



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0319; Project Identifier AD-2021-00443-T; Amendment 39-21521; AD 2021-09-08]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain The Boeing Company Model 737-8 and 737-9 airplanes. This AD was prompted by manufacturing design changes to certain metallic support panel assemblies installed in the flight deck, which resulted in insufficient electrical bonding of the panels and consequent insufficient electrical grounding of installed equipment. This AD requires modification of the electrical bonding of these assemblies to provide sufficient electrical grounding for equipment installed in the flight deck. The FAA is issuing this AD to address the unsafe condition on these products.

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

The FAA must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0319; 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 street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Julio Alvarez, Aerospace Engineer, Systems and Equipment Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3500; email: 9-FAA-SACO-AD-Inquiry@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA has received a report of an electrical bonding and grounding issue that was discovered during testing of a newly manufactured Boeing Model 737-8 airplane. During standard production testing by Boeing, electrical power systems did not perform as expected. Investigation identified insufficient bonding of certain metallic support panel assemblies installed in two areas of the flight deck, which affects the electrical grounding of installed equipment. The reported event occurred prior to delivery of that airplane. Investigation identified design changes to the flight deck support panel assemblies, which affected the dedicated bonding and grounding paths that existed prior to the changes. The

affected areas are the P6 panel assembly, including the mounting tray for the standby power control unit (SPCU), located behind the first officer, and the main instrument panel (MIP) assembly located in front of and between the captain and first officer. The issue affects certain Boeing Model 737-8 and 737-9 airplanes manufactured after the design changes were implemented. All affected in-service airplanes passed all testing prior to delivery, and there have been no reported in-service failures due to this condition. However, without dedicated grounding paths implemented by design, there is a potential for degradation or loss of the existing uncontrolled ground paths on those airplanes over time.

Degradation of bonds essential for the electrical grounding of equipment, if not addressed, could affect the operation of certain systems, including engine ice protection, and result in loss of critical functions and/or multiple simultaneous flight deck effects, which may prevent continued safe flight and landing. The FAA is issuing this AD to address the unsafe condition on these products.

All affected airplanes, both in the U.S. and worldwide, have been removed from service, pending development and implementation of approved corrective action that will address the unsafe condition.

FAA's Determination

The FAA is issuing this AD because the agency has determined that the unsafe condition described previously is likely to exist or develop in other products of the same type design.

AD Requirements

This AD requires modifying the electrical bonding of certain support panel assemblies installed in the flight deck to provide sufficient electrical grounding for equipment installed in the flight deck.

The manufacturer is currently developing service information for a modification that will address the unsafe condition identified in this AD. Once this service information is developed, approved, and available, the FAA intends to approve that service information as a method of compliance for the requirements of this AD.

Justification for Immediate Adoption and Determination of the Effective Date

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C. 551 *et seq.*) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for “good cause,” finds that those procedures are “impracticable, unnecessary, or contrary to the public interest.” Under this section, an agency, upon finding good cause, may issue a final rule without providing notice and seeking comment prior to issuance. Further, section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. On April 7, 2021, the FAA was advised by the manufacturer that its design changes to the referenced panel assemblies had created an urgent safety issue. On April 9, 2021, the manufacturer recommended to operators of affected airplanes that such airplanes be removed from service. The FAA has found that the risk to the flying public justifies forgoing notice and comment prior to adoption of this rule because degradation of bonds essential for the electrical grounding of equipment could affect the operation of certain systems, including engine ice protection, and result in loss of critical functions and/or multiple simultaneous flight deck effects, which may prevent continued safe flight and landing. Accordingly, notice and opportunity for prior public comment are impracticable and contrary to the public interest pursuant to 5 U.S.C. 553(b)(3)(B).

In addition, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days, for the same reasons the FAA found good cause to forgo notice and comment.

Comments Invited

The FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under ADDRESSES. Include Docket No. FAA-2021-0319 and Project Identifier AD-2021-00443-T at the beginning of your comments. The most helpful comments reference a specific portion of the final rule, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this final rule.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this AD contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this AD, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this AD. Submissions containing CBI should be sent to Julio Alvarez,

Aerospace Engineer, Systems and Equipment Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3500; email: 9-FAA-SACO-AD-Inquiry@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Regulatory Flexibility Act

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because the FAA has determined that it has good cause to adopt this rule without notice and comment, RFA analysis is not required.

Costs of Compliance

The FAA estimates that this AD affects 71 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
Modify multiple flight deck panels (68 airplanes)	24 work-hours X \$85 per hour = \$2,040	\$200	\$2,240	\$152,320
Modify one flight deck panel (3 airplanes)	9 work-hours X \$85 per hour = \$765	\$100	\$865	\$2,595

The FAA has included all estimated costs in the cost estimate. Some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

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, and
- (2) Will not affect intrastate aviation in Alaska.

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 airworthiness directive:

2021-09-08 The Boeing Company: Amendment 39-21521; Docket

No. FAA-2021-0319; Project Identifier AD-2021-00443-T.

(a) Effective Date

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

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 737-8 and 737-9 airplanes, certificated in any category, line numbers 7399 through 8082 inclusive, with an original airworthiness certificate or original export certificate of airworthiness issued on or before April 9, 2021.

(d) Subject

Air Transport Association (ATA) of America Code 24, Electrical power system.

(e) Unsafe Condition

This AD was prompted by manufacturing design changes to certain metallic support panel assemblies installed in the flight deck. The design changes resulted in insufficient bonding of the panel assemblies and consequent insufficient electrical grounding of installed equipment. Degradation of bonds essential for the electrical grounding of equipment could affect the operation of certain systems, including engine ice protection. The FAA is issuing this AD to prevent loss of critical functions and/or multiple simultaneous flight deck effects, which may prevent continued safe flight and landing.

(f) Compliance

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

(g) Modification

Before further flight, modify the electrical bonding of the support panel assemblies installed in the flight deck to provide sufficient electrical grounding for equipment installed in the flight deck, as specified in paragraphs (g)(1) and (2) of this AD, as applicable, in accordance with a method approved by the Manager, Seattle ACO Branch, FAA.

(1) Modify the electrical bonding of the P6 panel assembly, including the mounting tray for the standby power control unit (SPCU), located behind the first officer.

(2) Modify the electrical bonding of the main instrument panel (MIP) assembly located in front of and between the captain and first officer.

(h) Special Flight Permit

Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199 to operate the airplane to a location where the airplane can be modified, provided the provisions specified in paragraphs (h)(1), (2), and (3) of this AD are met.

(1) The MAX display system (the inboard and outboard captain's and first officer's displays) is operative.

(2) The very high frequency (VHF) communication system (all VHF radios) is operative.

(3) The airplane is modified to improve the grounding path for the SPCU, in accordance with a method approved by the Manager, Seattle ACO Branch, FAA.

(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

Related Information. 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 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 Julio Alvarez, Aerospace Engineer, Systems and Equipment Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3500; email: 9-FAA-SACO-AD-Inquiry@faa.gov.

(k) Material Incorporated by Reference

None.

Issued on April 27, 2021.

Ross Landes, Deputy Director for Regulatory Operations,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2021-09221 Filed: 4/28/2021 2:00 pm; Publication Date: 4/30/2021]