive; or TS-2001 through TS-2197, inclusive; are not affected by the requirements of paragraphs (g) and (h) of this AD, provided that no repairs have been done in accordance with the applicable SRM specified in

paragraph (i) of this AD on the composite side shell panel of that rudder since installation.

(4) The compliance time for the initial detailed inspection of the restored area for loose or lost tape identified in Tables 3 and 4 of paragraph 1.E., “Compliance,” of Airbus Service Bulletins A300-55-6050 and A310-55-2051, both Revision 01, both dated August 20, 2014; specifies “within 500 FH or 4 months after closing holes.” This AD requires this action within 500 flight hours or 4 months, whichever occurs later, after the holes are closed.

**(k) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraphs (g) and (h) of this AD, if those actions were performed before the effective date of this AD using Airbus Service Bulletin A300-55-6050, or A310-55-2051, both dated September 11, 2012; as applicable; which are not incorporated by reference in this AD.

**(l) Parts Installation Limitations**

As of the effective date of this AD, no person may install any affected rudder on any airplane, unless the actions required by paragraphs (g) and (h) of this AD have been accomplished.

**(m) 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: Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA 1601 Lind Avenue SW.,

Renton, WA 98057-3356; telephone 425- 227-2125; 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.

**(2) Contacting the Manufacturer:** For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or Airbus's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

**(n) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2014-0026, dated January 28, 2014, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2014-1045-0002>.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (o)(3) and (o)(4) of this AD.

**(o) 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 A300-55-6050, Revision 01, dated August 20, 2014.

(ii) Airbus Service Bulletin A310-55-2051, Revision 01, dated August 20, 2014.

(3) For service information identified in this AD, contact Airbus SAS, Airworthiness Office – EAW, 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](mailto:account.airworth-eas@airbus.com); Internet <http://www.airbus.com>.

(4) You may view this 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 December 31, 2015.

Phil Forde,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

[FR Doc. 2016-00376 Filed: 1/20/2016 8:45 am; Publication Date: 1/21/2016]