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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2005-20010; Directorate Identifier 2003-NM-224-AD; Amendment 39-13938; AD 2005-01-13]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Boeing Model 767-300 Series Airplanes**

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

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

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**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for certain Boeing Model 767-300 series airplanes. This AD requires repetitive functional tests and repetitive replacements of the auxiliary power unit (APU) and engine fire shutoff switches. This proposal also provides an optional terminating action for the repetitive functional tests and replacements. This AD is prompted by a report of the failure of the engine fire shutoff switch in the engine fire control module. We are issuing this AD to prevent mineral build-up on the APU and engine fire shutoff switches, which could lead to the switches failing to discharge fire suppressant to the affected fire zone and result in an uncontrolled engine or APU fire and consequent loss of the airplane.

**DATES:** Effective January 28, 2005. The incorporation by reference of a certain publication listed in the AD is approved by the Director of the Federal Register as of January 28, 2005.

We must receive comments on this AD by March 14, 2005.

**ADDRESSES:** Use one of the following addresses to submit comments on this AD.

- DOT Docket Web site: Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically.
- Government-wide rulemaking Web site: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
- Mail: Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, room PL-401, Washington, DC 20590.
- Fax: (202) 493-2251.
- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207.

You can examine the contents of this AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., room PL-401, on the plaza level of the Nassif Building, Washington, DC. This docket number is FAA-2005-20010; the directorate identifier for this docket is 2003-NM-224-AD.

## **Examining the Dockets**

You can examine the AD docket on the Internet at <http://dms.dot.gov>, or in person in the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the DOT street address stated in the ADDRESSES section. Comments will be available in the AD docket shortly after the Docket Management System (DMS) receives them.

**FOR FURTHER INFORMATION CONTACT:** Bernie Gonzalez, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6498; fax (425) 917-6590.

**SUPPLEMENTARY INFORMATION:** This AD is prompted by a report of the failure of the engine fire shutoff switch in the engine fire control module, which resulted in the inability to stow the thrust reverser on a certain Boeing Model 767 series airplane. On this installation the thrust reverser is operated by engine pneumatic bleed air, which is regulated by a spring-loaded-closed pressure regulating and shutoff valve (PRSOV). The PRSOV requires electrical power to stay open against the spring force. Its power supply is routed through the engine fire shutoff switch. The electrical contacts for the thrust reverser inside the engine fire shutoff switch are normally in the closed position. When the engine fire shutoff switch is pulled, during a fire or test, the power supplied to the thrust reverser PRSOV is removed and the valve closes off the engine bleed air, leaving the thrust reverser in the last commanded position. Investigation of the reported incident revealed that certain flight deck humidifiers distribute unfiltered air containing minerals from the potable water supply. The humidified air contaminates the auxiliary power unit (APU) and engine fire shutoff switches and may result in mineral build-up on switch contacts. The contamination within the fire shutoff switch gradually builds up, causing an increase in contact resistance. In the case of the thrust reverser, this contact resistance was high enough that the power supplied to the PRSOV was insufficient to hold the valve open. The PRSOV closed, leaving the thrust reverser in the deployed state. This same contamination can build up on the fire extinguishing switch contacts inside the APU and engine fire switches. Mineral build-up on the APU and engine fire shutoff switches, if not corrected, could lead to the switches failing to discharge fire suppressant to the affected fire zone and result in an uncontrolled engine or APU fire and consequent loss of the airplane.

## **Relevant Service Information**

We have reviewed Boeing Alert Service Bulletin 767-26A0127, dated July 17, 2003. The service bulletin describes the following procedures:

1. Doing repetitive functional tests of the APU and engine fire shutoff switches;
2. Doing repetitive replacements of the APU and engine fire shutoff switches with new or serviceable switches; and
3. Deactivating the Lucas (also known as TRW Systemes Aeronautiques) flight deck humidifier, part numbers (P/N) M01AA0101, M01AB0101, M01AB0102, or M01AB0103, which eliminates the need for the repetitive functional tests and replacements.

We have determined that accomplishment of the actions specified in the service information will adequately address the unsafe condition.

## **FAA's Determination and Requirements of This AD**

The unsafe condition described previously is likely to exist or develop on other airplanes of the same type design that may be registered in the U.S. at some time in the future. Therefore, this AD is being issued to prevent mineral build-up on APU and engine fire shutoff switches, which could lead to the switches failing to discharge fire suppressant to the affected fire zone and result in an uncontrolled engine fire and consequent loss of the airplane. This AD requires repetitive functional tests and repetitive replacements of the APU and engine fire shutoff switches. This proposal also provides an optional terminating action for the repetitive functional tests and replacements. You must do these actions in accordance with the service information described previously, except as discussed under "Differences Between the AD and the Service Bulletin."

## **Differences Between the AD and the Service Bulletin**

Operators should note that the service bulletin specifies the initial compliance time as "after the airplane has 12 calendar months of service but within 18 calendar months since airplane delivery. \* \* \*" This AD, however, specifies the initial compliance time as within 18 months since the date of issuance of the original Airworthiness Certificate or the original Export Certificate of Airworthiness. This decision is based on our determination that "since airplane delivery" may be interpreted differently by different operators. We find that this terminology is generally understood within the industry and records will always exist that establish these dates with certainty. This AD also omits reference to "after the airplane has 12 calendar months of service," since accomplishing the initial actions within 18 months of service provides an acceptable level of safety. Thus the compliance time specified in this AD includes any airplanes that may have been operating since delivery.

Operators should also note that the service bulletin states, "Operators who perform the 90 calendar day inspection and the 18 calendar month switch servicing can avoid the required test interval shown in Figure 1, by deactivation of the Lucas (also known as TRW Systemes Aeronautiques) Flight Deck Humidifier." This AD, however, specifies that if an operator deactivates the flight deck humidifier, all APU and engine fire shutoff switches must be replaced with new or serviceable switches before further flight. We have determined that if a flight deck humidifier is deactivated shortly before any required replacement or required functional test, it might be possible for any switch to have a latent type of failure due to the previous exposure to moisture and minerals from the humidifier. To address this unsafe condition, we have added a requirement to paragraph (j) of this AD to replace all switches after deactivating the flight deck humidifier. We have also added requirements to paragraph (k) of this AD to ensure an operator performs the repetitive functional tests and replacements of switches after reactivating the flight deck humidifier.

## **Costs of Compliance**

None of the airplanes affected by this action are on the U.S. Register. All airplanes affected by this AD are currently operated by non-U.S. operators under foreign registry; therefore, they are not directly affected by this AD action. However, we consider this AD necessary to ensure that the unsafe condition is addressed if any affected airplane is imported and placed on the U.S. Register in the future.

If an affected airplane is imported and placed on the U.S. Register in the future, the required functional test would take about 2 work hours per switch, at an average labor rate of \$65 per work hour. We estimate there are 3 switches per airplane. No parts would be required. Based on these figures, the estimated cost of the AD would be \$390 per airplane, per testing cycle.

If an affected airplane is imported and placed on the U.S. Register in the future, the required switch replacement would take about 2 work hours per switch, at an average labor rate of \$65 per

work hour. Required parts would cost about \$1,000 per switch, if replaced with a serviceable switch. Based on these figures, the estimated cost of the AD would be \$1,130 per switch, per replacement.

### **FAA's Determination of the Effective Date**

No airplane affected by this AD is currently on the U.S. Register. Therefore, providing notice and opportunity for public comment is unnecessary before this AD is issued, and this AD may be made effective in less than 30 days after it is published in the Federal Register.

### **Comments Invited**

Although this is a final rule that was not preceded by notice and an opportunity for public comment, we invite you to submit any written relevant data, views, or arguments regarding this AD. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2005-20010; Directorate Identifier 2003-NM-224-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the AD. We will consider all comments received by the closing date and may amend the AD in light of those comments.

We will post all comments we receive, without change, to <http://dms.dot.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of our docket Web site, anyone can find and read the comments in any of our dockets, including the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78), or you may visit <http://dms.dot.gov>.

### **Authority for This Rulemaking**

The FAA's authority to issue rules regarding aviation safety is found in Title 49 of the United States Code. 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.

This rulemaking is promulgated 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 AD.

### **Regulatory Findings**

We have 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 that the regulation:

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. See the ADDRESSES section for a location to examine the regulatory evaluation.

**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:

# AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "www.faa.gov"*

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The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2005-01-13 Boeing:** Amendment 39-13938. Docket No. FAA-2005-20010; Directorate Identifier 2003-NM-224-AD.

## Effective Date

- (a) This airworthiness directive (AD) becomes effective January 28, 2005.

## Affected ADs

- (b) None.

## Applicability

- (c) This AD applies to Boeing Model 767-300 series airplanes, certificated in any category; as listed in Boeing Alert Service Bulletin 767-26A0127, dated July 17, 2003.

## Unsafe Condition

- (d) This AD was prompted by a report of the failure of the engine fire shutoff switch in the engine fire control module. The Federal Aviation Administration is issuing this AD to prevent mineral build-up on the auxiliary power unit (APU) and engine fire shutoff switches, which could lead to the switches failing to discharge fire suppressant to the affected fire zone and result in an uncontrolled engine or APU fire and consequent loss of the airplane.

## Compliance

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

## Service Bulletin Reference

- (f) The term "service bulletin," as used in this AD, means the Accomplishment Instructions of Boeing Alert Service Bulletin 767-26A0127, dated July 17, 2003.

## Initial and Repetitive Functional Tests

- (g) At the later of the compliance times specified in paragraphs (g)(1) and (g)(2) of this AD, do a functional test of the APU and engine fire shutoff switches, in accordance with the service bulletin. Repeat the functional test thereafter at intervals not to exceed 18 months.

(1) Within 18 months since the date of issuance of the original Airworthiness Certificate or the original Export Certificate of Airworthiness.

(2) Within 90 days after the effective date of this AD.

### **Corrective Action for Failure of a Fire Shutoff Switch**

(h) If any APU or engine fire shutoff switch fails during any functional test required by paragraph (g) or (k) of this AD, before further flight, replace the switch with a new or serviceable switch, in accordance with the service bulletin. Repeat the switch replacement thereafter at intervals not to exceed 36 months.

### **Initial and Repetitive Replacements of Fire Shutoff Switches**

(i) Within 18 months after the effective date of this AD, replace all APU and engine fire shutoff switches that have not been previously replaced in accordance with paragraph (h) of this AD with new or serviceable switches, in accordance with the service bulletin. Repeat the switch replacement thereafter at intervals not to exceed 36 months.

### **Optional Terminating Action: Deactivation of Humidifier**

(j) Accomplishment of the actions specified in paragraphs (j)(1) and (j)(2) of this AD, terminates the repetitive requirements of paragraphs (g), (h), and (i) of this AD, except as provided by paragraph (k) of this AD.

(1) Deactivate the Lucas humidifier, part number (P/N) M01AA0101, M01AB0101, M01AB0102, or M01AB0103, in accordance with the service bulletin.

(2) Before further flight following the deactivation specified in paragraph (j)(1) of this AD, replace all APU and engine fire shutoff switches with new or serviceable switches, in accordance with the service bulletin.

### **Reactivation of Lucas Humidifier**

(k) For any airplane on which Lucas humidifier, P/N M01AA0101, M01AB0101, M01AB0102, or M01AB0103, is reactivated after the effective date of this AD: Do the actions required by paragraphs (k)(1) and (k)(2) of this AD at the specified compliance times.

(1) Within 18 months after reactivating the humidifier, and thereafter at intervals not to exceed 18 months, do the functional tests required by paragraph (g) of this AD.

(2) Within 36 months after reactivating the humidifier, and thereafter at intervals not to exceed 36 months, replace all APU and engine fire shutoff switches that have not been previously replaced in accordance with paragraph (h) of this AD. Do the replacements in accordance with paragraph (i) of this AD.

### **Alternative Methods of Compliance (AMOC)**

(l) The Manager, Seattle Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

### **Material Incorporated by Reference**

(m) You must use Boeing Alert Service Bulletin 767-26A0127, dated July 17, 2003, to perform the actions that are required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference of this document in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You can get copies of the document from Boeing Commercial

Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207. You can review copies at the Docket Management Facility office, U.S. Department of Transportation, 400 Seventh Street SW, room PL-401, Nassif Building, Washington, DC; or 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 December 29, 2004.

Kevin M. Mullin,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 05-538 Filed 1-12-05; 8:45 am]

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