[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2025-3422; Project Identifier AD-2025-00763-T; Amendment 39-23354; AD 2026-10-14]

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 all The Boeing Company Model 747-100, -100B, -100B SUD, -200B, -200C, -200F, -300, -400, -400D, -400F, 747SP, and 747SR series airplanes. This AD was prompted by reports of corrosion damage found on a certain satellite communications (SATCOM) high gain antenna adapter plate. This AD requires repetitive detailed inspections (DETs) of the SATCOM high gain antenna adapter plate for corrosion 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-2025-3422; 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 Westminster Blvd., 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-2025-3422.

FOR FURTHER INFORMATION CONTACT: Camille Seay, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 817-222-5149; email: camille.l.seay@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 The Boeing Company Model 747-100, -100B, -100B SUD, -200B, -200C, -200F, -300, -400, -400D, -400F, 747SP, and 747SR series airplanes. The NPRM was published in the *Federal Register* on September 30, 2025 (90 FR 46771). The NPRM was prompted by reports of corrosion damage found on a certain SATCOM high gain antenna adapter plate. In the NPRM, the FAA proposed to require repetitive DETs of the SATCOM high gain antenna adapter plate for corrosion and applicable on-condition actions. The FAA is issuing this AD to prevent corrosion damage of the SATCOM high gain antenna adapter plates. The unsafe condition, if not

addressed, could result in the SATCOM high gain antenna system parts departing and impacting the airplane, which can cause damage that results in loss of continued safe flight and landing.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from the Air Line Pilots Association, International, (ALPA), Boeing, and a commenter who supported the NPRM without change.

The FAA received additional comments from Cathay Pacific Airways Limited (Cathay) and the Citizens Rulemaking Alliance. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request to Revise the Applicability

Cathay requested that the FAA revise the applicability of the proposed AD to exclude airplanes that have been modified in accordance with a certain supplemental type certificate (STC) to remove the Inmarsat Antenna and the related adapter plates (part numbers (P/Ns) 100-602074-000 and 100-602549-000).

The FAA disagrees. The FAA does not have sufficient information regarding that STC to determine if the modification removes all components associated with the unsafe condition. Operators may request approval of an alternative method of compliance (AMOC) under the provisions of paragraph (i) of this AD for airplanes that have been modified in accordance with the STC. The FAA has not revised this AD in response to this comment.

Request to Justify Forgoing Notice and Comment or Reopen Comment Period

The Citizens Rulemaking Alliance requested that the FAA either provide its justification for finding good cause to bypass notice, if invoked, or reopen the comment period for the non-immediate actions. The commenter asserted the FAA's use of the good

cause exemption appears overbroad given the compliance is 1 month instead of before further flight.

The FAA notes the comment was submitted in response to an NPRM for which the FAA provided a 45-day comment period. This final rule is effective 35 days after its publication in the *Federal Register*. Therefore, no change to this AD is necessary.

Request to Make Incorporation by Reference (IBR) Materials Reasonably Available

The Citizens Rulemaking Alliance requested that the FAA add to the AD docket all materials incorporated by reference and extend the comment period by at least 45 days after adding the material to the docket. The commenter stated that the FAA's current practices for IBR frequently fail to meet the legal and regulatory standards for reasonable availability.

The FAA disagrees with extending the comment period. In the preamble of the NPRM, the FAA notified the public that the IBR material would be available for review at regulations.gov under Docket No. FAA-2025-3422. This material was posted to the AD docket on October 1, 2025. Therefore, no change to this AD is necessary.

Request to Comply with the Paperwork Reduction Act (PRA)

The Citizens Rulemaking Alliance requested that the FAA revise the AD to comply with the PRA if reporting is required. If reporting is not required, the commenter requested the FAA clarify that in the AD.

The FAA notes this AD does not require reporting. If an AD were to require reporting, the preamble of the AD would include a paragraph titled "Paperwork Reduction Act" that would provide the applicable OMB control number, required PRA statements, and the estimated time to collect the required information (burden). Any costs associated with the reporting requirement would be included in the Costs of Compliance section in the preamble of the AD. Therefore, the FAA did not change this AD as a result of this comment.

Request to Consider Impact on Small Entities

The Citizens Rulemaking Alliance requested that the FAA either prepare an initial regulatory flexibility analysis, or provide the factual basis for its Regulatory Flexibility Act (RFA) certification that the AD will not have a significant economic impact on a substantial number of small entities including significant alternatives considered to minimize the burden on small operators without compromising safety.

The FAA provides the following clarification. The RFA of 1980 (5 U.S.C. 601-612), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104-121) and the Small Business Jobs Act of 2010 (Pub. L. 111-240), requires Federal agencies to consider the effects of the regulatory action on small business and other small entities and to minimize any significant economic impact. The term "small entities" comprises small businesses and not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000.

This AD will affect 11 domestic entities, of which eight are small entities. The table below displays the industries of the small entities, their average annual revenue, and the AD's estimated cost burden relative to average annual revenue.

Number of Small Entities Affected by Industry and Cost Significance

Number of Affected Entities	NAICS[1] Code	Description[2]	Number of Affected Airplanes	Average Annual Revenue	Cost per AD/Annual Revenue
1	532411	Commercial Air, Rail, and Water Transportation Equipment Rental and Leasing	1	$1,000,000	0.09%
1	423860	Transportation Equipment and Supplies Merchant Wholesalers	1	$5,590,000	0.02%
1	481219	Other Freight Air Transportation	2	$221,410	0.84%
1	481112	Scheduled Freight Air Transportation	2	$10,330,000	0.02%
1	481212	Nonscheduled Chartered Freight Air Transportation	2	$58,110	3.22%
1	481212	Nonscheduled Chartered Freight Air Transportation	4	$48,450,000	0.01%
1	481212	Nonscheduled Chartered Freight Air Transportation	9	$55,250,000	0.02%
1	481212	Nonscheduled Chartered Freight Air Transportation	24	$390,000,000	0.01%

[1] North American Industrial Classification System

[2] Dun & Bradstreet. D&B Hoovers. Retrieved April 16, 2026. app.hoovers.dnb.com.

While the FAA has determined that this AD affects a substantial number of small entities, the compliance cost of the AD relative to each small entity's annual revenue is minimal. The FAA estimates the total cost per affected airplane to be $935 (11 work-hours x $85 per work-hour). There is one small business operator whose revenue impact exceeds 3% based on the number of affected airplanes in their fleet, however, seven small business entities have impacts that are below 1% of the average small entity's annual revenue. Therefore, as provided in section 605(b), the FAA certifies this AD will not result in a significant economic impact on a substantial number of small entities. The FAA did not change this AD as a result of this comment.

Request to Provide Additional Cost Information

The Citizens Rulemaking Alliance requested that the FAA provide an explicit Unfunded Mandates Reform Act (UMRA) determination and a more complete cost analysis. The commenter stated that, in addition to estimated costs provided in the proposed AD, the FAA should also consider airplane downtime, scheduling disruptions, ferry flight and maintenance positioning, cost of special tools, pricing of scarce parts, engineering and planning time for unique configurations, and the ongoing cost of repetitive inspections.

The FAA notes that in the preamble of the proposed AD, the FAA certified that this regulation is not a "significant regulatory action" under Executive Order 12866 and will not have an annual effect on the economy of $100 million or more. Further, in the Costs of Compliance section of the proposed AD, the FAA disclosed the number of affected airplanes on the U.S. registry and the number of work hours per affected airplane to estimate the cost of the AD on all U.S.-operators per inspection cycle. The inspection must be repeated every 48 or 96 months, depending on findings. The FAA did not disclose an estimated parts cost since this AD does not require any parts.

Additionally, the FAA considered the impact that this AD will have on affected operators and determined this AD will not trigger any downtime costs or scheduling disruptions because the requirements of this AD can be performed during regularly scheduled maintenance. Since the FAA has assessed and disclosed the total known costs of the AD requirements in the Costs of Compliance section of the proposed AD, and the commenter did not provide additional cost data for the FAA to consider in its cost analysis, it is not necessary to provide additional information in the AD docket. The FAA did not change this AD as a result of this comment.

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, 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 747-23A2628 RB, dated April 18, 2025. This material specifies procedures for repetitive DETs of the SATCOM high gain antenna adapter plates for corrosion and applicable on-condition actions. On-condition actions include repairing the SATCOM high gain antenna adapter plate or replacing it with a new or serviceable SATCOM high gain antenna adapter plate if any corrosion found is less than or equal to 0.005 inch in depth; and replacing the SATCOM high gain antenna adapter plate with a new or serviceable SATCOM high gain antenna adapter plate if any corrosion found is greater than 0.005 inch in depth. 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 115 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
Detailed inspection	11 work-hours X $85[1] per hour = $935 per inspection cycle	$0	$935 per inspection cycle	$107,525 per inspection cycle

[1] The FAA estimated operators would incur $85 in costs per labor hour, which is the weighted average fiscal year (FY) 2026 fully loaded wage of an aircraft mechanic ($69.85) working 60% of the labor hours and a general and operations manager ($108.15)

working 40% of the labor hours. The FAA estimated these wages by taking average the FY 2024 Bureau of Labor Statistics (BLS) air transportation industry average wage for aircraft mechanics and general and operations managers (See: *Occupational Employment and Wage Statistics Query System*, BLS (May 2024), data.bls.gov/oes/); multiplying each wage by a fringe benefit factor of 1.42 (See: *Employer Cost for Employee Compensation - December 2024*, BLS (2024), bls.gov/news.release/archives/ecec_03142025.pdf); and adjusting these 2024 wages to 2026 dollars using an implicit Gross Domestic Product (GDP) Price Deflator of 2.8% (See: *Gross Domestic Product: Implicit Price Deflator,* FRED (2026) fred.stlouisfed.org/series/GDPDEF).

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

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Repair adapter plate	5 work-hour X $85 per hour = $425	$0	$425
Replace adapter plate	2 work-hour X $85 per hour = $170	$18,000	$18,170

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:

2026-10-14 The Boeing Company: Amendment 39-23354; Docket No. FAA-2025-3422; Project Identifier AD-2025-00763-T.

(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 all The Boeing Company Model 747-100, -100B, -100B SUD, -200B, -200C, -200F, -300, -400, -400D, -400F, 747SP, and 747SR series airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 23, Communications system.

(e) Unsafe Condition

This AD was prompted by reports of corrosion damage found on a certain satellite communications (SATCOM) high gain antenna adapter plate. The FAA is issuing this AD to prevent corrosion damage of the SATCOM high gain antenna adapter plates. The unsafe condition, if not addressed, could result in the SATCOM high gain antenna system parts departing and impacting the airplane, which can cause damage that results in loss of continued safe flight and landing.

(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 747-23A2628 RB, dated April 18, 2025, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin 747-23A2628 RB, dated April 18, 2025.

Note 1 to paragraph (g): Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin 747-23A2628, dated April 18,

2025, which is referred to in Boeing Alert Requirements Bulletin 747-23A2628 RB, dated April 18, 2025.

(h) Exception to Requirements Bulletin Specifications

Where Boeing Alert Requirements Bulletin 747-23A2628 RB, dated April 18, 2025, refers to the original issue date of Requirements Bulletin 747-23A2628 RB, this AD requires using the effective date of this AD.

(i) 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 Continued Operational Safety Branch, send it to the attention of the person identified in paragraph (j)(1) of this AD. Information may be emailed to: AMOC@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) 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.

(j) Additional Information

(1) For more information about this AD, contact Camille Seay, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 817-222-5149; email: camille.l.seay@faa.gov.

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

(k) 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 747-23A2628 RB, dated April 18, 2025.

(ii) [Reserved]

(3) For Boeing material 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 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 May 11, 2026.

Lona C. Saccomando,
Acting Deputy Director, Integrated Certificate Management Division,
Aircraft Certification Service.
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