

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2008-0979; Directorate Identifier 2008-NM-079-AD; Amendment 39-16051; AD 2009-21-12]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Model A300-600 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:

Further to initial qualification tests of the spoiler actuators currently installed in position No. 3 to 7 on A300-600 and A300-600ST aircraft fleet, a life limit [of 55,750 flight hours] has been defined by the actuator manufacturer. Initially, this life limit had no repercussions, as it was situated well beyond the initial Design Service Goal (DSG) of the aircraft. However, due to the Extended Service Goal (ESG) activities, the spoiler actuator life limit can be reached in service, and therefore the spoiler actuators must be replaced before exceeding this limit.

In order to mitigate the risk to have aircraft on which the three hydraulic circuits would be impacted by affected spoiler actuators, which could result in the loss of controllability of the aircraft, this Airworthiness Directive (AD) requires actions to ensure that at least the level of safety of one hydraulic circuit will be restored within an acceptable timeframe.

\* \* \* \* \*

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

**DATES:** This AD becomes effective December 1, 2009.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of December 1, 2009.

**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 September 17, 2008 (73 FR 53768). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

Further to initial qualification tests of the spoiler actuators currently installed in position No. 3 to 7 on A300-600 and A300-600ST aircraft fleet, a life limit [of 55,750 flight hours] has been defined by the actuator manufacturer. Initially, this life limit had no repercussions, as it was situated well beyond the initial Design Service Goal (DSG) of the aircraft. However, due to the Extended Service Goal (ESG) activities, the spoiler actuator life limit can be reached in service, and therefore the spoiler actuators must be replaced before exceeding this limit.

In order to mitigate the risk to have aircraft on which the three hydraulic circuits would be impacted by affected spoiler actuators, which could result in the loss of controllability of the aircraft, this Airworthiness Directive (AD) requires actions to ensure that at least the level of safety of one hydraulic circuit will be restored within an acceptable timeframe.

EASA AD 2007-0245, issued on 05 September 2007 as an interim action, is superseded by the present [EASA] AD.

Corrective actions include replacing the spoiler actuator with a serviceable unit. 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 comments received.

### **Requests To Withdraw NPRM**

Air Transport Association (ATA) on behalf of its member American Airlines (AA) asks that the NPRM be withdrawn until a workable method of determining flight hours on the spoiler actuator pistons can be established. AA provides the following reasons for its request to withdraw the NPRM:

- Airbus Mandatory Service Bulletin A300-27A6062, dated July 6, 2007 (cited in the NPRM), specifies that operators contact Smiths Industries for guidance in determining the priority serial number to be used to identify the actuators. AA has done this for numerous actuators, and in each case, Smiths was unable to provide the guidance requested. Therefore, AA is unable to provide any meaningful data to Airbus.

We find that clarification of the guidance on identifying the actuators is necessary. Airbus Mandatory Service Bulletin A300-27A6062, dated July 6, 2007, was issued to provide instructions for inspecting the spoiler actuators. Airbus Mandatory Service Bulletin A300-27-6060, dated February 18, 2008 (cited in the NPRM), was issued to provide instructions for conducting follow-on actions, depending on the inspection results. In addition, Smiths Industries issued Service Information Letters SIL 27-01, dated June 2007; and SIL 27-02, dated May 2007; to provide operators with procedures to identify the spoiler actuators. After the spoiler actuators are identified, certain actions specified in Airbus Mandatory Service Bulletin A300-27-6060, dated February 18, 2008, are provided if the flight hours cannot be established; however, those flight hours can also be calculated using the subject service information letters.

We have included a new Note 1 in the AD (and re-identified subsequent notes) specifying that Smiths Service Information Letters SIL 27-01, dated June 2007; and SIL 27-02, dated May 2007; may be used as additional sources of service information to calculate the total flight hours accumulated on each spoiler actuator.

- AA also notes that, in the case where no records are available, and identification cannot be done, Airbus Mandatory Service Bulletin A300-27A6062, dated July 6, 2007, states that the Inspection Report Sheet should be filled in with the status "unknown." The majority of the serial number identification plates is no longer installed on the actuators, and therefore, is considered to be "unknown" and will require replacement. According to AA, this will cause an undue burden on AA and will not increase the level of safety.

We disagree with the commenter. Airbus Mandatory Service Bulletin A300-27A6062, dated July 6, 2007, refers to Smiths Service Information Letter SIL 27-01, dated June 2007, which provides more than one option for identifying the spoiler actuators. The serial number may have been etched on the actuator in at least one of three places, the cylinder body, the eye end assembly, or the piston assembly. We have made no change to the AD in this regard.

- AA states that there are no data to support the premise that an individual actuator may have accumulated more flight hours than an operators'-high-time airplanes. For this reason, if the NPRM is adopted, AA proposes that operators be allowed to use fleet high time to assign the accumulated flight hours to each actuator.

We disagree with the commenter. If an airline acquired airplanes from another airline, to obtain fleet high time it would have to take into account the flight hours of the highest flight-hour airplane of all the airlines that the company is operating. This method would be difficult to calculate for this reason. We have made no change to the AD in this regard.

FedEx Express also asks that the NPRM be withdrawn and provides the following reasons:

- FedEx states that the life limit of 55,750 total flight hours is theoretical based on the testing of three spoiler actuators prior to certification of the Model A300-600 airplane. FedEx adds that at the request of Airbus and operators, the original equipment manufacturer (OEM) of the spoiler actuator is currently conducting fatigue testing to determine whether it is possible to extend that theoretical life limit on the spoiler actuators to over 80,000 flight hours beginning in mid-2009. If the NPRM is not withdrawn, FedEx recommends delaying any mandated service action until the fatigue testing currently in process by the OEM is complete. FedEx adds that if the new fatigue life limit is more than 75,000 flight hours for the new A300-600 DSG, it could prove that the NPRM is unnecessary. FedEx also states that spoiler actuators have not been life-limited parts since the beginning of the Model A300-600 program; therefore, operators have not tracked the flight time accumulated on the spoiler actuators accurately.

We agree that it may be necessary to conduct fatigue testing to eventually extend the life limit on the spoiler actuators. However, we do not agree to withdraw the NPRM until the fatigue testing

currently in process by the OEM is complete. Any additional delay for further testing would result in an unacceptable level of risk, because doing so would allow the unsafe condition to continue for an indefinite length of time. However, under the provisions of paragraph (g)(1) of this AD, we will consider requests for approval of an alternative method of compliance if sufficient data are submitted to substantiate that the new fatigue life limit would provide an acceptable level of safety. We have made no change to the AD in this regard.

- FedEx and other operators also discovered that the identification labels affixed to spoiler actuators were attached with poor adhesive, which dissolved when exposed to hydraulic fluids and petroleum-based de-ice fluids. Therefore, many actuators cannot be identified while installed on the airplane because the labels are missing, so a shop visit is necessary to accomplish the identification, which is costly and time consuming because of turnaround times in excess of 45 days for each actuator. FedEx adds that, due to these factors, it may need an excess number of "new" OEM spoiler actuators to maintain compliance with the NPRM as currently written.

We acknowledge the commenter's concern and provide the following clarification. As noted previously, Airbus Mandatory Service Bulletin A300-27A6062, dated July 6, 2007, refers to Smiths Service Information Letter SIL 27-01, dated June 2007, which provides more than one option for identifying the spoiler actuators. The serial number may have been etched on the actuator in at least one of three places—the cylinder body, the eye end assembly, or the piston assembly. In addition, we have discussed the turnaround times for a shop visit with the OEM and were told there was a miscommunication between the OEM and FedEx. The OEM has already taken steps to work with its suppliers to improve the efficiency in processing these units and reduce the turnaround time. The OEM also informed us that it can supply FedEx with the number of actuators FedEx deems necessary in order to comply with the AD. We have made no change to the AD in this regard.

- In August 2007, FedEx completed an inspection/identification of its spoiler actuators in accordance with Airbus Mandatory Service Bulletin A300-27A6062, dated July 6, 2007. FedEx notes that since that time many actuators have been removed and replaced through normal maintenance visits, and are tracked by an approved record-keeping system. If the NPRM is not withdrawn, FedEx recommends that we consider the timeframe between the proposed inspections and follow-on cleaning of a hydraulic system and record-keeping.

We infer that the commenter is asking that the compliance time be extended for certain actions if the AD is not withdrawn; we do not agree. Although the commenter's record-keeping may be accurate, record-keeping varies among operators, and our compliance time takes this into consideration. In developing an appropriate compliance time for this AD, we considered not only the safety implications, but the manufacturer's recommendations, and the practical aspect of accomplishing the actions within an interval of time that corresponds to typical scheduled maintenance for affected operators. However, under the provisions of paragraph (g)(1) of the AD, we may consider requests for adjustments to the compliance time if data are submitted to substantiate that such an adjustment would provide an acceptable level of safety. We have made no change to the AD in this regard.

- FedEx has used the mechanism specified in Airbus Mandatory Service Bulletin A300-27-6060, dated February 18, 2008, to calculate flight hours on specific spoiler actuators with known manufacturer serial numbers. FedEx adds that the Airbus Mandatory Service Bulletin A300-27-6060, dated February 18, 2008, in combination with Smiths Service Information Letter SIL 27-02, dated May 2007, provides the essential data necessary to accomplish such calculations. If the NPRM is not withdrawn, FedEx recommends referencing Airbus Mandatory Service Bulletin A300-27-6060, dated February 18, 2008; and Smiths Service Information Letter SIL 27-02, dated May 2007; as sources of information for the calculation of flight hours.

We agree with the commenter that the subject service information should be referenced. Paragraph 3.B.(1)(a) of Airbus Mandatory Service Bulletin A300-27-6060, dated February 18, 2008, provides the information necessary to calculate flight hours. That paragraph also refers to Smiths Service Information Letter SIL 27-02, dated May 2007, as an additional source of service information for calculating flight hours. As noted previously, we have included a new Note 1 in the AD

specifying that Smiths Service Information Letters SIL 27-01, dated June 2007; and SIL 27-02, dated May 2007; may be used as additional sources of service information to identify the total flight hours accumulated on each spoiler actuator.

### **Request for Clarification of Certain Requirements**

United Parcel Service (UPS) states that the limitation specifying not to interchange or replace actuators on more than two hydraulic circuits at the same time is not presently in its Airbus A300 Aircraft Maintenance Manual (AMM). UPS requests verification that this requirement is limited to action required when all circuits have spoiler actuators installed having part numbers (P/N) P376A0002-05, -06, -07, or -09, and P/N P725A0001-00 that exceed 55,750 flight hours, or if the intent of the NPRM is to add this restriction to the existing Airbus A300 AMM.

We acknowledge the commenter's concern and provide the following clarification. The language specified in the Airbus A300 AMM already recommends not working on redundant components at the same time. In addition, Airbus added within the limitation in the service bulletin not to interchange or replace actuators on more than two hydraulic circuits at the same time; therefore, it does not need to be included in the Airbus A300 AMM. We have made no change to the AD in this regard.

UPS also asks for clarification of whether the NPRM is establishing a 55,750 flight-hour life limit on every Smiths spoiler actuator installed having affected part numbers, or whether the intention is to maintain one hydraulic circuit with spoiler actuators that do not exceed 55,750 total flight hours.

We acknowledge the commenter's concern and provide the following clarification. As specified in paragraph (f)(4) of this AD, each airplane must continue to have at least one hydraulic circuit fitted with spoiler actuators that do not exceed 55,750 total flight hours. We have made no change to the AD in this regard.

### **Explanation of Change to Applicability**

We have revised the applicability in paragraph (c) of this final rule to identify model designations as published in the most recent type certificate data sheet for the affected models.

### **Explanation of Change to Reporting Requirement**

This final rule does not include the reporting requirement specified in paragraph (1) of the MCAI. The MCAI carried this requirement forward from European Aviation Safety Agency (EASA) Airworthiness Directive 2007-0245, dated September 5, 2007. We previously determined that no action was required on our part regarding EASA AD 2007-0245. Therefore, we have removed the reporting requirement specified in paragraph (g)(3) of this AD.

### **Conclusion**

We reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD with the changes described previously. We 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 135 products of U.S. registry. We also estimate that it will take about 8 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$80 per work-hour. Required parts will cost about \$32,000 per product. Where the service information lists required parts costs that are covered under warranty, we have assumed that there will be no charge for these parts. As we do not control warranty coverage for affected parties, some parties may incur costs higher than estimated here. Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$4,406,400, or \$32,640 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:



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**2009-21-12 Airbus:** Amendment 39-16051. Docket No. FAA-2008-0979; Directorate Identifier 2008-NM-079-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective December 1, 2009.

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to Airbus Model A300 B4-601, B4-603, B4-605R, B4-620, B4-622, B4-622R, F4-605R, F4-622R, C4-605R Variant F airplanes, all serial numbers, certificated in any category; on which Smith spoiler actuators having part number (P/N) P376A0002-05, -06, -07, or -09, or P/N P725A0001-00 are installed.

**Subject**

- (d) Air Transport Association (ATA) of America Code 27: Flight controls.

**Reason**

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

Further to initial qualification tests of the spoiler actuators currently installed in position No. 3 to 7 on A300-600 and A300-600ST aircraft fleet, a life limit [of 55,750 flight hours] has been defined by the actuator manufacturer. Initially, this life limit had no repercussions, as it was situated well beyond the initial Design Service Goal (DSG) of the aircraft. However, due to the Extended Service Goal (ESG) activities, the spoiler actuator life limit can be reached in service, and therefore the spoiler actuators must be replaced before exceeding this limit.

In order to mitigate the risk to have aircraft on which the three hydraulic circuits would be impacted by affected spoiler actuators, which could result in the loss of controllability of the aircraft, this Airworthiness Directive (AD) requires actions to ensure that at least the level of safety of one hydraulic circuit will be restored within an acceptable timeframe.

EASA AD 2007-0245, issued on 05 September 2007 as an interim action, is superseded by the present [EASA] AD.

Corrective actions include replacing the spoiler actuator with a serviceable unit.

## **Actions and Compliance**

(f) Unless already done: Within 700 flight hours after the effective date of this AD, do the following actions.

(1) Identify the total flight hours accumulated on each spoiler actuator at positions 3 through 7 on the left- and right-hand sides of the airplane (FIN 22CP/23CP, 24CP/25CP, 26CP/27CP, 60CP/61CP, and 62CP/63CP), in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A300-27A6062, dated July 6, 2007.

Note 1: Smiths Service Information Letters SIL 27-01, dated June 2007; and SIL 27-02, dated May 2007; may be used as additional sources of guidance to identify the total flight hours accumulated on each spoiler actuator.

(2) For airplanes on which the status of any spoiler actuator is unknown (unknown number of accumulated flight hours, unknown date of manufacture, and/or unknown serial number) the actuator must be considered as having exceeded 55,750 total flight hours.

(3) For airplanes on which all three hydraulic circuits have a spoiler actuator that has accumulated or exceeds 55,000 total flight hours: Before the accumulation of 55,750 total flight hours or within 700 flight hours after the effective date of this AD, whichever occurs later, on at least one hydraulic circuit, interchange the spoiler actuator with a serviceable unit from another hydraulic circuit, or replace the spoiler actuator with a serviceable unit, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A300-27-6060, dated February 18, 2008.

(4) For airplanes on which the actions required by paragraph (f)(1) of this AD, and, as applicable, paragraph (f)(3) of this AD have been accomplished, each airplane must continue to have at least one hydraulic circuit fitted with spoiler actuators that do not exceed 55,750 total flight hours.

Note 2: For the purposes of this AD, a serviceable unit is a unit that has accumulated less than 55,750 flight hours.

(5) The operator must not interchange or replace spoiler actuators on more than two hydraulic circuits at the same time. This will mitigate the risk of having a malfunction on the three hydraulic systems at the same time.

## **FAA AD Differences**

Note 3: This AD differs from the MCAI and/or service information as follows:

This AD does not include the reporting requirement specified in paragraph (1) of the MCAI. The MCAI carried this requirement forward from European Aviation Safety Agency (EASA) Airworthiness Directive 2007-0245, dated September 5, 2007. We previously determined that no action was required on our part regarding EASA AD 2007-0245.

## **Other FAA AD Provisions**

(g) 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

appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(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.

### **Related Information**

(h) Refer to MCAI EASA Airworthiness Directive 2008-0058, dated March 20, 2008; and Airbus Mandatory Service Bulletin A300-27-6060, dated February 18, 2008; and Airbus Mandatory Service Bulletin A300-27A6062, dated July 6, 2007; for related information.

### **Material Incorporated by Reference**

(i) You must use Airbus Mandatory Service Bulletin A300-27-6060, excluding Appendix 1, dated February 18, 2008; and Airbus Mandatory Service Bulletin A300-27A6062, excluding Appendix 1, dated July 6, 2007; as applicable; 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 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 or 425-227-1152.

(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).

Issued in Renton, Washington, on October 7, 2009.

Jeffrey E. Duven,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.