



適航指令發布單

Airworthiness Directive Issuance Form

民航局AD編號 AD number	CAA-2024-09-004	發布日期 Date issued	2024/09/13
適用之航空產品 Applied to (models, serial numbers or part numbers, as applicable)	This AD applies to The Boeing Company Model 777-200, -200LR, -300, -300ER, and 777F series airplanes, certificated in any category, as identified in Boeing Alert Requirements Bulletin 777-47A0007 RB, dated November 21, 2023.		
主旨摘要 Subject	This AD requires installing electrical bonding and grounding, installing the cover plate assembly with new fasteners, and revising the existing maintenance or inspection program, as applicable, to incorporate new airworthiness limitations.		
民航局 CAA	設計國民航主管機構 Original Authority		
<input type="radio"/> 本國產品 Native product	<input checked="" type="radio"/> FAA <input type="radio"/> Germany LBA <input type="radio"/> EASA <input type="radio"/> CAA-NL <input type="radio"/> Brazil <input type="radio"/> UK CAA <input type="radio"/> Transport Canada Civil Aviation <input type="radio"/> Japan CAB <input type="radio"/> DGAC <input type="radio"/> CAA of Israel <input type="radio"/> Other_____		
<input type="radio"/> 其他個案 Other			
	設計國AD編號 Original AD number	2024-15-07	
	1. 直接採用原AD之內容? (Is the original AD directly adopted?) <input checked="" type="radio"/> 是(Yes) <input type="radio"/> 否(No)_ a. 生效日期另訂為(Re-specify the effective date as): b. 執行時限另訂為(Re-specify the compliance time or period as): 2. 使用人是否需要將AD執行結果向民航局提出報告? (Do users need to report the status of compliance to the CAA?) <input type="radio"/> 需要(Yes) <input checked="" type="radio"/> 不需要(No)		
備註 Note	ATA 28. Ref. Boeing Alert Requirements Bulletin 777-47A0007 RB, dated November 21, 2023.		

註： 1. AD內容後附。
2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。
3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6330 / 6332, Fax：(02)2545-8464, adcaa@mail.caa.gov.tw

Note： 1. The AD text is enclosed.
2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval.
3. For further information, please contact Civil Aviation Administration on Tel：(02)2349-6330 / 6332, Fax：(02)2545-8464, adcaa@mail.caa.gov.tw

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-0761; Project Identifier AD-2023-01256-T; Amendment 39-22798; AD 2024-15-07]

RIN 2120-AA64

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 777 airplanes. This AD was prompted by a determination that the nitrogen enriched air distribution system (NEADS) cover plate assembly attached to a certain vent stringer in the center wing tank was installed without a designed electrical bond. This AD requires installing electrical bonding and grounding, installing the cover plate assembly with new fasteners, and revising the existing maintenance or inspection program, as applicable, to incorporate new airworthiness limitations. The FAA is issuing this AD to address the unsafe condition on these products.

DATES:

This AD is effective October 15, 2024.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of October 15, 2024.

ADDRESSES:

AD Docket: You may examine the AD docket at *regulations.gov* under Docket No. FAA-2024-0761; 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 Boeing material identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Boulevard, MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; website myboeingfleet.com.
- You may view this material 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-2024-0761.

FOR FURTHER INFORMATION CONTACT:

Anthony Decaro, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone: 562-627-5374; email: Anthony.D.Decaro@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 777 airplanes. The NPRM published in the **Federal Register** on March 25, 2024 ([89 FR 20555](#)). The NPRM was prompted by a report indicating a production audit by the design approval holder found that the design of the NEADS cover plate assembly did not comply with the requirements for nitrogen generation system certification ([14 CFR 25.981](#)). It was discovered that the NEADS cover plate assembly attached to a certain vent stringer in the center wing tank was installed without a designed electrical bond for electrostatic dissipation. In the NPRM, the FAA proposed to require installing electrical bonding and grounding, installing the cover plate assembly with new fasteners, and revising the existing maintenance or inspection program, as applicable, to incorporate new airworthiness limitations. The FAA is issuing this AD to address the accumulation of electrostatic charge in the cover plate assembly and float valve assembly during airplane refueling, which could lead to electrostatic discharge to the surrounding structure. The unsafe condition, if not addressed, could result in result in an ignition source inside the fuel tank and subsequent fire or explosion.

Discussion of Final Airworthiness Directive

Comments

The FAA received a comment from the Air Line Pilots Association, International (ALPA) who supported the NPRM without change and a comment from United Airlines who reviewed the NPRM and provided no additional comment. The FAA received an additional comment from Boeing. The following presents the comment received on the NPRM and the FAA's response to that comment.

Request To Clarify the Unsafe Condition

Boeing requested the unsafe condition be revised to clarify when the accumulation of electrostatic charge on the vent float valve assembly could occur. Specifically, Boeing requested adding the words “during airplane refueling” to the unsafe condition because the threat of accumulation is only

present during refueling operation when charged fuel is introduced to the fuel tank from the airport refueling infrastructure, and that other airplane operations such as flight do not introduce a threat to the installation.

The FAA agrees with clarifying the unsafe condition. The FAA has revised the Background section and paragraph (e) to clarify that the FAA is issuing this AD to address the accumulation of electrostatic charge in the cover plate assembly and float valve assembly during airplane refueling, which could lead to electrostatic discharge to the surrounding structure.

Conclusion

The FAA reviewed the relevant data, considered any 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, and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Material Incorporated by Reference Under [1 CFR Part 51](#)

The FAA reviewed Boeing Alert Requirements Bulletin 777-47A0007 RB, dated November 21, 2023. This material specifies procedures for removing the cover plate assembly and its attached float valve assembly, installing electrical bonding and grounding, measuring the bonding resistance between the bolt heads/cover plate assembly/float valve assembly mounting flange and the vent stringer No. 15 and between the nuts and the cover plate assembly, and installing the cover plate assembly with new fasteners. This material also specifies revising the operator's maintenance or inspection program, as applicable, by incorporating new airworthiness limitations (AWLs). This material 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

The FAA estimates that this AD affects 292 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Electrical bond installation	27 work-hours × \$85 per hour = \$2,295	\$93	\$2,388	\$697,296

The FAA has determined that revising the existing maintenance or inspection program takes an average of 90 work-hours per operator, although the agency recognizes that this number may vary from operator to operator. Since operators incorporate maintenance or inspection program changes for their affected fleet(s), the FAA has determined that a per-operator estimate is more accurate than a per-airplane estimate. Therefore, the agency estimates the average total cost per operator to be \$7,650 (90 work-hours × \$85 per work-hour).

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:

2024-15-07 The Boeing Company: Amendment 39-22798; Docket No. FAA-2024-0761; Project Identifier AD-2023-01256-T.

(a) Effective Date

This airworthiness directive (AD) is effective October 15, 2024.

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 777-200, -200LR, -300, -300ER, and 777F series airplanes, certificated in any category, as identified in Boeing Alert Requirements Bulletin 777-47A0007 RB, dated November 21, 2023.

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by a determination that the nitrogen enriched air distribution system (NEADS) cover plate assembly attached to vent stringer No. 15 in the center wing tank was installed without a designed electrical bond. The FAA is issuing this AD to address the accumulation of electrostatic charge in the cover plate assembly and float valve assembly during airplane refueling, which could lead to electrostatic discharge to the surrounding structure. The unsafe condition, if not addressed, could result in an ignition source inside the fuel tank and subsequent fire or explosion.

(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 Alert Requirements Bulletin 777-47A0007 RB, dated November 21, 2023, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin 777-47A0007 RB, dated November 21, 2023.

Note 1 to paragraph (g):

Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin 777-47A0007, dated November 21, 2023, which is referred to in Boeing Alert Requirements Bulletin 777-47A0007 RB, dated November 21, 2023.

(h) Exceptions to Service Information Specifications

(1) Where the “Effectivity” paragraph and Compliance Time columns of the tables in the “Compliance” paragraph of Boeing Alert Requirements Bulletin 777-47A0007 RB, dated November 21, 2023, refer to the original issue date of Requirements Bulletin 777-47A0007 RB, this AD requires using the effective date of this AD.

(2) Where the compliance time for “ACTION 3: Incorporate Maintenance Planning Data (MPD),” in the “Compliance” paragraph of Boeing Alert Requirements Bulletin 777-47A0007 RB, dated November 21, 2023, refers to before further flight after accomplishing ACTION 1 and ACTION 2, this AD requires incorporating the MPD within 60 days after the effective date of this AD.

(i) No Alternative Actions, Intervals, or Critical Design Configuration Control Limitations (CDCCLs)

After the existing maintenance or inspection program has been revised as required by paragraph (g) of this AD, no alternative actions (*e.g.*, inspections), intervals, or CDCCLs may be used unless the actions, intervals, and CDCCLs are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (j) of this AD.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, AIR-520, Continued Operational Safety 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 (k)(1) of this AD. Information may be emailed to: AMOC@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.

(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, AIR-520, Continued Operational Safety 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.

(k) Related Information

(1) For more information about this AD, contact Anthony Decaro, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone: 562-627-5374; email: Anthony.D.Decaro@faa.gov.

(2) Material identified in this AD that is not incorporated by reference is available at the address specified in paragraph (l)(3) of this AD.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the material listed in this paragraph under [5 U.S.C. 552\(a\)](#) and [1 CFR part 51](#).

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

(i) Boeing Alert Requirements Bulletin 777-47A0007 RB, dated November 21, 2023.

(ii) [Reserved]

(3) For this material, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Boulevard., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; website *myboeingfleet.com*.

(4) You may view this material 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 material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov.

Issued on September 5, 2024.

Peter A. White,

Deputy Director, Integrated Certificate Management Division, Aircraft Certification Service.

[[FR Doc. 2024-20390](#) Filed 9-9-24; 8:45 am]

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