

[Federal Register Volume 83, Number 192 (Wednesday, October 3, 2018)]

[Rules and Regulations]

[Pages 49780-49784]

From the Federal Register Online via the Government Publishing Office [www.gpo.gov]

[FR Doc No: 2018-21346]

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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2017-0905; Product Identifier 2017-NM-090-AD; Amendment 39-19424; AD 2018-19-23]**

**RIN 2120-AA64**

#### **Airworthiness Directives; The Boeing Company Airplanes**

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

**ACTION:** Final rule.

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**SUMMARY:** We are superseding Airworthiness Directive (AD) 2013-01-02, which applied to certain The Boeing Company Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series airplanes; and Model 757-200, 757-200PF, and 757-300 series airplanes. AD 2013-01-02 required replacing the control switches of certain cargo doors. This AD requires replacement of certain cargo door control switches with a new, improved switch; installation of an arm switch in certain cargo doors; operational and functional tests; and applicable on-condition actions. This AD also adds airplanes to the applicability. This AD was prompted by reports of uncommanded cargo door operation. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective November 7, 2018.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of November 7, 2018.

**ADDRESSES:** For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; internet <https://www.myboeingfleet.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0905.

## **Examining the AD Docket**

You may examine the AD docket on the internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0905; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments received, and other information. The address for Docket Operations (phone: 800-647-5527) is Docket Operations, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Susan L. Monroe, Aerospace Engineer, Cabin Safety and Environmental Systems Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3570; email: [susan.l.monroe@faa.gov](mailto:susan.l.monroe@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2013-01-02, Amendment 39-17316 (78 FR 4051, January 18, 2013) (“AD 2013-01-02”). AD 2013-01-02 applied to certain The Boeing Company Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series airplanes; and Model 757-200, 757-200PF, and 757-300 series airplanes. The NPRM published in the Federal Register on October 6, 2017 (82 FR 46722). The NPRM was prompted by reports of uncommanded cargo door operation. The NPRM proposed to require replacement of certain cargo door control switches with a new, improved switch; installation of an arm switch in certain cargo doors; operational and functional tests; and applicable on-condition actions. The NPRM also proposed to add airplanes to the applicability. We are issuing this AD to prevent failures of the cargo door control switch from allowing uncommanded movement of the cargo door, which, if not corrected, could lead to injuries to persons and damage to the airplane.

### **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA's response to each comment.

### **Support for the NPRM**

FedEx Express and United Airlines (UAL) stated they had no technical objection to the NPRM.

### **Request To Withdraw the NPRM**

Three commenters requested that the NPRM be withdrawn. Virgin Atlantic Airlines (VAA) and Deutsche Lufthansa AG (DLH) pointed out there have been no reported failures of the cargo door control switches or incidents of uncommanded door operation at VAA or DLH since AD 2013-01-02 was issued. United Parcel Service (UPS) stated that the NPRM appears to be based on a single event of an otherwise reliable cargo door switch configuration, based on industry data that show no significant number of unscheduled removals reported since AD 2013-01-02 was issued. DLH commented that the operational area of the cargo door is a safety critical area that requires the operator to verify that the area is safe and clear, whether an additional arm switch is present or not. All commenters stated that the repetitive inspections required by AD 2013-01-02 should remain in place and that accomplishing the actions in Boeing Special Attention Service Bulletin 747-52-2307,

dated May 23, 2017; and Boeing Special Attention Service Bulletin 747-52-2308, dated June 5, 2017; should be an optional terminating action for the inspections.

We disagree with the commenters' request because our risk analysis indicates that the actions mandated by AD 2013-01-02 were inadequate to mitigate the unsafe condition. Although VAA and DLH have had no new incidents, there have been multiple reports of uncommanded cargo door operation within the affected fleets. Therefore, existing procedures for door operation have not been adequate to prevent the unsafe condition. We are mandating the actions in this AD because an unsafe condition exists, which is likely to exist or develop on other products of the same type design. We have not changed this AD in this regard.

### **Request To Specify Compliance Times Using Flight Cycles**

UPS requested that we specify compliance times in terms of flight cycles rather than calendar time because cargo door operation is based on flight cycles. UPS also stated that the compliance interval for both Model 747 and 757 fleets should be the same because the operation of the cargo door control switch is the same across both models. UPS recommended replacing the cargo door control switches every 3,000 flight cycles.

We disagree with the commenter's request because we have not confirmed a causal relationship between switch failure and operating cycles. In developing the compliance time in this AD, we have considered the safety implications, parts availability, and normal maintenance schedules for the timely installation of the cargo door control switches. Further, the compliance time in this AD corresponds with the manufacturer's recommended compliance time for each model. If we receive additional data that justify a different compliance time, we may consider further rulemaking on this issue. In addition, under the provisions of paragraph (j) of this AD, we will consider requests for approval of alternative compliance times if sufficient data are submitted to substantiate that the change would provide an acceptable level of safety. We have not changed this AD in this regard.

### **Request To Include Latest Service Information Revision**

AAL, Delta Airlines (DAL), and FedEx Express requested that we refer to Boeing Special Attention Service Bulletin 757-52-0093, Revision 2, dated November 14, 2017, instead of Boeing Special Attention Service Bulletin 757-52-0093, Revision 1, dated April 21, 2017, which is referenced in the NPRM. DAL stated that the revised service information allows alternatives to Alodine 1200 and 1200S. AAL noted that paragraphs (c)(4) and (g)(4) of the proposed AD would no longer be necessary as the new service information addresses those issues. AAL also requested that we provide credit for Boeing Special Attention Service Bulletin 757-52-0093, Revision 1, dated April 21, 2017.

We agree with the commenters' request. Boeing Special Attention Service Bulletin 757-52-0093, Revision 2, dated November 14, 2017, provides minor corrections, and there is no effect on airplanes on which earlier revisions were done. Boeing Special Attention Service Bulletin 757-52-0093, Revision 2, dated November 14, 2017, also adds variable numbers NP901 through NP904 inclusive to the effectivity. We had referred to those variable numbers in paragraphs (c)(4) and (g)(4) of the proposed AD. Therefore, we have made the following changes to this AD:

- Changed paragraphs (c)(3) and (g)(3) of this AD to refer to Boeing Special Attention Service Bulletin 757-52-0093, Revision 2, dated November 14, 2017.
- Removed paragraphs (c)(4) and (g)(4) of the proposed AD.
- Changed this AD to provide credit for certain actions done before the effective date of this AD using Boeing Special Attention Service Bulletin 757-52-0093, Revision 1, dated April 21, 2017 (reference paragraph (i)(3) of this AD).

## **Request To Extend Compliance Time**

Multiple commenters requested that we extend the compliance times in the proposed AD. DLH requested we extend the compliance time on the Model 747 airplanes from 35 months to 72 months because there have been no recorded cargo door control switch failures since AD 2013-01-02 was issued. American Airlines (AAL) requested that for the requirement to replace the cargo door control switches on Model 757 airplane cargo doors 1 and 2, we extend the compliance time from 24 months to 36 months. AAL explained that new cargo door control switches will have already been installed as part of compliance with AD 2013-01-02, and proposed accomplishing a functional check of the cargo door control switch every 12 months until cargo door control switches are replaced in accordance with Boeing Special Attention Service Bulletin 757-52-0093, Revision 2, dated November 14, 2017.

We disagree with extending the compliance times in this AD because we have determined that the replacements required by AD 2013-01-02 are inadequate, and that new, improved switches are necessary to address the unsafe condition. In developing the compliance times in this AD, we have considered the safety implications, parts availability, and normal maintenance schedules for the timely installation of the cargo door control switches. Further, the compliance times in this AD correspond with the manufacturer's recommended compliance time for each model. If we receive additional data that justify different compliance times, we may consider further rulemaking on this issue. In addition, under the provisions of paragraph (j) of this AD, we will consider requests for approval of alternative compliance times if sufficient data are submitted to substantiate that the change would provide an acceptable level of safety. We have not changed this AD in this regard.

## **Request for Relief Due to Parts Availability**

Cathay requested a non-specific extension of the compliance times due to parts availability issues. Cathay stated that paragraphs (g)(1) and (g)(2) of the proposed AD would require accomplishment of applicable actions in accordance with Boeing Special Attention Service Bulletin 747-52-2307, dated May 23, 2017; and Boeing Special Attention Service Bulletin 747-52-2308, dated June 5, 2017. Cathay noted that both service bulletins specify a compliance time of 35 months after the "original issue date of the service bulletin" (e.g., May 23, 2017; and June 5, 2017, respectively). The commenter stated it had received information from Boeing that certain parts were not ready for delivery due to issues during validation of Boeing Special Attention Service Bulletin 747-52-2307, dated May 23, 2017. The commenter also stated that Boeing Special Attention Service Bulletin 747-52-2308, dated June 5, 2017, has not been validated.

Regarding Cathay's comment that certain compliance times are relative to the issue dates of Boeing Special Attention Service Bulletin 747-52-2307, dated May 23, 2017; and Boeing Special Attention Service Bulletin 747-52-2308, dated June 5, 2017, we agree to clarify the required compliance times. Paragraph (g) of this AD states "Except as required by paragraph (h) of this AD," and paragraph (h) of this AD specifies that certain compliance times are relative to the "effective date of this AD," rather than the "original issue date of this service bulletin." Therefore, the compliance times in this AD are based on the effective date of this AD instead of the issue date of applicable service bulletins.

The Boeing Company has completed the validation process for all applicable service information. Revised and validated service information for the Model 747 airplanes is now available. This AD references the revised service information as the appropriate source of service information for affected Boeing Model 747 series airplanes. In addition, Boeing has informed us that parts are currently available for compliance with this AD.

We have changed paragraphs (c)(1) and (g)(1) of this AD to refer to Boeing Special Attention Service Bulletin 747-52-2307, Revision 1, dated May 2, 2018; and paragraphs (c)(2) and (g)(2) of this AD to reference Boeing Special Attention Service Bulletin 747-52-2308, Revision 1, dated June 18, 2018. We have also changed paragraph (h) of this AD to refer to Boeing Special Attention

Service Bulletin 747-52-2307, Revision 1, dated May 2, 2018; and Boeing Special Attention Service Bulletin 747-52-2308, Revision 1, dated June 18, 2018. We have also changed this AD to provide credit for certain actions done before the effective date of this AD using Boeing Special Attention Service Bulletin 747-52-2307, dated May 23, 2017, or Boeing Special Attention Service Bulletin 747-52-2308, dated June 5, 2017, as applicable (reference paragraphs (i)(1) and (i)(2) of this AD).

Since parts and revised service information are available, and since the compliance times are based on the effective date of this AD, rather than the service information, we have not changed the compliance times in this AD in this regard. However, under the provisions of paragraph (j) of this AD, we will consider requests for approval of alternative compliance times if sufficient data are submitted to substantiate that the change would provide an acceptable level of safety.

### **Request To Remove Replacement Requirement for Certain Airplanes**

Boeing requested we revise the language in paragraph (g)(4) of the proposed AD to remove the requirement to replace the nose cargo door control switch from the Model 757 airplane requirements because Model 757 airplanes do not have a nose cargo door.

We agree with the commenter's request for the reasons provided by the commenter. As stated previously, paragraph (g)(4) of the proposed AD is not retained in this AD. The actions for Model 757 airplanes, which are required by paragraph (g)(3) of this AD, are specified in Boeing Special Attention Service Bulletin 757-52-0093, Revision 2, dated November 14, 2017, which does not reference nose cargo door switches.

### **Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously, and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

### **Related Service Information Under 1 CFR Part 51**

We reviewed the following Boeing service information.

- Boeing Special Attention Service Bulletin 747-52-2307, Revision 1, dated May 2, 2018; and Boeing Special Attention Service Bulletin 747-52-2308, Revision 1, dated June 18, 2018. The service information describes procedures for replacement of the nose, forward, and aft cargo door control switches with new, improved switches; installation of an arm switch in the forward and aft cargo doors; a nose cargo door normal operation test; forward and aft cargo door open and close functional tests; and applicable on-condition actions. These documents are distinct since they apply to different airplanes in different configurations.
- Boeing Special Attention Service Bulletin 757-52-0093, Revision 2, dated November 14, 2017. This service information describes procedures for replacement of the forward and aft cargo door control switches with new, improved switches; installation of an arm switch in the forward and aft cargo doors; an operational test of the No. 1 and No. 2 cargo doors; repetitive functional tests of the No. 1 and No. 2 cargo doors; and applicable on-condition actions.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

## Costs of Compliance

We estimate that this AD affects 584 airplanes of U.S. registry. We estimate the following costs to comply with this AD:

### Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Replacement (Boeing Special Attention Service Bulletin 747-52-2307) (14 airplanes)	78 work-hours × \$85 per hour = \$6,630	\$12,874	\$19,504	\$273,056.
Replacement (Boeing Special Attention Service Bulletin 747-52-2308) (94 airplanes)	24 work-hours × \$85 per hour = \$2,040	980	3,020	283,880.
Replacement (Boeing Special Attention Service Bulletin 757-52-0093) (476 airplanes)	51 work-hours × \$85 per hour = \$4,335	10,626	14,961	7,121,436.
Repetitive Test (Boeing Special Attention Service Bulletin 757-52-0093) (476 airplanes)	3 work-hours × \$85 per hour = \$255 per test cycle	0	255 per test cycle	121,380 per test cycle.

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all available costs in our cost estimate.

## 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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

## 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),
- (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 removing Airworthiness Directive (AD) 2013-01-02, Amendment 39-17316 (78 FR 4051, January 18, 2013), and adding the following new AD:



**FAA**  
**Aviation Safety**

## **AIRWORTHINESS DIRECTIVE**

[www.faa.gov/aircraft/safety/alerts/](http://www.faa.gov/aircraft/safety/alerts/)  
[www.gpoaccess.gov/fr/advanced.html](http://www.gpoaccess.gov/fr/advanced.html)

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**2018-19-23 The Boeing Company:** Amendment 39-19424; Docket No. FAA-2017-0905; Product Identifier 2017-NM-090-AD.

### **(a) Effective Date**

This AD is effective November 7, 2018.

### **(b) Affected ADs**

This AD replaces AD 2013-01-02, Amendment 39-17316 (78 FR 4051, January 18, 2013) (“AD 2013-01-02”).

### **(c) Applicability**

This AD applies to The Boeing Company airplanes; certificated in any category; as identified in paragraphs (c)(1), (c)(2), and (c)(3) of this AD.

(1) Model 747-8F and 747-8 series airplanes as identified in Boeing Special Attention Service Bulletin 747-52-2307, Revision 1, dated May 2, 2018.

(2) Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series airplanes, as identified in Boeing Special Attention Service Bulletin 747-52-2308, Revision 1, dated June 18, 2018.

(3) Model 757-200, 757-200PF, 757-200CB, and -300 series airplanes, as identified in Boeing Special Attention Service Bulletin 757-52-0093, Revision 2, dated November 14, 2017.

### **(d) Subject**

Air Transport Association (ATA) of America Code 52, Doors.

### **(e) Unsafe Condition**

This AD was prompted by reports of uncommanded cargo door operation. We are issuing this AD to prevent failures of the cargo door control switch from allowing uncommanded movement of the cargo door, which if not corrected, could lead to injuries to persons and damage to the airplane.

### **(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

### **(g) Required Actions**

Except as required by paragraph (h) of this AD: Do the applicable actions specified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD.

(1) For airplanes identified in Boeing Special Attention Service Bulletin 747-52-2307, Revision 1, dated May 2, 2018: At the applicable time specified in paragraph 1.E., “Compliance,” of Boeing



Special Attention Service Bulletin 747-52-2307, Revision 1, dated May 2, 2018, do all applicable actions identified as “RC” (required for compliance) in, and in accordance with, the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-52-2307, Revision 1, dated May 2, 2018.

(2) For airplanes identified in Boeing Special Attention Service Bulletin 747-52-2308, Revision 1, dated June 18, 2018: At the applicable time specified in paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 747-52-2308, Revision 1, dated June 18, 2018, do all applicable actions identified as RC in, and in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-52-2308, Revision 1, dated June 18, 2018.

(3) For airplanes identified in Boeing Special Attention Service Bulletin 757-52-0093, Revision 2, dated November 14, 2017: At the applicable times specified in paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 757-52-0093, Revision 2, dated November 14, 2017, do all applicable actions identified as RC in, and in accordance with, the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-52-0093, Revision 2, dated November 14, 2017.

#### **(h) Exception to Service Information**

Where Boeing Special Attention Service Bulletin 747-52-2307, Revision 1, dated May 2, 2018; Boeing Special Attention Service Bulletin 747-52-2308, Revision 1, dated June 18, 2018; and Boeing Special Attention Service Bulletin 757-52-0093, Revision 2, dated November 14, 2017; specify a compliance time after “the original issue date of this service bulletin,” this AD requires compliance within the specified compliance time after the effective date of this AD.

#### **(i) Credit for Previous Actions**

(1) This paragraph provides credit for the actions specified in paragraph (g)(1) of this AD if those actions were performed before the effective date of this AD using Boeing Special Attention Service Bulletin 747-52-2307, dated May 23, 2017.

(2) This paragraph provides credit for the actions specified in paragraph (g)(2) of this AD if those actions were performed before the effective date of this AD using Boeing Special Attention Service Bulletin 747-52-2308, dated June 5, 2017.

(3) This paragraph provides credit for the actions specified in paragraph (g)(3) of this AD if those actions were performed before the effective date of this AD using Boeing Special Attention Service Bulletin 757-52-0093, dated May 5, 2016; or Boeing Special Attention Service Bulletin 757-52-0093, Revision 1, dated April 21, 2017.

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

(1) The Manager, Seattle ACO Branch, 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 manager of the certification office, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) 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.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO Branch, to make those findings. To be approved, the repair method, modification deviation, or

alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) For service information that contains steps that are labeled as RC, the provisions of paragraphs (j)(4)(i) and (j)(4)(ii) of this AD apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. If a step or substep is labeled "RC Exempt," then the RC requirement is removed from that step or substep. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

### **(k) Related Information**

For more information about this AD, contact Susan L. Monroe, Aerospace Engineer, Cabin Safety and Environmental Systems Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3570; email: susan.l.monroe@faa.gov.

### **(l) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Special Attention Service Bulletin 747-52-2307, Revision 1, dated May 2, 2018.

(ii) Boeing Special Attention Service Bulletin 747-52-2308, Revision 1, dated June 18, 2018.

(iii) Boeing Special Attention Service Bulletin 757-52-0093, Revision 2, dated November 14, 2017.

(3) For The Boeing Company service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; internet <https://www.myboeingfleet.com>.

(4) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this 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/cfr/ibr-locations.html>.

Issued in Des Moines, Washington, on September 14, 2018.

John P. Piccola,  
Acting Director, System Oversight Division,  
Aircraft Certification Service.