



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2025-3426; Project Identifier AD-2025-00342-T;

Amendment 39-23377; AD 2026-12-07]

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 787-8, 787-9, and 787-10 airplanes. This AD was prompted by reports of an uncommanded change to the mode control panel (MCP) selected altitude. This AD requires replacing the existing MCP with an updated MCP and performing an installation test. 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](https://www.regulations.gov) under Docket No. FAA-2025-3426; 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 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-2025-3426.

FOR FURTHER INFORMATION CONTACT: Michael Closson, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3973; email: Michael.P.Closson@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 787-8, 787-9, and 787-10 airplanes. The NPRM was published in the *Federal Register* on November 17, 2025 (90 FR 51225). The NPRM was prompted by reports of an uncommanded change to the MCP selected altitude. In the NPRM, the FAA proposed to require replacing the existing MCP with an updated MCP and performing an installation test. The FAA is issuing this AD to address uncommanded changes to the MCP selected altitude. The unsafe condition, if not addressed, could result in controlled flight into terrain (CFIT) or traffic conflict, which may result in mid-air collision.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from the Air Line Pilots Association, International, (ALPA), Boeing, KLM Royal Dutch Airlines, and United Airlines who supported the NPRM without change.

The FAA received additional comments from Etihad Airways and the Citizens Rulemaking Alliance. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request to Prohibit the Installation of Affected Parts

Etihad Airways requested that the FAA add a requirement to prohibit the installation of MCP, part numbers (P/Ns) 4091640-901, 4091640-902, and 4091640-903 as of the effective date of the AD.

The FAA does not agree that it is necessary to prohibit the installation of the affected parts as of the effective date of the AD. There are very few affected spares in operators' inventories because the MCP is not typically replaced in service. Further, due to the limited availability of new unaffected parts, a few new unaffected parts will be made available to each affected operator. The FAA expects that affected operators will likely remove and return an affected part to the supplier for retrofit, and that the new unaffected part will be installed on the airplane while the affected part is upgraded. Therefore, no change to this AD is necessary in this regard.

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, or convert this action to an NPRM. The commenter asserted the FAA has not adequately justified use of the good cause exemption.

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 make IBR material available and free to the public during the comment period. The commenter stated that the FAA should describe in the preamble of the AD how the FAA has ensured IBR material is reasonably available in accordance with 1 CFR 51.5 and 51.9.

The FAA notes that in the preamble of the NPRM, the public was notified that the IBR material would be available for review under Docket No. FAA-2025-3426 at [regulations.gov](https://www.regulations.gov). This material was posted to the AD docket on November 17, 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. The commenter asserted that many ADs applicable to Boeing airplanes do not comply with the PRA.

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.

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. The FAA analyzed the cost impact of this AD on small entities and determined the following:

Small Entities to Which the Rule Will Apply

The FAA used the definition of small entities in the RFA for this analysis. The RFA defines small entities as small businesses, small governmental jurisdictions, or small organizations. In 5 U.S.C. section 601(3), the RFA defines “small business” to have the same meaning as “small business concern” under section 3 of the Small Business Act. The Small Business Act authorizes the Small Business Administration (SBA) to define “small business” by issuing regulations.

SBA (2023) has established size standards for various types of economic activities, or industries, under the North American Industry Classification System (NAICS). These size standards generally define small businesses based on the number of employees or annual receipts. The “Small Business Size Standards” table shows the SBA size standards for all industries with at least 1 impacted entity.¹ Note that the SBA

¹ FAA does not have entity data on 1 of the 135 affected airplanes, and those airplanes with missing entity data are excluded from this analysis.

definition of a small business applies to the parent company and all affiliates as a single entity.

Small Business Size Standards

NAICS Code	Description	Size Standard
481111	Scheduled Passenger Air Transportation	1,500 employees
523910	Miscellaneous Intermediation	\$41.5 million

To identify small entities, the FAA first identified the primary NAICS of the entity or parent company, and then used data from different sources (e.g., company annual reports, Bureau of Transportation Statistics) to determine whether the entity meets the applicable size standard. The “Estimated Number of Small Entities” table provides a summary of the results.

Estimated Number of Small Entities

Category	Number of Entities	Affected Airplanes	Number of Small Entities	Percent of Small Entities
Scheduled Passenger Air Transportation	3	133	0	0%
Miscellaneous Intermediation	1	1	1	100%
Total	4	134	1	25%

Projected Reporting, Recordkeeping, and Other Compliance Requirements

FAA estimates the affected entity will incur a compliance cost of up to \$405,170. However, the FAA notes that the manufacturer of the MCP (Honeywell) has stated that some or all of the costs of retrofitting the MCP to P/N 4091640-904 may be covered under warranty, thereby reducing the cost impact on the affected operator. If a part is retrofitted, purchasing a new part is unnecessary. The “Average Cost of Compliance Per Small Entity” table displays the estimated compliance cost for the miscellaneous intermediation industry.

Average Cost of Compliance Per Small Entity

NAICS Code	Description	Affected Small Entities	Average Annual Revenue	Average Per-Entity Impact (Cost/Revenue)
523910	Miscellaneous Intermediation	1	\$1,920,000	21.1%

Significant Alternatives Considered

FAA evaluated the alternative of not promulgating this AD but ultimately deemed that this alternative would create a significant safety hazard. The FAA is issuing this AD to address uncommanded changes to the MCP selected altitude. The unsafe condition, if not addressed, could result in CFIT or traffic conflict, which may result in mid-air collision.

Request to Provide Additional Cost Information

The Citizens Rulemaking Alliance requested that the FAA add to the AD docket the cost assumptions (fleet size, labor rates, parts costs, and airplane downtime) supporting the FAA's certification that this AD is not a "significant regulatory action" under Executive Order 12866. The commenter also stated that the AD should specify whether the Unfunded Mandates Reform Act (UMRA) applies.

In the Costs of Compliance section of the proposed AD, the FAA disclosed the number of affected airplanes on the U.S. registry, estimated number of work hours and parts costs provided by the manufacturer, and the aggregate costs. Additionally, the FAA considered the impact that this AD will have on affected operators and determined this AD will not trigger any downtime costs 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.

Further, the FAA has determined that the current labor rate of \$85 per hour remains accurate for this AD. The FAA evaluates this rate periodically, based on U.S. Department of Labor Statistic (BLS) data found at <https://data.bls.gov/oes>, and will change the rate when appropriate. The FAA used a blended wage rate to estimate the labor rate for this AD, where the FAA assumes 60 percent weight for aircraft mechanics (at a fully burdened mean wage rate of \$69.85 per hour) and 40 percent for general and operations managers (at a fully burdened mean wage rate of \$108.15 per hour). To calculate the blended wage rate, the FAA multiplied each wage rate by its corresponding weight and added up the products to obtain a wage rate of \$85.17, which the FAA rounded down to \$85.

Based upon the analysis provided throughout the proposed AD and in the previous comment response, the FAA certifies that this AD is not a “significant regulatory action” under Executive Order 12866. 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 B787-81205-SB220004-00 RB, Issue 001, dated April 22, 2025. This material specifies procedures for replacing the existing MCP P/Ns 4091640-901, 4091640-902, and 4091640-903 with MCP P/N 4091640-904 and performing the MCP installation test until the test passes.

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 163 airplanes of U.S. registry, of which 28 are registered to 2 foreign air carriers. 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
MCP replacement and installation test	2 work-hours X \$85 per hour = \$170	Up to \$405,000*	Up to \$405,170	Up to \$66,042,710

*This is the estimated cost for a replacement MCP. However, the FAA notes that the manufacturer of the MCP (Honeywell) has stated that some or all of the costs of retrofitting the MCP to part number 4091640-904 may be covered under warranty, thereby reducing the cost impact on affected operators. If a part is retrofitted, purchasing a new part is unnecessary.

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:

2026-12-07 The Boeing Company: Amendment 39-23377; Docket No. FAA-2025-3426; Project Identifier AD-2025-00342-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 The Boeing Company Model 787-8, 787-9, and 787-10 airplanes, certificated in any category, as identified in Boeing Alert Requirements Bulletin B787-81205-SB220004-00 RB, Issue 001, dated April 22, 2025.

(d) Subject

Air Transport Association (ATA) of America Code 22, Auto flight.

(e) Unsafe Condition

This AD was prompted by reports of an uncommanded change to the mode control panel (MCP) selected altitude. The FAA is issuing this AD to address uncommanded changes to the MCP selected altitude. The unsafe condition, if not addressed, could result in controlled flight into terrain (CFIT) or traffic conflict, which may result in mid-air collision.

(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 B787-81205-SB220004-00 RB, Issue 001, dated April 22, 2025, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin B787-81205-SB220004-00 RB, Issue 001, dated April 22, 2025.

Note 1 to paragraph (g): Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin B787-81205-SB220004-00, Issue 001, dated April 22, 2025, which is referred to in Boeing Alert Requirements Bulletin B787-81205-SB220004-00 RB, Issue 001, dated April 22, 2025.

(h) Exceptions to Service Bulletin Specifications

Where the Boeing Recommended Compliance Time column of the table in the “Compliance” paragraph of Boeing Alert Requirements Bulletin B787-81205-SB220004-00 RB, Issue 001, dated April 22, 2025, refers to the Issue 001 date of Requirements Bulletin B787-81205-SB220004-00 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 certification office, 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 Michael Closson, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3973; email: Michael.P.Closson@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 B787-81205-SB220004-00 RB, Issue 001, dated April 22, 2025.

(ii) [Reserved]

(3) For Boeing material 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; 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 June 10, 2026.

Brian Knaup,
Acting Deputy Director, Integrated Certificate Management Division,
Aircraft Certification Service.
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