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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2006-25326; Directorate Identifier 2006-NM-081-AD; Amendment 39-15151; AD 2007-16-12]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Boeing Model 757-200 and -300 Series Airplanes**

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

**ACTION:** Final rule.

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**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for certain Boeing Model 757-200 and -300 series airplanes. This AD requires changes to existing wiring; installation of new circuit breakers, relays, relay connectors, and wiring; and replacement of certain circuit breakers with higher-rated circuit breakers. For certain airplanes, this AD also requires modification of wiring of the control module assembly for the electrical systems. This AD results from an in-flight entertainment (IFE) systems review. We are issuing this AD to ensure that the flightcrew is able to turn off electrical power to the IFE system and other non-essential electrical systems through utility bus switches in the flight compartment. The flightcrew's inability to turn off power to the IFE system and other non-essential electrical systems during a non-normal or emergency situation could result in the inability to control smoke or fumes in the airplane flight deck or cabin.

**DATES:** This AD becomes effective September 13, 2007.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of September 13, 2007.

**ADDRESSES:** You may examine the AD docket on the Internet at <http://dms.dot.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.

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

**FOR FURTHER INFORMATION CONTACT:** Shohreh Safarian, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 917-6418; fax (425) 917-6590.

## **SUPPLEMENTARY INFORMATION:**

### **Examining the Docket**

You may examine the airworthiness directive (AD) docket on the Internet at <http://dms.dot.gov> or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Operations office (telephone (800) 647-5527) is located on the ground floor of the West Building at the street address stated in the ADDRESSES section.

### **Discussion**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to certain Boeing Model 757-200 and -300 series airplanes. That NPRM was published in the Federal Register on July 13, 2006 (71 FR 39597). That NPRM proposed to require changes to existing wiring; installation of new circuit breakers, relays, relay connectors, and wiring; and replacement of certain circuit breakers with higher-rated circuit breakers. For certain airplanes, that NPRM also proposed to require modification of wiring of the control module assembly for the electrical systems.

### **Comments**

We provided the public the opportunity to participate in the development of this AD. We have considered the comments received.

### **Support of the NPRM**

Boeing, Northwest Airlines (NWA), and the Air Transport Association (ATA) agree with the intent of the NPRM.

### **Request To Clarify Affected Control Module Assemblies**

The ATA, on behalf of its member US Airways, requests that we clarify which control module assemblies are required to be modified. US Airways states that it believes the intent of the NPRM would be to require concurrent modification of the control module assemblies identified in Boeing Service Bulletin 757-24-0093, dated August 14, 2003. However, US Airways points out that the effectivity of Boeing Component Service Bulletin 233N3209-24-04, Revision 1, dated August 14, 2003, identifies additional parts not found in Boeing Service Bulletin 757-24-0093.

We agree that the intent of paragraph (g) of the NPRM was to propose modification of certain control module assemblies identified in paragraph 2.C.3. of Boeing Service Bulletin 757-24-0093. The affected part numbers (P/Ns) are 233N3209-1025, -1026, -1028, -1300, and -1302. We have revised paragraph (g) of this AD to identify those affected part numbers. Further, we have revised paragraph (h) of this AD, "Credit for Accomplishment of Previous Service Bulletin," to specify that doing the modification in accordance with the original issue of Boeing Component Service Bulletin 233N3209-24-04, dated April 10, 2003, is acceptable only for control module assembly, P/Ns 233N3209-1025, -1300, and -1302, since only these part numbers are referenced in the effectivity of the original issue of Boeing Component Service Bulletin 233N3209-24-04.

### **Request To Address an Additional Circuit Breaker**

NWA states that Boeing Service Bulletin 757-24-0093, dated August 14, 2003, does not address the shedding of direct current (DC) power on Model 757-200 airplanes, variable numbers NE311 through NE325 inclusive. NWA further states that circuit breaker C9009, which controls 28-volt DC

power on these airplanes, is also not addressed by the service bulletin. We infer that NWA would like Boeing to revise the service bulletin to provide instructions for addressing the unsafe condition on these specific airplanes.

We do not agree. The airplanes mentioned in NWA's comment above are identified as Group 40 airplanes in Boeing Service Bulletin 757-24-0093. Circuit breaker C9009 was not installed as part of the IFE system on Boeing airplanes. That circuit breaker was installed in accordance with a supplemental type certificate (STC), and we are currently evaluating that issue separately from this AD. This AD affects only IFE systems that were installed in production by Boeing. Therefore, we have not changed this AD in this regard.

### **Request To Exclude Other Non-Essential Electrical Systems**

NWA requests that we revise the NPRM to address the IFE system only. NWA states that, in addition to addressing the IFE systems, the NPRM and referenced Boeing service bulletins address other non-essential systems. As justification for its request, NWA states that the non-essential systems are unrelated to the Interim Policy Guidance for Certification of In-Flight Entertainment Systems on Title 14 CFR Part 25 Aircraft, Policy Number PS-ANM100-2000-00105, dated September 18, 2000.

We do not agree that the other non-essential electrical systems can be excluded from the requirements of this AD. If we excluded non-essential electrical systems from the requirements of this AD and electrical power to those systems had to be shut off due to smoke or fire, then power might also be shut off to other electrical systems that are essential for safe flight and landing. For this reason, control of the IFE and other non-essential electrical systems must be independent from other electrical systems essential for safe flight and landing. Therefore, we have determined that the actions required by this AD are necessary to ensure the continued safety of the affected fleet. We have revised the Summary section and paragraph (d) of this AD to clarify that the flightcrew's inability to turn off power to the IFE system and other non-essential electrical systems during a non-normal or emergency situation could result in the inability to control smoke or fumes in the airplane flight deck or cabin.

### **Request To Add an Alternative Method of Compliance (AMOC)**

NWA requests that we revise this AD to allow use of a master "kill switch" in the airplane flight deck and/or cabin to shut off electrical power to the IFE system. As justification, NWA states that kill switches give the flightcrew or flight attendants the ability to shut off power to the IFE system without disturbing operation of flight essential systems. NWA further states that the kill switches in the flight deck should be positioned within easy reach of the flightcrew, and that kill switches in the cabin should be within easy access of the cabin crew. NWA asserts that adding kill switches meets and exceeds the intent of the NPRM.

We do not agree with use of a master "kill switch" in either the flight deck or the cabin, in general without understanding the specific design details. To adequately address the unsafe condition, it is necessary to supply power to all non-essential electrical systems through a utility bus and to provide the flightcrew with a means of deactivating all non-essential electrical systems to control smoke or fumes in the flight deck or cabin. Deactivation of non-essential electrical loads might not necessarily be achieved through use of a master "kill switch." However, under the provisions of paragraph (i) of this AD, we may consider requests for approval of an AMOC if sufficient data are submitted to substantiate that such a design change would provide an acceptable level of safety. This AD affects only IFE systems that were installed in production by Boeing. We have not changed this AD in this regard.

## **Request To Exempt Airplanes With Deactivated Systems**

NWA recommends that we revise this AD to include a waiver for IFE systems that have been permanently deactivated. NWA states that these systems would have all system power removed (capped and stowed) at the breaker. NWA asserts that, if power is removed at the breaker level, there is no possibility of the IFE system causing non-normal emergencies due to the IFE system.

We do not agree to exempt airplanes with deactivated IFE systems from the requirements of this AD. Since the IFE system has been identified as the source of the unsafe condition, we need to evaluate the method of deactivation with respect to its interaction with the unsafe condition. Therefore, any request to exempt airplanes with deactivated IFE systems should be submitted as an AMOC in accordance with the provisions of paragraph (i) of this AD. We have not changed this AD in this regard.

## **Request To Extend Compliance Time**

NWA requests that we extend the compliance time from 60 months to 72 months. NWA states that the work specified in the referenced Boeing service bulletins is complicated and accomplished best at a heavy check, which occurs at 72-month intervals.

We do not agree with the commenter's request to extend the compliance time. We have determined that the compliance time, as proposed in the NPRM, represents the maximum interval of time allowable for the affected airplanes to continue to safely operate before the modification is done. Since maintenance schedules vary among operators, there would be no assurance that the airplane would be modified during that maximum interval. However, paragraph (i) of this AD provides affected operators the opportunity to apply for an adjustment of the compliance time if the operator also presents data justifying the adjustment.

## **Request To Publish Service Information**

The Modification and Replacement Parts Association (MARPA) states that, typically, ADs are based on service information originating with the type certificate holder or its suppliers. MARPA adds that manufacturer service documents are privately authored instruments generally having copyright protection against duplication and distribution. MARPA notes that when a service document is incorporated by reference into a public document, such as an AD, it loses its private, protected status and becomes a public document. MARPA adds that if a service document is used as a mandatory element of compliance, it should not simply be referenced, but should be incorporated into the regulatory document; by definition, public laws must be public, which means they cannot rely upon private writings. MARPA adds that service documents incorporated by reference should be made available to the public by publication in the Department of Transportation's Docket Management System (DMS), keyed to the action that incorporates them. MARPA notes that the stated purpose of the incorporation by reference method is brevity, to keep from expanding the Federal Register needlessly by publishing documents already in the hands of the affected individuals; traditionally, "affected individuals" means aircraft owners and operators, who are generally provided service information by the manufacturer. MARPA adds that a new class of affected individuals has emerged, since the majority of aircraft maintenance is now performed by specialty shops instead of aircraft owners and operators. MARPA notes that this new class includes maintenance and repair organizations, component servicing and repair shops, parts purveyors and distributors, and organizations manufacturing or servicing alternatively certified parts under section 21.303 ("Replacement and modification parts") of the Federal Aviation Regulations (14 CFR 21.303). MARPA adds that the concept of brevity is now nearly archaic as documents exist more frequently in electronic format than on paper. Therefore, MARPA asks that the service document deemed essential to the accomplishment of the NPRM be incorporated by reference into the regulatory instrument and published in DMS.

We acknowledge MARPA's comment concerning incorporation by reference. The Office of the Federal Register (OFR) requires that documents that are necessary to accomplish the requirements of the AD be incorporated by reference during the final rule phase of rulemaking. This AD incorporates by reference the documents necessary for the accomplishment of the requirements mandated by this AD. Further, we point out that while documents that are incorporated by reference do become public information, they do not lose their copyright protection. For that reason, we advise the public to contact the manufacturer to obtain copies of the referenced service information.

In regard to the commenter's request to post the service bulletin on DMS, we are currently in the process of reviewing issues surrounding the posting of service bulletins on DMS as part of an AD docket. Once we have thoroughly examined all aspects of this issue and have made a final determination, we will consider whether our current practice needs to be revised. No change to this AD is necessary in response to this comment.

### **Request To Allow Use of Parts Manufacturer Approval (PMA) Parts**

MARPA states that the practice of requiring the replacement of a defective part with a certain part conflicts with 14 CFR 21.303. MARPA asserts that requiring installation of a certain part prevents installation of other good parts and prohibits the development of new parts. MARPA also states that the practice of requiring an AMOC to install a PMA part should be stopped. MARPA concludes that this practice presumes that all PMA parts are inherently defective and require an additional layer of approval.

MARPA further states the NPRM does not comply with FAA Order 8040.2; that order states that replacement or installation of certain parts could have replacement parts approved under 14 CFR 21.303 based on a finding of identity. That order also states that any parts approved under this regulation and installed should be subject to the actions of the AD and included in the applicability.

MARPA states that if a PMA part is defective, then it must be addressed in an AD and not just simply implied by an AMOC requirement. MARPA suggests that we adopt language used in ADs issued by directorates other than the Transport Airplane Directorate, which specify installing an "FAA-approved equivalent part number" or "airworthy parts." MARPA contends that the mandates contained in Section 1, paragraph (b)(1) of Executive Order 12866 are not being met because the directorates differ in their treatment of this issue. MARPA, therefore, requests that we revise the NPRM to allow use of PMA parts.

We do not agree to revise this AD. The NPRM does not address PMA parts, as provided in draft FAA Order 8040.2, because the Order was only a draft that was out for comment at the time. After issuance of the NPRM, the Order was revised and issued as FAA Order 8040.5 with an effective date of September 29, 2006. FAA Order 8040.5 does not address PMA parts in ADs.

We acknowledge the need to ensure that unsafe PMA parts are identified and addressed in ADs in a standardized way at the national level. We are currently examining all aspects of this issue, including input from industry. Once we have made a final determination, we will consider how our policy regarding PMA parts in ADs needs to be revised. However, the Transport Airplane Directorate considers that to delay this particular AD action would be inappropriate, since we have determined that an unsafe condition exists and that replacement of certain parts must be accomplished to ensure continued safety. Therefore, no change has been made to this AD in this regard.

### **Clarification of Alternative Method of Compliance (AMOC) Paragraph**

We have revised this action to clarify the appropriate procedure for notifying the principal inspector before using any approved AMOC on any airplane to which the AMOC applies.

## Conclusion

We have carefully 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 have determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

## Costs of Compliance

There are about 548 airplanes of the affected design in the worldwide fleet. This AD affects about 332 Model 757-200 and -300 airplanes of U.S. registry. The following table provides the estimated costs, at an average labor rate of \$80 per hour, for U.S. operators to comply with this AD. The estimated work hours and cost of parts in the following table depend on the relay and wiring configuration of an airplane.

Estimated Costs						
Model	Action	Work hours	Parts	Cost per airplane	Number of U.S.-registered airplanes	Fleet cost
757-200 series airplanes	Installation	38 to 46	\$2,781 to \$5,917	\$5,821 to \$9,597	318	\$1,851,078 to \$3,051,846
	Concurrent modification	3	\$73 to \$90	\$313 to \$330	318	\$99,534 to \$104,940
757-300 series airplanes	Installation	22	\$2,080 to \$4,632	\$3,840 to \$6,392	14	\$53,760 to \$89,488

## 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 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 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); 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. 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 Federal Aviation Administration (FAA) amends § 39.13 by adding the following new airworthiness directive (AD):



**2007-16-12 Boeing:** Amendment 39-15151. Docket No. FAA-2006-25326; Directorate Identifier 2006-NM-081-AD.

**Effective Date**

(a) This AD becomes effective September 13, 2007.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to the Boeing airplanes identified in paragraphs (c)(1) and (c)(2) of this AD, certificated in any category.

(1) Model 757-200 series airplanes, as identified in Boeing Service Bulletin 757-24-0093, dated August 14, 2003.

(2) Model 757-300 series airplanes, as identified in Boeing Service Bulletin 757-24-0094, dated April 17, 2003.

**Unsafe Condition**

(d) This AD results from an in-flight entertainment (IFE) systems review. We are issuing this AD to ensure that the flightcrew is able to turn off electrical power to the IFE system and other non-essential electrical systems through utility bus switches in the flight compartment. The flightcrew's inability to turn off power to the IFE system and other non-essential electrical systems during a non-normal or emergency situation could result in the inability to control smoke or fumes in the airplane flight deck or cabin.

**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.

**Installation of Circuit Breakers, Relays, and Wiring**

(f) Within 60 months after the effective date of this AD, do the applicable actions specified in paragraphs (f)(1) through (f)(6) of this AD, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 757-24-0093, dated August 14, 2003 (for Model 757-200 series airplanes); or Boeing Service Bulletin 757-24-0094, dated April 17, 2003 (for Model 757-300 series airplanes); as applicable.

(1) For all airplanes: Change the wiring at the P5 and P11 panel assemblies in the flight compartment, at the P36 panel assembly in the forward cargo compartment, and at the P37 and P70

panel assemblies in the main electronics compartment. Install a new relay and relay connector, if applicable, at the P36 panel assembly and at the P37 panel assembly.

(2) For Model 757-200 series airplanes identified as Group 1 in Boeing Service Bulletin 757-24-0093, dated August 14, 2003: Install new circuit breakers C3090 and C3089 at the P37 and P70 panel assemblies, respectively, in the main electronics compartment.

(3) For Model 757-200 series airplanes identified as Groups 21 and 22 in Boeing Service Bulletin 757-24-0093, dated August 14, 2003: Replace circuit breaker C311 at the P31 panel assembly in the main electronics compartment with a higher-rated circuit breaker.

(4) For Model 757-200 series airplanes identified as Groups 1 through 20 inclusive and 23 through 40 inclusive in Boeing Service Bulletin 757-24-0093, dated August 14, 2003: Replace circuit breakers C311 and C315 at the P31 and P32 panel assemblies, respectively, in the main electronics compartment with higher-rated circuit breakers.

(5) For Model 757-300 series airplanes identified as Groups 1 and 4 in Boeing Service Bulletin 757-24-0094, dated April 17, 2003: Replace circuit breakers C311 and C315 at the P31 and P32 panel assemblies, respectively, in the main electronics compartment with higher-rated circuit breakers.

(6) For Model 757-300 series airplanes identified as Groups 1, 2, and 3 in Boeing Service Bulletin 757-24-0094, dated April 17, 2003: Install new wires between the P5 panel assembly in the flight compartment and the P36 and P37 panel assemblies in the main electronics compartment.

### **Concurrent Requirement for Certain Airplanes**

(g) For the Model 757-200 series airplanes identified as Groups 8, 9, 12, 15, 20, 21 through 32 inclusive, and 34 through 40 inclusive in Boeing Service Bulletin 757-24-0093, dated August 14, 2003, equipped with control module assembly, part number (P/N) 233N3209-1025, -1026, -1028, -1300, or -1302: Prior to or concurrently with accomplishing the actions specified in paragraph (f) of this AD, modify the wiring of the control module assembly for the electrical systems, by accomplishing all of the actions specified in the Accomplishment Instructions of Boeing Component Service Bulletin 233N3209-24-04, Revision 1, dated August 14, 2003, as applicable.

### **Credit for Accomplishment of Previous Service Bulletin**

(h) Modification of the control module assembly, P/N 233N3209-1025, -1300, or -1302, done before the effective date of this AD in accordance with Boeing Component Service Bulletin 233N3209-24-04, dated April 10, 2003, is acceptable for compliance with the requirements of paragraph (g) of this AD.

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

(i)(1) The Manager, Seattle Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

(2) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. 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.

### **Material Incorporated by Reference**

(j) You must use the service information listed Table 1 of this AD 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 these documents in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207, for a copy of this service information. You may review copies at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington; 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/cfr/ibr-locations.html>.

**Table 1 – Material Incorporated by Reference**

<b>Service Information</b>	<b>Revision Level</b>	<b>Date</b>
Boeing Component Service Bulletin 233N3209-24-04	1	August 14, 2003
Boeing Service Bulletin 757-24-0093	Original	August 14, 2003
Boeing Service Bulletin 757-24-0094	Original	April 17, 2003

Issued in Renton, Washington, on July 30, 2007.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E7-15410 Filed 8-8-07; 8:45 am]