Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain The Boeing Company Model 747-400 and 747-8 series airplanes. This AD was prompted by reports of three opened door 5 right ceiling stowage boxes that fell freely and injured a flight attendant in each event. This AD requires replacing certain snubbers of the door 5 ceiling stowage boxes on certain airplanes, and replacing certain snubbers and changing the location of the snubber attachments on certain other airplanes. This AD also requires an operation check of the stowage boxes or snubber, as applicable, and applicable on-condition actions. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].
ADDRESSES:

AD Docket: You may examine the AD docket at regulations.gov under Docket No. FAA-2022-0985; 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, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

• For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; website myboeingfleet.com.

• You may view this service information at the FAA, Airworthiness Products Section, Operational Safety 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 at regulations.gov under Docket No. FAA-2022-0985.

FOR FURTHER INFORMATION CONTACT: Julie Linn, Aerospace Engineer, Cabin Safety and Environmental Systems Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3684; email: Julie.Linn@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain The Boeing Company Model 747-400 and 747-8 series airplanes. The NPRM published in the Federal Register on September 20, 2022 (87 FR 57422).
The NPRM was prompted by reports of an opened door 5 right ceiling stowage box that fell freely approximately 12 inches on a Model 747-8 airplane, and two additional door 5 ceiling stowage box free fall events on Model 747-400 airplanes. In one reported occurrence, an opened door 5 ceiling stowage box fell freely approximately 10 inches; in another, the stowage box fell freely approximately 8 inches. In each occurrence, a flight attendant was injured. Boeing and the supplier have since investigated and analyzed affected snubbers, part number (P/N) SP5378, used on the door 5 ceiling stowage boxes on Model 747-400 and 747-8 airplanes. It was determined that over time, air can get into the cylinder of the affected snubber and delay its damping functionality, which means the affected snubber will not meet the requirement of the door 5 ceiling stowage boxes to open at a rate of not more than 15 degrees per second, when open more than 2.5 inches. The supplier has designed a replacement snubber, P/N SP26172, which meets those requirements.

In the NPRM, the FAA proposed to require replacing certain snubbers of the door 5 ceiling stowage boxes on certain airplanes, and replacing certain snubbers and changing the location of the snubber attachments on certain other airplanes. The NPRM also proposed to require an operation check of the stowage boxes or snubber, as applicable, and applicable on-condition actions.

The FAA is issuing this AD to address an unlatched door 5 ceiling stowage box, which can open and fall freely more than 2.5 inches, possibly resulting in injury to the flightcrew or maintenance personnel.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from Air Line Pilots Association, International, who supported the NPRM without change.
Conclusion

The FAA reviewed the relevant data, considered the comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. Except for minor editorial changes, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Service Information under 1 CFR Part 51

The FAA reviewed Boeing Special Attention Requirements Bulletin 747-25-3726 RB, dated January 6, 2022. This service information specifies procedures for replacing certain snubbers of the door 5 ceiling stowage boxes on certain airplanes, and replacing certain snubbers and changing the location of the snubber attachments on other airplanes. The service information also specifies procedures for an operation check of the stowage boxes or snubbers, as applicable, to ensure that the free-fall distance is no greater than 2.5 inches, and applicable on-condition actions including a post-snubby-replacement check until eventual replacement of any affected snubber. 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 ADDRESSES.

Costs of Compliance

The FAA estimates that this AD affects 45 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
<th>Cost on U.S. operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Snubber replacement and operation check</td>
<td>2 work-hours X $85 per hour = $170</td>
<td>$3,712</td>
<td>$3,882</td>
<td>$174,690</td>
</tr>
<tr>
<td>Action</td>
<td>Labor cost</td>
<td>Parts cost</td>
<td>Cost per product</td>
<td>Cost on U.S. operators</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------</td>
<td>------------</td>
<td>------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Snubber replacement, snubber attachment relocation, and operation check</td>
<td>7 work-hours X $85 per hour = $595</td>
<td>$4,232</td>
<td>$4,827</td>
<td>$217,215</td>
</tr>
</tbody>
</table>

The FAA estimates the following costs to do any necessary replacement actions that would be required based on the results of the required inspection. The agency has no way of determining the number of aircraft that might need this replacements:

### On-condition costs

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Snubber replacement</td>
<td>1 work-hour X $85 per hour = $85</td>
<td>$928</td>
<td>$1,013</td>
</tr>
<tr>
<td>Post-snubber-replacement check</td>
<td>1 work-hour X $85 per hour = $85</td>
<td>$0</td>
<td>$85</td>
</tr>
</tbody>
</table>

**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.

The FAA is 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) Will not affect intrastate aviation in Alaska, 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.

List of Subjects in 14 CFR Part 39

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

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 airworthiness directive:


   (a) Effective Date

   This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

   (b) Affected ADs

   None.
(c) Applicability

This AD applies to The Boeing Company Model 747-400 and 747-8 series
airplanes, certificated in any category, as identified in Boeing Special Attention

(d) Subject

Air Transport Association (ATA) of America Code 25, Equipment/Furnishings.

(e) Unsafe Condition

This AD was prompted by reports of three opened door 5 right ceiling stowage
boxes that fell freely and injured a flight attendant in each event. The FAA is issuing this
AD to address an unlatched door 5 ceiling stowage box, which can open and fall freely
more than 2.5 inches, possibly resulting in injury to the flightcrew or maintenance
personnel.

(f) Compliance

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

(g) Required Actions

Except as specified by paragraph (h) of this AD: At the applicable times specified
in the “Compliance” paragraph of Boeing Special Attention Requirements Bulletin
747-25-3726 RB, dated January 6, 2022, do all applicable actions identified in, and in
accordance with, the Accomplishment Instructions of Boeing Special Attention

Note 1 to paragraph (g): Guidance for accomplishing the actions required by this
AD can be found in Boeing Special Attention Service Bulletin 747-25-3726, dated
January 6, 2022, which is referred to in Boeing Special Attention Requirements Bulletin
(h) Exceptions to Service Information Specifications

Where the Compliance Time columns of the tables in the “Compliance” paragraph of Boeing Special Attention Requirements Bulletin 747-25-3726 RB, dated January 6, 2022, use the phrase “the original issue date of Requirements Bulletin 747-25-3726 RB,” this AD requires using “the effective date of this AD.”

(i) 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 responsible Flight Standards 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 (j) of this AD. Information may be emailed to 9-ANMSSeattle-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 responsible Flight Standards Office of the responsible Flight Standards 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 Company Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO Branch, FAA, 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.

(j) Related Information

For more information about this AD, contact Julie Linn, Aerospace Engineer, Cabin Safety and Environmental Systems Section, FAA, Seattle ACO Branch, 2200
(k) 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.


(ii) [Reserved]

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; website myboeingfleet.com.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety 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, fr.inspection@nara.gov, or go to www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on November 28, 2022.

Christina Underwood, Acting Director, Compliance & Airworthiness Division, Aircraft Certification Service.