



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-1287; Project Identifier AD-2023-00992-T]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede Airworthiness Directive (AD) 2012-07-06, which applies to certain The Boeing Company Model 777 airplanes. AD 2012-07-06 requires revising the maintenance program to update inspection requirements to detect fatigue cracking of principal structural elements. Since the FAA issued AD 2012-07-06, the FAA has determined that new and more restrictive airworthiness limitations are necessary. This proposed AD would retain the requirements of AD 2012-07-06 until the new or more restrictive airworthiness limitations are incorporated. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed 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 [regulations.gov](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.

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-1287; 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 NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For Boeing material, 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 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](https://www.regulations.gov) by searching for and locating Docket No. FAA-2024-1287.

FOR FURTHER INFORMATION CONTACT: Luis Cortez-Muniz, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3958; email: Luis.A.Cortez-Muniz@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2024-1287; Project Identifier AD-2023-00992-T” at the beginning of

your comments. The most helpful comments reference a specific portion of the proposal, 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 the proposal 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 regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposed AD.

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 NPRM 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 NPRM, 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 NPRM. Submissions containing CBI should be sent to Luis Cortez-Muniz, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3958; email: Luis.A.Cortez-Muniz@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.

Background

The FAA issued AD 2012-07-06, Amendment 39-17012 (77 FR 21429, April 10, 2012) (AD 2012-07-06), for The Boeing Company Model 777-200, -200LR, -300,

-300ER, and 777F series airplanes with an original airworthiness certificate or original export certificate of airworthiness issued before September 1, 2010. AD 2012-07-06 was prompted by a new revision to the airworthiness limitations (AWLs) of the maintenance planning document (MPD). AD 2012-07-06 requires revising the maintenance program to update inspection requirements to detect fatigue cracking of principal structural elements (PSEs). The agency issued AD 2012-07-06 to ensure that fatigue cracking of various PSEs is detected and corrected; such fatigue cracking could adversely affect the structural integrity of these airplanes. AD 2012-07-06 does not apply to airplanes with an original airworthiness certificate or original export certificate of airworthiness issued on or after September 1, 2010, since those airplanes were delivered with Instructions for Continued Airworthiness containing the AWLs mandated by AD 2012-07-06.

Actions Since AD 2012-07-06 Was Issued

Since the FAA issued AD 2012-07-06, new and more restrictive airworthiness limitations are necessary. The inspections and life limits have been updated in the latest revision to the AWLs of the MPD and the damage tolerance rating (DTR) Check Form Document. The DTR document defines inspection options and the damage tolerance ratings necessary to develop the structural inspections required by the AWLs. Airplanes with an original airworthiness certificate or original export certificate of airworthiness issued after January 5, 2024, were delivered with Instructions for Continued Airworthiness containing these new and revised requirements.

FAA's Determination

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Related Service Information under 1 CFR Part 51

The FAA reviewed Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622W001-9, Revision December 2022, of the Boeing 777-200/200LR/300/300ER/777F Maintenance Planning Data (MPD) Document. Subsection B, Airworthiness Limitations-Structural Inspections and Subsection C, Airworthiness Limitations-Structural Safe-Life Limits, of this service information contains airworthiness limitations for structural inspections and structural life limits, among other limitations.

The FAA also reviewed Boeing 777-200/200LR/300/300ER/777F Damage Tolerance Rating (DTR) Check Form Document, D622W001-DTR, dated December 2022. This service information provides the DTR check forms and the procedure for their use.

This proposed AD would also require Section 9, “Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs),” D622W001-9, Revision July 2011, of the Boeing 777 MPD Document, which the Director of the Federal Register approved for incorporation by reference as of May 15, 2012 (77 FR 21429, April 10, 2012).

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 the ADDRESSES section.

Proposed AD Requirements in this NPRM

For airplanes with an original airworthiness certificate or original export certificate of airworthiness issued before September 1, 2010, this proposed AD would retain all the requirements of AD 2012-07-06. For airplanes with an original airworthiness certificate or original export certificate of airworthiness issued before January 4, 2024, this proposed AD would require revising the existing maintenance or

inspection program to incorporate new and more restrictive airworthiness limitations, which would then terminate the retained requirements of AD 2012-07-06. This proposed AD would also require sending inspection results to Boeing.

Differences Between this Proposed AD and the Service Information

This proposed AD would require that the reports specified in Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622W001-9, Revision December 2022, of the Boeing 777-200/200LR/300/300ER/777F Maintenance Planning Data (MPD) Document; and Boeing 777-200/200LR/300/300ER/777F Damage Tolerance Rating (DTR) Check Form Document, D622W001-DTR, dated December 2022, be submitted within 10 days after the airplane is returned to service, instead of 10 days after each individual finding as specified in the documents.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 325 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

The FAA estimates the total cost per operator for the retained actions from AD 2012-07-06 to be \$7,650 (90 work-hours x \$85 per work-hour).

The FAA has determined that revising the existing maintenance or inspection program takes an average of 90 work-hours per operator, although the FAA 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.

The FAA estimates the total cost per operator for the new proposed actions to be \$7,650 (90 work x hours x \$85 per work-hour).

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Reporting	1 work-hour X \$85 per hour = \$85	\$0	\$85

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

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

The FAA has determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 the proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would 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 Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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:

- a. Removing Airworthiness Directive (AD) 2012-07-06, Amendment 39-17012

(77 FR 21429, April 10, 2012), and

b. Adding the following new AD:

The Boeing Company: Docket No. FAA-2024-1287; Project Identifier AD-2023-00992-T.

(a) Comments Due Date

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

(b) Affected ADs

This AD replaces AD 2012-07-06, Amendment 39-17012 (77 FR 21429, April 10, 2012) (AD 2012-07-06).

(c) Applicability

This AD applies to The Boeing Company Model 777-200, -200LR, -300, -300ER, and 777F series airplanes, certificated in any category, with an original airworthiness certificate or original export certificate of airworthiness issued before January 5, 2024.

(d) Subject

Air Transport Association (ATA) of America Code27, Flight Controls; 28, Fuel; 32, Landing Gear; 52, Doors; 53, Fuselage; 54, Nacelles/Pylons; 55, Stabilizers; 57, Wings.

(e) Unsafe Condition

This AD was prompted by new revisions to the airworthiness limitations of the maintenance planning document and damage tolerance rating check form document. The FAA is issuing this AD to address fatigue cracking of various principal structural elements. The unsafe condition, if not addressed, could adversely affect the structural integrity of the airplane.

(f) Compliance

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

(g) Retained Revision of Maintenance Program with No Changes

This paragraph restates the requirements of paragraph (g) of AD 2012-07-06, with no changes. For airplanes with an original airworthiness certificate or original export certificate of airworthiness issued before September 1, 2010: Comply with the requirements of paragraphs (g)(1) through (3) of this AD. Accomplishing the revision of the existing maintenance or inspection program required by paragraph (i) of this AD terminates the requirements of this paragraph.

(1) Within 12 months after May 15, 2012 (the effective date of AD 2012-07-06), revise the maintenance program by incorporating the information in Subsection B, Airworthiness Limitations-Structural Inspections, of Section 9, “Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs),” D622W001-9, Revision July 2011, of the Boeing 777 Maintenance Planning Data (MPD) Document, except as provided by paragraph (h) of this AD.

(2) The initial compliance time for the inspections is within the applicable times specified in Subsection B, Airworthiness Limitations-Structural Inspections, of Section 9, of “Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs),” D622W001-9, Revision July 2011, of the Boeing 777 Maintenance Planning Data (MPD) Document, or within 18 months after May 15, 2012 (the effective date of AD 2012-07-06), whichever occurs later, or within the applicable time specified in Subsection B, Airworthiness Limitations-Structural Inspections, of Section 9, “Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs),” D622W001-9, Revision July 2011, of the Boeing 777 Maintenance Planning Data (MPD) Document, from the time of installation for new parts.

(3) Reports specified in Section 9, “Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs),” D622W001-9, Revision July 2011, of the Boeing 777 Maintenance Planning Data (MPD) Document may be submitted within

10 days after the airplane is returned to service, instead of 10 days after each individual finding as specified in this document.

(h) Retained Alternative Inspections and Inspection Intervals with an Additional Exception

This paragraph restates the requirements of paragraph (h) of AD 2012-07-06, with an additional exception. After accomplishing the actions required by paragraph (g) of this AD, no alternative inspections or inspection intervals may be used unless the alternative inspection or interval is required by paragraph (i) of this AD or approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (k) of this AD.

(i) Revision of Maintenance or Inspection Program

(1) Within 12 months after the effective date of this AD, revise the existing maintenance or inspection program by incorporating the information in Subsection B, Airworthiness Limitations-Structural Inspections and Subsection C, Airworthiness Limitations-Structural Safe-Life Limits, of Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622W001-9, Revision December 2022, of the Boeing 777-200/200LR/300/300ER/777F Maintenance Planning Data (MPD) Document; and in Boeing 777-200/200LR/300/300ER/777F Damage Tolerance Rating (DTR) Check Form Document, D622W001-DTR, dated December 2022.

(2) The initial compliance time for the tasks is within the applicable times specified in Subsection B, Airworthiness Limitations-Structural Inspections and Subsection C, Airworthiness Limitations-Structural Safe-Life Limits, of Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622W001-9, Revision December 2022, of the Boeing 777-200/200LR/300/300ER/777F MPD Document; and in Boeing 777-200/200LR/300/300ER/777F DTR Check Form Document, D622W001-DTR, dated

December 2022, or within 12 months after the effective date of this AD, whichever occurs later.

(3) Reports specified in Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622W001-9, Revision December 2022, of the Boeing 777-200/200LR/300/300ER/777F MPD Document; and in Boeing 777-200/200LR/300/300ER/777F DTR Check Form Document, D622W001-DTR, dated December 2022 may be submitted within 10 days after the airplane is returned to service, instead of 10 days after each individual finding as specified in the documents.

(j) Alternative Inspections and Inspection Intervals

After accomplishing the actions required by paragraph (i) of this AD, no alternative inspections or inspection intervals may be used unless the alternative inspection or interval is approved as an AMOC in accordance with the procedures specified in paragraph (k) of this AD.

(k) 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 (l) 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.

(4) AMOCs approved for AD 2012-07-06 are approved as AMOCs for the corresponding provisions of paragraph (g) of this AD.

(5) AMOCs approved for repairs and alterations for AD 2012-07-06 are approved as AMOCs for the corresponding provisions of paragraph (i) of this AD. All other AMOCs approved for AD 2012-07-06 are not approved as AMOCs for the corresponding provisions of paragraph (i) of this AD.

(l) Related Information

For more information about this AD, contact Luis Cortez-Muniz, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3958; email: Luis.A.Cortez-Muniz@faa.gov.

(m) 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 this AD specifies otherwise.

(3) The following service information was approved for IBR on [DATE 35 DAYS AFTER PUBLICATION OF THE FINAL RULE].

(i) Section 9, Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D622W001-9, Revision December 2022, of the Boeing 777-200/200LR/300/300ER/777F Maintenance Planning Data (MPD) Document.

(ii) Boeing 777-200/200LR/300/300ER/777F Damage Tolerance Rating (DTR)

Check Form Document, D622W001-DTR, dated December 2022.

(4) The following service information was approved for IBR on May 15, 2012 (77 FR 21429, April 10, 2012).

(i) Section 9, “Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs),” D622W001-9, Revision July 2011, of the Boeing 777 Maintenance Planning Data (MPD) Document.

(ii) [Reserved]

(5) For Boeing material, 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.

(6) 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.

(7) 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 April 26, 2024.

James D. Foltz,
Deputy Director, Compliance & Airworthiness Division,
Aircraft Certification Service.

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