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**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2010-0478; Directorate Identifier 2008-NM-090-AD; Amendment 39-16451; AD 2010-20-16]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Model A300 B4-600, B4-600R, and F4-600R Series Airplanes, and Model A300 C4-605R Variant F Airplanes (Collectively Called A300-600 Series Airplanes); and Model A300 and A310 Series Airplanes**

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

**ACTION:** Final rule.

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**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:

\* \* \* \* \*

Two cases of complete nose landing gear (NLG) shock absorber bolts failure were reported to the manufacturer. In both cases, the crew was unable to retract the gear and was forced to an In Flight Turn Back. In one case, the aircraft experienced a low speed runway excursion. The root cause of the bolts failure has been identified being due to a bolt(s) over-torque. The investigation has highlighted that the design of the NLG shock absorber was not tolerant to the over-torque, and an inspection plan has been developed to track any NLG shock absorber-to-main barrel attachment bolts status. \* \*

\*

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

**DATES:** This AD becomes effective November 5, 2010.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of November 5, 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:** Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 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 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on May 19, 2010 (75 FR 27956). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

\* \* \* \* \*

Two cases of complete nose landing gear (NLG) shock absorber bolts failure were reported to the manufacturer. In both cases, the crew was unable to retract the gear and was forced to an In Flight Turn Back. In one case, the aircraft experienced a low speed runway excursion. The root cause of the bolts failure has been identified being due to a bolt(s) over-torque. The investigation has highlighted that the design of the NLG shock absorber was not tolerant to the over-torque, and an inspection plan has been developed to track any NLG shock absorber-to-main barrel attachment bolts status. The preliminary inspection plan, required by DGAC France Airworthiness Directive (AD) F-2004-075 and F-2004-076, has allowed limiting the number of findings: High at the initial inspection, it has decreased following the repetitive inspections.

This new [European Aviation Safety Agency (EASA)] AD retains the requirements of those ADs, which are superseded, and requires a repetitive torque check of the NLG shock absorber-to-main barrel attachment bolts with new thresholds and intervals.

This new AD also refers to an optional modification as terminating action.

\* \* \* \* \*

The optional modification involves modifying the shock absorber-to-barrel attachment to increase over-torque tolerances. The actions to address the unsafe condition also include inspecting the NLG shock absorber-to-main barrel attachment bolts and doing corrective actions. The corrective actions include replacing bolts, screws, nuts, washers, and cotter pins; contacting Airbus for repair and doing the repair; and modifying the shock absorber; as applicable. The inspection of the NLG shock absorber-to-main barrel attachment bolts is repeated at intervals not to exceed 400 flight hours or 1,000 flight cycles, depending on the inspection results and corrective actions performed. 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 Remove Reporting Requirement**

UPS requests that we remove the requirement to submit a report after each inspection that results in re-torque or replacement of bolts. UPS contends that Airbus has had sufficient time to gather enough data to determine the root cause of the over-torqued bolts. UPS has done the inspections of the NLG in accordance with Airbus All Operator Telex A300-32A6093, dated April 22, 2004, since it was published. UPS states that Airbus has been collecting data from airlines that operate under EASA regulations. UPS also points out that, although it has been doing the inspections for 6 years, it would need to do an additional inspection within 30 days to document the findings and complete the inspection report. UPS believes this reporting requirement places an unnecessary burden on the operator.

We agree with the request for the reasons stated above. Airbus no longer needs this information from operators. We have removed paragraph (k) of the NPRM and have re-identified subsequent paragraphs in this AD accordingly.

## **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 change described previously. We determined that this change 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 229 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 \$38,930, or \$170 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:



**2010-20-16 Airbus:** Amendment 39-16451. Docket No. FAA-2010-0478; Directorate Identifier 2008-NM-090-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective November 5, 2010.

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to Airbus Model A300 B2-1A, B2-1C, B4-2C, B2K-3C, B4-103, B2-203, and B4-203 airplanes; Model A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, and C4-605R Variant F airplanes; and Model A310-203, -204, -221, -222, -304, -322, -324, and -325 airplanes; all certified models, all serial numbers, certificated in any category; except airplanes on which Airbus Modification 13212 has been done in production or Airbus Service Bulletin A300-32-0453, A310-32-2135, or A300-32-6099 has been done in service.

**Subject**

- (d) Air Transport Association (ATA) of America Code 32: Landing gear.

**Reason**

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

Two cases of complete nose landing gear (NLG) shock absorber bolts failure were reported to the manufacturer. In both cases, the crew was unable to retract the gear and was forced to an In Flight Turn Back. In one case, the aircraft experienced a low speed runway excursion. The root cause of the bolts failure has been identified being due to a bolt(s) over-torque. The investigation has highlighted that the design of the NLG shock absorber was not tolerant to the over-torque, and an inspection plan has been developed to track any NLG shock absorber-to-main barrel attachment bolts status. The preliminary inspection plan, required by DGAC France Airworthiness Directive (AD) F-2004-075 and F-2004-076, has allowed limiting the number of findings: High at the initial inspection, it has decreased following the repetitive inspections.

This new [European Aviation Safety Agency (EASA)] AD retains the requirements of those ADs, which are superseded, and requires a repetitive torque check of the NLG shock absorber-to-main barrel attachment bolts with new thresholds and intervals. This new AD also refers to an optional modification as terminating action.

\* \* \* \* \*

The optional modification involves modifying the shock absorber-to-barrel attachment to increase over-torque tolerances. The actions to address the unsafe condition also include inspecting the NLG shock absorber-to-main barrel attachment bolts and corrective actions. The corrective actions include replacing bolts, screws, nuts, washers, and cotter pins; contacting Airbus for repair and doing the repair; and modifying the shock absorber; as applicable.

**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 and Corrective Action**

(g) At the applicable time specified in paragraph (g)(1), (g)(2), or (g)(3) of this AD: Do a visual inspection to detect operational condition (i.e., free of corrosion and not deformed) and inspect rotation/torque of the NLG shock absorber-to-main barrel attachment bolts and do all applicable corrective actions, in accordance with the applicable Airbus all operators telex (AOT) identified in Table 1 of this AD. Do all applicable corrective actions before further flight. Thereafter, repeat the inspection at the applicable intervals, depending on inspection results and the corrective actions performed, as specified in the applicable Airbus AOT identified in Table 1 of this AD.

(1) For airplanes on which the NLG has been overhauled (the bolts have been removed) as of the effective date of this AD: Within 30 days or 1,000 flight cycles on the NLG after the effective date of this AD, whichever occurs later.

(2) For airplanes on which, as of the effective date of this AD, the NLG has accumulated less than 1,000 total flight cycles, and has not been overhauled (the bolts have never been removed), since manufacture of the NLG: Before the accumulation of 1,000 total flight cycles on the NLG, or within 30 days after the effective date of this AD, whichever occurs later.

(3) For airplanes on which, as of the effective date of this AD, the NLG has accumulated 1,000 or more total flight cycles, and has not been overhauled since new (the bolts have never been removed): Within 30 days after the effective date of this AD.

**Table 1 – Airbus All Operator Telexes**

<b>For Model -</b>	<b>Use Airbus All Operator Telex -</b>	<b>Dated -</b>
A300 series airplanes	A300-32A0447	April 22, 2004
A300 B4-600, B4-600R, and F4-600R Series Airplanes, and Model A300 C4-605R Variant F airplanes (Collectively called A300-600 series airplanes)	A300-32A6093	April 22, 2004
A310 series airplanes	A310-32A2132	April 22, 2004

**Torque Load Inspection and Corrective Action**

(h) At the latest of the compliance times specified in paragraphs (h)(1), (h)(2), and (h)(3) of this AD, do an inspection of the torque load of the nuts of the NLG shock absorber-to-main barrel attachment bolts in accordance with the Accomplishment Instructions of the applicable Airbus service bulletin listed in Table 2 of this AD. Depending on the torque load value found during the inspection, before further flight: Retighten the bolt(s) or replace the discrepant bolt(s), or replace all bolts, in accordance with the applicable Airbus service bulletin listed in Table 2 of this AD.

Thereafter, repeat the torque load inspection at intervals not to exceed 3,200 flight cycles or 30 months time-in-service accumulated by the NLG, whichever occurs first.

(1) Within 3,200 flight cycles or 30 months since NLG's first flight, whichever occurs first.

(2) Within 3,200 flight cycles or 30 months accumulated by the NLG since installation of new bolts, whichever occurs first.

(3) Within 3,200 flight cycles or 30 months after the effective date of this AD, whichever occurs first.

**Table 2 - Service Information for Inspections**

<b>For Model -</b>	<b>Use Airbus Mandatory Service Bulletin -</b>	<b>Revision level -</b>	<b>Dated -</b>
A300 series airplanes	A300-32-0447	01	June 1, 2007
A300-600 series airplanes	A300-32-6093	01	June 1, 2007
A310 series airplanes	A310-32-2132	01	June 1, 2007

(i) After accomplishment of the initial inspection in accordance with paragraph (h) of this AD, as applicable, the repetitive inspections of paragraph (g) of this AD are no longer required.

**Optional Terminating Action**

(j) For airplanes on which the modification of the shock absorber-to-barrel attachment has been done in accordance with the applicable service bulletin listed in Table 3 of this AD, the requirements of this AD are no longer required, as long as that modification remains installed.

**Table 3 – Service Information for Optional Terminating Action**

<b>For Model -</b>	<b>Use Airbus Service Bulletin -</b>	<b>Dated -</b>
A300 series airplanes	A300-32-0453	June 1, 2007
A300-600 series airplanes	A300-32-6099	June 1, 2007
A310 series airplanes	A310-32-2135	June 1, 2007

**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, 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: Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-2125; 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**

(1) Refer to MCAI EASA Airworthiness Directive 2008-0052R1, dated June 30, 2008; and the service information identified in Tables 1, 2, and 3 of this AD; for related information.

**Material Incorporated by Reference**

(m) You must use the applicable service information contained in Table 4 of this AD to do the actions required by this AD, unless the AD specifies otherwise. If you accomplish the optional terminating actions specified by this AD, you must use the applicable service information identified in Table 5 of this AD to perform those actions, 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 service information identified in this AD, contact Airbus SAS–EAW (Airworthiness Office), 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; e-mail: [account.airworth-eas@airbus.com](mailto:account.airworth-eas@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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

**Table 4 – Material Incorporated by Reference for Actions Required in this AD**

<b>Document</b>	<b>Revision</b>	<b>Date</b>
Airbus All Operator Telex A300-32A0447	Original	April 22, 2004
Airbus All Operator Telex A300-32A6093	Original	April 22, 2004
Airbus All Operator Telex A310-32A2132	Original	April 22, 2004
Airbus Mandatory Service Bulletin A300-32-0447, excluding Appendix 01	01	June 1, 2007
Airbus Mandatory Service Bulletin A300-32-6093, excluding Appendix 01	01	June 1, 2007
Airbus Mandatory Service Bulletin A310-32-2132, excluding Appendix 01	01	June 1, 2007

**Table 5 – Material Incorporated by Reference for the Optional Terminating Action in this AD**

<b>Airbus Service Bulletin -</b>	<b>Dated -</b>
A300-32-0453	June 1, 2007
A300-32-6099	June 1, 2007
A310-32-2135	June 1, 2007

Issued in Renton, Washington, on September 16, 2010.

Robert D. Breneman,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.