

[Federal Register Volume 76, Number 229 (Tuesday, November 29, 2011)]  
[Rules and Regulations]  
[Pages 73486-73489]  
From the Federal Register Online via the Government Printing Office [www.gpo.gov]  
[FR Doc No: 2011-30229]

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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2011-1232; Directorate Identifier 2011-NM-039-AD; Amendment 39-16873; AD 2011-24-09]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Airbus Airplanes**

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

**ACTION:** Final rule; request for comments.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Airbus Model A340-200 and -300 series airplanes. 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:

[T]he FAA published SFAR 88 (Special Federal Aviation Regulation 88) [(66 FR 23086, May 7, 2001)].

By mail referenced 04/00/02/07/01-L296 of March 4th, 2002 and 04/00/02/07/03-L024 of February 3rd, 2003 the JAA [Joint Aviation Authorities] recommended to the National Aviation Authorities (NAA) the application of a similar regulation.

The aim of this [EASA] regulation is to require \* \* \* a definition review against explosion hazards.

\* \* \* \* \*

This AD requires inspections to verify electrical bonding to prevent the potential of ignition sources inside fuel tanks, which, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane. This AD requires actions that are intended to address the unsafe condition described in the MCAI.

**DATES:** This AD becomes effective December 14, 2011.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of December 14, 2011.

We must receive comments on this AD by January 13, 2012.

**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 W12-140, 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 2010-0232, dated November 12, 2010 (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

[T]he FAA published SFAR 88 (Special Federal Aviation Regulation 88) [(66 FR 23086, May 7, 2001)].

By mail referenced 04/00/02/07/01-L296 of March 4th, 2002 and 04/00/02/07/03-L024 of February 3rd, 2003 the JAA [Joint Aviation Authorities] recommended to the National Aviation Authorities (NAA) the application of a similar regulation.

The aim of this regulation is to require all holders of type certificates for transport aircraft certified after 01 January 1958 with a capacity of 30 passengers or more, or a payload of 3,402 kg or more, to carry out a definition review against explosion hazards.

To be compliant with SFAR88/JAA INT/POL 25/12 requirements, this [EASA] AD requires, for operators who have already embodied the Revision 03 or any previous revision of Airbus SB A340-28-4097 on aeroplanes which were previously in SB Configurations 02 or 03 [required by FAA AD 2008-25-02, Amendment 39-15760 (73 FR 75307, December 11, 2008)], an inspection to verify if the electrical bonding of the water drain system (Trim Tank) and the electrical bonding of the ventilation intake system were correctly accomplished or need additional work associated to the aeroplane configuration.

\* \* \* \* \*

Additional work could involve modifying or installing certain bonding points (such as pipe clamps, screws, attachment fittings, restrictor valves, flame arrestors, and pipes); doing electrical bonding of the wing fuel pumps, the water drain system between certain ribs, a water drain system and the

ventilation intake system; depending on configuration. The additional work required by this AD is in addition to the requirements of AD 2008-25-02, Amendment 39-15760 (73 FR 75307, December 11, 2008). The unsafe condition is the potential of ignition sources inside fuel tanks, which, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane. You may obtain further information by examining the MCAI in the AD docket.

The FAA has examined the underlying safety issues involved in fuel tank explosions on several large transport airplanes, including the adequacy of existing regulations, the service history of airplanes subject to those regulations, and existing maintenance practices for fuel tank systems. As a result of those findings, we issued a regulation titled "Transport Airplane Fuel Tank System Design Review, Flammability Reduction and Maintenance and Inspection Requirements" (66 FR 23086, May 7, 2001). In addition to new airworthiness standards for transport airplanes and new maintenance requirements, this rule included Special Federal Aviation Regulation No. 88 ("SFAR 88," Amendment 21-78, and subsequent Amendments 21-82 and 21-83).

Among other actions, SFAR 88 (66 FR 23086, May 7, 2001) requires certain type design (i.e., type certificate (TC) and supplemental type certificate (STC)) holders to substantiate that their fuel tank systems can prevent ignition sources in the fuel tanks. This requirement applies to type design holders for large turbine-powered transport airplanes and for subsequent modifications to those airplanes. It requires them to perform design reviews and to develop design changes and maintenance procedures if their designs do not meet the new fuel tank safety standards. As explained in the preamble to the rule, we intended to adopt airworthiness directives to mandate any changes found necessary to address unsafe conditions identified as a result of these reviews.

In evaluating these design reviews, we have established four criteria intended to define the unsafe conditions associated with fuel tank systems that require corrective actions. The percentage of operating time during which fuel tanks are exposed to flammable conditions is one of these criteria. The other three criteria address the failure types under evaluation: Single failures, single failures in combination with a latent condition(s), and in-service failure experience. For all four criteria, the evaluations included consideration of previous actions taken that may mitigate the need for further action.

The Joint Aviation Authorities (JAA) has issued a regulation that is similar to SFAR 88 (66 FR 23086, May 7, 2001). (The JAA is an associated body of the European Civil Aviation Conference (ECAC) representing the civil aviation regulatory authorities of a number of European States who have agreed to co-operate in developing and implementing common safety regulatory standards and procedures.) Under this regulation, the JAA stated that all members of the ECAC that hold type certificates for transport category airplanes are required to conduct a design review against explosion risks.

We have determined that the actions identified in this AD are necessary to reduce the potential of ignition sources inside fuel tanks, which, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane.

### **Relevant Service Information**

Airbus has issued Mandatory Service Bulletin A340-28-4097, Revision 05, including Appendix 1, dated June 3, 2010. 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-2011-1232; Directorate Identifier 2011-NM-039-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**

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.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39–AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

**Authority:** 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new AD:



**2011-24-09 Airbus:** Amendment 39-16873. Docket No. FAA-2011-1232; Directorate Identifier 2011-NM-039-AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective December 14, 2011.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Airbus Model A340-211, -212, -213, -311, -312 and -313 airplanes, certificated in any category, all manufacturer serial numbers, on which Airbus modification 41600 has been embodied in production and Airbus Service Bulletin A340-28-4097, dated June 14, 2004; Revision 01, dated March 3, 2005; Revision 02, dated August 16, 2006; or Revision 03, dated July 3, 2007; has been embodied in service, except airplanes on which Airbus modification 49135 has been embodied in production.

**Subject**

(d) Air Transport Association (ATA) of America Code 28: Fuel.

**Reason**

(e) The mandatory continued airworthiness information (MCAI) states:  
[T]he FAA published SFAR 88 (Special Federal Aviation Regulation 88) [(66 FR 23086, May 7, 2001)].

By mail referenced 04/00/02/07/01-L296 of March 4th, 2002 and 04/00/02/07/03-L024 of February 3rd, 2003 the JAA [Joint Aviation Authorities] recommended to the National Aviation Authorities (NAA) the application of a similar regulation.

The aim of this [EASA] regulation is to require \* \* \* a definition review against explosion hazards.

\* \* \* \* \*

This AD requires inspections to verify electrical bonding to prevent the potential of ignition sources inside fuel tanks, which, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane.

**Compliance**

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

## **Actions**

(g) Within 24 months after the effective date of this AD, do a detailed inspection of the electrical bonding for the water drain system (trim tank) and the ventilation intake system to verify whether it is equivalent to the electrical bonding done in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A340-28-4097, Revision 05, including Appendix 1, dated June 3, 2010.

(h) If, during the inspection required by paragraph (g) of this AD, the electrical bonding of the water drain system and the ventilation intake system is found to be not equivalent to the electrical bonding done in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A340-28-4097, Revision 05, including Appendix 1, dated June 3, 2010: Within 24 months after the effective date of this AD, modify the electrical bonding associated with the airplane configuration in accordance with paragraph 3.B.(11) or 3.B.(12), as applicable, of the Accomplishment Instructions of Airbus Mandatory Service Bulletin A340-28-4097, Revision 05, including Appendix 1, dated June 3, 2010.

(i) A review of the airplane maintenance records is acceptable in lieu of the inspection required by paragraph (g) of this AD provided that the accomplishment of the electrical bonding for the water drain system (trim tank) and the ventilation intake system can be conclusively identified as performed in accordance with Airbus Mandatory Service Bulletin A340-28-4097, Revision 05, including Appendix 1, dated June 3, 2010.

## **FAA AD Differences**

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

## **Other FAA AD Provisions**

(j) 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: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1138; fax (425) 227-1149. Information may be 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. 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.

## **Related Information**

(k) Refer to Mandatory Continuing Airworthiness Information (MCAI) European Aviation Safety Agency (EASA) Airworthiness Directive 2010-0232, dated November 12, 2010; and Airbus Mandatory Service Bulletin A340-28-4097, Revision 05, including Appendix 1, dated June 3, 2010; for related information.

## **Material Incorporated by Reference**

(1) You must use Airbus Mandatory Service Bulletin A340-28-4097, Revision 05, including Appendix 1, dated June 3, 2010, 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–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; email [airworthiness.A330-A340@airbus.com](mailto:airworthiness.A330-A340@airbus.com); Internet <http://www.airbus.com>.

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call (425) 227-1221.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on November 14, 2011.

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