[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0816; Project Identifier AD-2022-00355-T]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Supplemental notice of proposed rulemaking (SNPRM).

SUMMARY: The FAA is revising a notice of proposed rulemaking (NPRM) that applied to certain The Boeing Company Model 747-8 and -8F series airplanes. This action revises the NPRM by revising certain compliance times. The FAA is proposing this airworthiness directive (AD) to address the unsafe condition on these products. Since these actions would impose an additional burden over that in the NPRM, the FAA is requesting comments on this SNPRM.

DATES: The comment period for the NPRM published in the *Federal Register* on September 8, 2022 (87 FR 54917), is reopened.

The FAA must receive comments on this SNPRM 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. 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 under Docket No. FAA-2022-0816; 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 SNPRM, any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

• For service information identified in this SNPRM, 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 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 by searching for and locating Docket No. FAA-2022-0816.

FOR FURTHER INFORMATION CONTACT: Stefanie Roesli, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3964; email: stefanie.n.roesli@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-2022-0816; Project Identifier AD-2022-00355-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 again revise this 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 SNPRM 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 SNPRM, 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 SNPRM. Submissions containing CBI should be sent to Stefanie Roesli, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3964; email: stefanie.n.roesli@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 an NPRM to amend 14 CFR part 39 by adding an AD that would apply to certain The Boeing Company Model 747-8 and -8F series airplanes. The NPRM published in the *Federal Register* on September 8, 2022 (87 FR 54917). The NPRM was prompted by reports of cracking in stringers and splice fittings located at stringer splices at multiple body stations. In the NPRM, the FAA proposed to require an inspection of each free flange of the stringers at the stringer splice for the presence of radius fillers at fastener locations, an inspection for cracking of the stringers and stringer splice fittings at certain stringer splice locations, and applicable on-condition actions.

Actions Since the NPRM was Issued

Since the FAA issued the NPRM, the FAA has received additional reports of cracked stringers, with a total of 595 cracked stringers reported since the issue was initially evaluated in 2020. In May 2022, cracked stringers were found in a location where the previously repaired stringer location had accumulated zero flight cycles (FC) since the repair. Due to the large number of crack findings and the unknown long-term reliability of repairs, combined with airplanes with low utilization rates that may not reach the initial compliance time in the NPRM (before 12,000 total flight cycles or within 38 months after the effective date of this AD, whichever occurs later) for an extended period of time, the FAA determined that it is necessary to add a calendar-based compliance time for certain actions. The FAA has therefore determined that a more appropriate compliance time for the initial inspections is before 12,000 total FC, or within 8 years after the date of issuance of the original certificate of airworthiness or the original export certificate of airworthiness, whichever occurs first; or within 38 months after the effective date of this AD; whichever occurs later. The FAA has also determined that a calendar-based compliance time should be added to the repeat inspection intervals too.

Comments

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

The FAA received additional comments from a commenter, United Parcel Service (UPS), who supported the NPRM and had additional comments. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request for Revisions in the Costs of Compliance

UPS requested that the Costs of Compliance section be revised to better represent the full economic impact to operators. UPS stated that there are 40 locations on a Model 747-8F airplane where multiple inspections would be performed, and any of those locations could need repair. UPS pointed out that the Estimated Costs table provides a cost estimate as if inspections were required only at one location. UPS suggested revising the Estimated Costs table to, at a minimum, multiply the cost by 40. UPS also suggested revising the On Condition Cost table to clarify that the on-condition cost could happen in multiple locations if cracks or radius fillers are found.

The FAA agrees the Costs of Compliance section could be revised to clarify and better represent the full cost. The Estimated Costs table has been revised to provide an estimate based on up to 40 inspection locations per airplane. The On-condition Costs table has been revised to clarify that those costs are per inspection location or replacement, as applicable.

FAA's Determination

The FAA is proposing this AD after determining the unsafe condition described previously is likely to exist or develop in other products of the same type design. Certain changes described above expand the scope of the NPRM. As a result, it is necessary to

reopen the comment period to provide additional opportunity for the public to comment on this SNPRM.

Related Service Information under 1 CFR Part 51

The FAA reviewed Boeing Alert Requirements Bulletin 747-53A2907 RB, dated March 3, 2022. This service information specifies procedures for an inspection of each free flange of the stringers at the stringer splice for the presence of radius fillers at fastener locations, an inspection for cracking of the stringers and stringer splice fittings at certain stringer splice locations, and applicable on-condition actions. On-condition actions include follow-on detailed inspections for cracking or the presence of radius fillers, removal or installation of radius fillers, and repair. 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 ADDRESSES.

Proposed AD Requirements in this SNPRM

This proposed AD would require accomplishing the actions specified in the service information already described, except for any differences identified as exceptions in the regulatory text. For information on the procedures and compliance times, see this service information at regulations.gov by searching for and locating Docket No. FAA-2022-0816.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 40 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection for radius filler	Up to 124 work-hours X $85 per hour = $10,540	None	Up to $10,540	Up to $421,600

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection for cracking	Up to 244 work-hours X $85 per hour = $20,740	None	Up to $20,740	Up to $829,600

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

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Inspection for cracking or for radius fillers	1 work-hour X $85 per hour = $85	None	$85 per inspection location
Removing radius fillers and inspection	7 work-hours X $85 per hour = $595	None	$595 per location
Replacement of cracked splice channel	300 work-hours X $85 per hour = $25,500	$809	$26,309 per replacement

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some or all of the costs of this proposed 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

The FAA 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 this 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 adding the following new airworthiness directive:

The Boeing Company: Docket No. FAA-2022-0816; Project Identifier AD-2022-00355-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

None.

(c) Applicability

This AD applies to The Boeing Company Model 747-8 and -8F series airplanes, certificated in any category, as identified in Boeing Alert Requirements Bulletin 747-53A2907 RB, dated March 3, 2022.

(d) Subject

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by reports of cracking in stringers and splice fittings located at sringer splices at multiple body stations. The FAA is issuing this AD to address such cracking, which could result in the inability of a structural element to sustain limit load and could affect structural integrity of the airplane.

(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 747-53A2907 RB, dated March 3, 2022, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin 747-53A2907 RB, dated March 3, 2022.

Note 1 to paragraph (g): Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin 747-53A2907, dated March 3, 2022, which is referred to in Boeing Alert Requirements Bulletin 747-53A2907 RB, dated March 3, 2022.

(h) Exceptions to Service Information Specifications

(1) Where the Compliance Time columns of the tables in the "Compliance" paragraph of Boeing Alert Requirements Bulletin 747-53A2907 RB, dated March 3, 2022, use the phrase "the original issue date of Requirements Bulletin 747-53A2907 RB," this AD requires using "the effective date of this AD."

(2) Where Boeing Alert Requirements Bulletin 747-53A2907 RB, dated March 3, 2022, specifies contacting Boeing for repair instructions: This AD requires doing the repair using a method approved in accordance with the procedures specified in paragraph (i) of this AD.

(3) Where the Compliance Time columns of the tables in the "Compliance" paragraph of Boeing Alert Requirements Bulletin 747-53A2907 RB, dated March 3, 2022, use the phrase "Before 12,000 total flights cycles," this AD requires using "Before 12,000 total flight cycles, or within 8 years after the date of issuance of the original certificate of airworthiness or the original export certificate of airworthiness, whichever occurs first."

(4) Where the Compliance Time columns of the tables in the "Compliance" paragraph of Boeing Alert Requirements Bulletin 747-53A2907 RB, dated March 3, 2022, uses the phrase "Within 9,600 flight cycles after the last detailed inspection," this AD requires using "Within 9,600 flight cycles or 8 years after the last detailed inspection, whichever occurs first."

(5) Where the Compliance Time columns of the tables in the "Compliance" paragraph of Boeing Alert Requirements Bulletin 747-53A2907 RB, dated March 3,

2022, uses the phrase “Within 4,600 flight cycles after the last detailed inspection,” this AD requires using “Within 4,600 flight cycles or 8 years after the last detailed inspection, whichever occurs first.”

(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 paragraph (j) of this AD. 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, 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 Stefanie Roesli, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone: 206-231-3964; email: stefanie.n.roesli@faa.gov.

(k) 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 the AD specifies otherwise.

(i) Boeing Alert Requirements Bulletin 747-53A2907 RB, dated March 3, 2022.

(ii) [Reserved]

(3) For service information 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 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.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on March 17, 2023.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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