

[Federal Register: October 16, 2009 (Volume 74, Number 199)]
[Rules and Regulations]
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[DOCID:fr16oc09-4]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2009-0907; Directorate Identifier 2009-NM-072-AD; Amendment 39-16042; AD 2009-21-05]

RIN 2120-AA64

Airworthiness Directives; Airbus Model A340-200 and -300 Series Airplanes

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

ACTION: Final rule; request for comments.

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:

An A340-300 aeroplane experienced the opening of the engine n°3 lower left thrust reverser pivoting door during climb.

This event was the result of a primary lock malfunction and non-engagement of the secondary lock.

* * * * *

Deployment of one thrust reverser door in flight and during the take-off constitutes an unsafe condition.

* * * * *

Deployment of one thrust reverser door in flight or during take-off could result in reduced controllability of the airplane. This AD requires actions that are intended to address the unsafe condition described in the MCAI.

DATES: This AD becomes effective November 2, 2009.

The Director of the Federal Register approved the incorporation by reference of a certain document listed in the AD as of November 2, 2009.

We must receive comments on this AD by November 16, 2009.

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-40, 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

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 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. Comments will be available in the AD docket shortly after receipt.

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

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2009-0063, dated March 11, 2009, and corrected March 20, 2009 (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

An A340-300 aeroplane experienced the opening of the engine n°3 lower left thrust reverser pivoting door during climb.

This event was the result of a primary lock malfunction and non-engagement of the secondary lock.

Preliminary investigations have revealed two main findings:

- The primary lock lever arm of the affected door was contaminated with lubrication fluid, which is a known contributor to incorrect operation;
- The actuator of the deployed door was found with 3 shim sets installed whereas the system is designed for a maximum of one shim set. It is considered that installation of three shim sets has a detrimental effect on the secondary lock capacity to engage in case of primary lock failure.

Deployment of one thrust reverser door in flight and during the take-off constitutes an unsafe condition.

In order to ensure that the fleet is clear from unauthorized actuator shimming configurations which may lead to non-engagement of the secondary lock, EASA AD 2008-0074 required a one-time visual inspection to check that no more than one shim set per pivoting door actuator was installed.

Another A340-300 experienced a similar event after the publication of AD 2008-0074.

Airbus and CFM are currently investigating the root cause.

As a consequence, Airbus has defined a one-time inspection programme [for defects] to decrease the thrust reverser sensitivity to primary lock release.

This AD requires the accomplishment of a one-time [detailed] inspection programme which consists in [the following actions]:

- Primary lock inspection [for improper locking],
- Pivoting door seal inspection [for defective seal],
- Pivoting door actuator gimbal gap inspection [for gaps exceeding limits],
- Pivoting door hydraulic actuators inspection to check that one shim set is installed (consequently [EASA] AD 2008-0074, which required to check the installation of one shim set only per pivoting door actuator, is superseded by this [EASA] AD [2009-0063]),
- Pivoting door adjustment [to ensure proper operation of pivoting door], and their associated corrective actions.

Further mandatory action is foreseen (introduction of Additional Return Line restrictor on external engines).

* * * * *

Deployment of one thrust reverser door in flight or during take-off could result in reduced controllability of the airplane. Corrective actions include replacing with new or serviceable parts the thrust reverser pivoting door primary lock, the thrust reverser pivoting door, and the thrust reverser pivoting door actuator; removing excess shims from the thrust reverser pivoting door actuator or adding a shim; and adjusting the thrust reverser pivoting door. You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

Airbus has issued All Operators Telex A340-78A4040, dated February 18, 2009. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA's Determination and Requirements of This AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are issuing this AD because we evaluated all pertinent information and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

There are no products of this type currently registered in the United States. However, this rule is necessary to ensure that the described unsafe condition is addressed if any of these products are placed on the U.S. Register in the future.

Differences Between the 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 FAA policies. Any such differences are highlighted in a Note within the AD.

FAA's Determination of the Effective Date

Since there are currently no domestic operators of this product, notice and opportunity for public comment before issuing this AD are unnecessary.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2009-0907; Directorate Identifier 2009-NM-072-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about 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

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.

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:



2009-21-05 Airbus: Amendment 39-16042. Docket No. FAA-2009-0907; Directorate Identifier 2009-NM-072-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective November 2, 2009.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to Airbus Model A340-211, -212, and -213 series airplanes; and Model A340-311, -312, and -313 series airplanes; certificated in any category; all manufacturer serial numbers.

Subject

- (d) Air Transport Association (ATA) of America Code 78: Engine exhaust.

Reason

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

An A340-300 aeroplane experienced the opening of the engine n°3 lower left thrust reverser pivoting door during climb.

This event was the result of a primary lock malfunction and non-engagement of the secondary lock.

Preliminary investigations have revealed two main findings:

- The primary lock lever arm of the affected door was contaminated with lubrication fluid, which is a known contributor to incorrect operation;
- The actuator of the deployed door was found with 3 shim sets installed whereas the system is designed for a maximum of one shim set. It is considered that installation of three shim sets has a detrimental effect on the secondary lock capacity to engage in case of primary lock failure. Deployment of one thrust reverser door in flight and during the take-off constitutes an unsafe condition.

In order to ensure that the fleet is clear from unauthorized actuator shimming configurations which may lead to non-engagement of the secondary lock, EASA AD 2008-0074 required a one-time visual inspection to check that no more than one shim set per pivoting door actuator was installed.

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As a consequence, Airbus has defined a one-time inspection programme [for defects] to decrease the thrust reverser sensitivity to primary lock release.

This AD requires the accomplishment of a one-time [detailed] inspection programme which consists in [the following actions]:

- Primary lock inspection [for improper locking],
- Pivoting door seal inspection [for defective seal],
- Pivoting door actuator gimbal gap inspection [for gaps exceeding limits],
- Pivoting door hydraulic actuators inspection to check that one shim set is installed (consequently [EASA] AD 2008-0074, which required to check the installation of one shim set only per pivoting door actuator, is superseded by this [EASA] AD [2009-0063]),
- Pivoting door adjustment [to ensure proper operation of pivoting door], and their associated corrective actions.

Further mandatory action is foreseen (introduction of Additional Return Line restrictor on external engines).

* * * * *

Deployment of one thrust reverser door in flight or during take-off could result in reduced controllability of the airplane. Corrective actions include replacing with new or serviceable parts the thrust reverser pivoting door primary lock, the thrust reverser pivoting door, and the thrust reverser pivoting door actuator; removing excess shims from the thrust reverser pivoting door actuator or adding a shim; and adjusting the thrust reverser pivoting door.

Actions and Compliance

(f) Unless already done, do the following actions.

(1) Within 1,800 flight hours after the effective date of this AD, do the detailed inspections for the discrepancies identified in paragraphs (f)(1)(i), (f)(1)(ii), (f)(1)(iii), (f)(1)(iv), and (f)(1)(v) of this AD, in accordance with the applicable paragraph of Airbus All Operators Telex A340-78A4040, dated February 18, 2009 ("the AOT").

(i) Improper locking of the thrust reverser pivoting door primary lock as specified in paragraph 4.2.1 of the AOT.

(ii) Defects of the thrust reverser pivoting door seal as specified in paragraph 4.2.2 of the AOT.

(iii) Gaps exceeding limits of the thrust reverser pivoting door actuator gimbal as specified in paragraph 4.2.3 of the AOT.

(iv) Incorrect number of shim sets is installed on the thrust reverser pivoting door hydraulic actuator as specified in paragraph 4.2.4 of the AOT.

(v) Incorrect adjustment of the thrust reverser pivoting door as specified in paragraph 4.2.5 of the AOT.

(2) If any discrepancy is found during the inspections required by paragraph (f)(1) of this AD, before further flight, do all applicable corrective actions required by paragraphs (f)(2)(i), (f)(2)(ii), (f)(2)(iii), (f)(2)(iv), and (f)(2)(v) of this AD, in accordance with the applicable paragraph of Airbus All Operators Telex A340-78A4040, dated February 18, 2009 ("the AOT"); except that if a replacement actuator is not available, the airplane may be dispatched with the thrust reverser inhibited per Master Minimum Equipment List reference 2.10.

- (i) Replace the thrust reverser pivoting door primary lock with a new or serviceable thrust reverser pivoting door primary lock in accordance with paragraph 4.2.1 of the AOT.
- (ii) Replace the thrust reverser pivoting door with a new or serviceable thrust reverser pivoting door in accordance with paragraph 4.2.2 of the AOT.
- (iii) Replace the thrust reverser pivoting door actuator with a new or serviceable thrust reverser pivoting door actuator in accordance with paragraph 4.2.3 of the AOT.
- (iv) Remove excess shims from the thrust reverser pivoting door actuator or add a shim in accordance with paragraph 4.2.4 of the AOT.
- (v) Adjust the thrust reverser pivoting door in accordance with paragraph 4.2.5 of the AOT.

FAA AD Differences

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

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: 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. 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, the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

Related Information

(h) Refer to Mandatory Continuing Airworthiness Information (MCAI) European Aviation Safety Agency (EASA) Airworthiness Directive 2009-0063, dated March 11, 2009, and corrected March 20, 2009; and Airbus All Operators Telex A340-78A4040, dated February 18, 2009; for related information.

Material Incorporated by Reference

(i) You must use Airbus All Operators Telex A340-78A4040, dated February 18, 2009, to do the actions required by this AD, unless the AD specifies otherwise. (The issue date of this document is specified only on the first page of the document.)

(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 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.

Issued in Renton, Washington, on September 30, 2009.

Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.