

Proposed Rules

Federal Register

Vol. 68, No. 42

Tuesday, March 4, 2003

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2001-NM-228-AD]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 747 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes the superseding of an existing airworthiness directive (AD), applicable to certain Boeing Model 747 series airplanes, that currently requires inspections to detect cracking of the front spar web of the wing, and corrective action, if necessary. This action would add one airplane to the applicability, change certain compliance times, add certain new requirements, and provide an optional modification. The actions specified by the proposed AD are intended to detect and correct fatigue cracking of the front spar web, which could result in fuel leaking onto an engine and a consequent fire. This action is intended to address the identified unsafe condition.

DATES: Comments must be received by April 18, 2003.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2001-NM-228-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227-1232. Comments may also be sent via the Internet using the following address: 9-anm-nprmcomment@faa.gov. Comments sent via fax or the Internet must contain "Docket No. 2001-NM-228-AD" in the

subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 for Windows or ASCII text.

The service information referenced in the proposed rule may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington.

FOR FURTHER INFORMATION CONTACT: Tamara Anderson, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6421; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this action may be changed in light of the comments received.

Submit comments using the following format:

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.
- For each issue, state what specific change to the proposed AD is being requested.
- Include justification (*e.g.*, reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments

submitted in response to this action must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2001-NM-228-AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2001-NM-228-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

Discussion

On December 14, 2000, the FAA issued AD 2000-25-12, amendment 39-12047 (65 FR 81331, December 26, 2000), applicable to certain Boeing Model 747 series airplanes, to require inspections to detect cracking of the front spar web of the wing, and corrective action, if necessary. That action was prompted by a report indicating that an operator found a 24-inch-long crack in the front spar web of the right wing. The requirements of that AD are intended to detect and correct fatigue cracking of the front spar web, which could result in fuel leaking onto an engine and a consequent fire.

Actions Since Issuance of Previous Rule

Since the issuance of AD 2000-25-12, an operator reported finding a crack in the front spar web during accomplishment of the modification specified in paragraph (b) of that AD on a Model 747 series airplane. The airplane had accumulated approximately 19,500 total flight cycles and 82,000 total flight hours. The crack was found outboard of the new web section at approximately front spar station inboard (FSSI) 694, common to the splice plate and upper chord. Cracking of the web in this area can result in fuel leakage into the struts, which could result in excess fuel drainage onto an engine and a consequent fire.

Additionally, it has been determined that the optional web inspections specified in paragraph (a) of the existing AD do not provide the crack detection necessary to support the compliance time for the repeat inspection intervals. Therefore, the optional web inspections have been removed from the requirements of this AD.

Related AD

On May 3, 1999, the FAA issued AD 99-10-09, amendment 39-11162 (64 FR 25194, May 11, 1999), applicable to certain Boeing Model 747-100, -200, and 747-SP series airplanes and military type E-4B airplanes. That AD requires repetitive inspections to detect cracking of the wing front spar web, and repair of cracked structure. That AD provides for optional terminating action (modification) for the repetitive inspection requirements. This proposed AD would require post-modification inspections of that modification, if accomplished.

Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Alert Service Bulletin 747-57A2311, Revision 1, including Appendices A and B, dated June 14, 2001; and Boeing Service Bulletin 747-57A2311, Revision 2, dated February 21, 2002; both including Evaluation Form. The service bulletins describe procedures for various repetitive inspections (detailed, ultrasonic, high frequency eddy current (HFEC)) of the front spar web between the fixed leading edge seal ribs at FSSI 628 through 711 inclusive, to find cracking of the front spar web of the wing, and corrective action, if necessary. The inspections include:

- For Group 1 through Group 8 airplanes on which the optional modification specified in AD 99-10-09, amendment 39-11162, has not been done, the affected area is divided into 2 zones. Part 1 of the service bulletin describes procedures for inspecting to find cracking of the front spar web between the seal rib at FSSI 628 and the rib post at FSSI 684 (Zone A); and between FSSI 684 and FSSI 711 inclusive (Zone B).

- For Group 1 through Group 8 airplanes on which the optional modification specified in AD 99-10-09, amendment 39-11162, has been done, the affected area is divided into 3 zones. Part 1 of the service bulletin describes procedures for inspecting to find cracking of the front spar web between the seal rib at FSSI 628 and the rib post at FSSI 668 (Zone A); between FSSI 693 and FSSI 711 inclusive (Zone B); and between FSSI 668 and FSSI 693 inclusive (Zone C).

- For Group 9 through Group 31 airplanes, the affected area is divided into two zones. Part 1 of the service bulletin describes procedures for inspecting to find cracking of the front spar web between the seal rib at FSSI 628 and the rib post at FSSI 684 (Zone

A); and between FSSI 684 and FSSI 711 inclusive (Zone B).

- For Group 1 through Group 8 airplanes, the inspections in this service bulletin do not replace the inspections required by AD 99-10-09.

The service bulletins also describe procedures for optional modification of the front spar web. The procedures include removing the existing fasteners and doing an open hole, rotating probe HFEC inspection of the holes for web cracks. If no cracks are found, the service bulletin describes procedures for oversizing the holes, and installing tension type fasteners. The service bulletin also describes procedures for an operational test after doing the modification. Accomplishment of the actions specified in the service bulletin is intended to adequately address the identified unsafe condition.

In addition, the service bulletin specifies that repair instructions for cracking should be obtained from the manufacturer.

Explanation of Requirements of Proposed Rule

Since an unsafe condition has been identified that is likely to exist or develop on other products of this same type design, the proposed AD would supersede AD 2000-25-12, to continue to require inspections to detect cracking of the front spar web of the wing, and corrective action, if necessary. This new action would add one airplane to the applicability, change certain compliance times, add certain new requirements, and provide an optional modification. The actions would be required to be accomplished in accordance with the service bulletin described previously, except as discussed below.

Differences Between Service Information and This Proposed AD

The service bulletin specifies that the manufacturer may be contacted for disposition of certain repair conditions, but this proposed AD would require the repair of those conditions to be accomplished in accordance with a method approved by the FAA, or in accordance with data meeting the type certification basis of the airplane approved by a Boeing Company Designated Engineering Representative who has been authorized by the FAA to make such findings.

Cost Impact

There are approximately 479 Model 747 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 97 airplanes of U.S. registry would be affected by this proposed AD.

The external inspections that are required by AD 2000-25-12 take approximately 48 work hours per airplane (not including access and close-up), at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the external inspections is estimated to be \$2,880 per airplane, per inspection cycle.

The new inspections that are proposed in this AD action would take approximately 74 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the new inspections is estimated to be \$4,440 per airplane, per inspection cycle.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the current or proposed requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Should an operator elect to accomplish the optional modification that would be provided by this AD action, it would take approximately 40 work hours to accomplish, at an average labor rate of \$60 per work hour. The cost of required parts would be between \$8,606 and \$28,036 per airplane. Based on these figures, the cost impact of the optional modification would be between \$11,006 and \$30,436 per airplane.

Regulatory Impact

The regulations proposed herein 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. Therefore, it is determined that this proposal would not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this proposed regulation (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, 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. A copy of the draft

regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption **ADDRESSES**.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend part 39 of the Federal Aviation Regulations (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. Section 39.13 is amended by removing amendment 39–12047 (65 FR 81331, December 26, 2000), and by adding a new airworthiness directive (AD), to read as follows:

Boeing: Docket 2001–NM–228–AD.

Supersedes AD 2000–25–12, Amendment 39–12047.

Applicability: Model 747 series airplanes, as listed in Boeing Service Bulletin 747–57A2311, Revision 2, dated February 21, 2002; certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (h)(1) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To detect and correct fatigue cracking of the front spar web of the wing, which could result in fuel leaking onto an engine and a consequent fire, accomplish the following:

Restatement of Certain Requirements of AD 2000–25–12

Repetitive Inspections

(a) Excluding Group 31 airplanes, as specified in Boeing Service Bulletin 747–57A2311, Revision 2, dated February 21, 2002: At the later of the times specified in paragraphs (a)(1) and (a)(2) of this AD, except as provided by paragraph (b) of this AD,

perform the Part 1 external web inspection—including detailed, ultrasonic, and high frequency eddy current (HFEC) inspections—to detect cracking of the front spar web of the wing, in accordance with Boeing Alert Service Bulletin 747–57A2311, dated January 27, 2000. Repeat the inspections thereafter at intervals not to exceed 2,000 flight cycles until accomplishment of the inspections required by paragraph (e) of this AD. Accomplishment of an optional inspection of the front spar web per AD 2000–25–12, amendment 39–12047, is considered acceptable for compliance with the applicable inspection requirement in this paragraph.

Note 2: For the purposes of this AD, a detailed inspection is defined as: “An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirrors, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required.”

(1) Prior to the accumulation of 13,000 total flight cycles or 30,000 total flight hours, whichever occurs first.

(2) Within 18 months after January 30, 2001 (the effective date of this AD 2000–25–12, amendment 39–12047).

Exception for Modified Airplanes

(b) Except as provided by paragraph (g) of this AD, for airplanes on which the front spar web between front spar station inboard (FSSI) 668 and FSSI 692 has been replaced before the effective date of this AD with a shot-peened front spar web, in accordance with AD 99–10–09, amendment 39–11162: Within 13,000 flight cycles or 30,000 flight hours after the replacement, whichever occurs first, inspect the new section of the front spar web that overlaps with the inspection area specified in Boeing Alert Service Bulletin 747–57A2311 (the area between FSSI 668 and FSSI 684), dated January 27, 2000. Repeat the inspections thereafter, in accordance with paragraph (a) of this AD.

Repair

(c) If any cracking is detected during any inspection required by this AD, prior to further flight, repair in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA; or in accordance with data meeting the type certification basis of the airplane approved by a Boeing Company Designated Engineering Representative who has been authorized by the Manager, Seattle ACO, to make such findings. For a repair method to be approved by the Manager, Seattle ACO, as required by this paragraph, the approval letter must specifically reference this AD.

New Requirements of This AD

Compliance Times

(d) Where the compliance time inspection threshold is based on “after the date of this service bulletin,” in Boeing Alert Service Bulletin 747–57A2311, Revision 1, including

Appendices A and B, dated June 14, 2001; or Boeing Service Bulletin 747–57A2311, Revision 2, dated February 21, 2002; both excluding Evaluation Form: This AD requires compliance within the inspection interval specified in the service bulletin “after the effective date of this AD.”

Repetitive Inspections

(e) Except as provided by paragraph (g) of this AD: Do detailed, ultrasonic, and high frequency eddy current (HFEC) inspections, as applicable, to find cracking of the front spar web of the wing, in accordance with Part 1 of the Accomplishment Instructions of Boeing Alert Service Bulletin 747–57A2311, Revision 1, including Appendices A and B, dated June 14, 2001; or Boeing Service Bulletin 747–57A2311, Revision 2, dated February 21, 2002; both excluding Evaluation Form. Do the inspections at the applicable initial inspection threshold times specified in Figure 1, Tables 1 through 8 inclusive, of the service bulletin. Repeat the applicable inspection thereafter at the applicable repeat inspection interval specified in Figure 1, Tables 1 through 8 inclusive, of the service bulletin. Accomplishment of the inspections required by this paragraph terminates the repetitive inspections required by paragraph (a) of this AD.

Optional Modification

(f) Accomplishment of the optional modification of the front spar web of the wing (includes removing the existing fasteners and doing an open hole, rotating probe HFEC inspection of the holes for web cracks, and if no cracks are found, oversizing the holes, and installing tension type fasteners), in accordance with Part 2 of the Accomplishment Instructions of Boeing Alert Service Bulletin 747–57A2311, Revision 1, including Appendices A and B, dated June 14, 2001; or Boeing Service Bulletin, Revision 2, dated February 21, 2002; both excluding Evaluation Form; terminates the repetitive inspections required by paragraph (e) of this AD.

Post-Modification Inspections

(g) For airplanes on which the actions specified in paragraph (b) or (f) of this AD have been done before the effective date of this AD: In lieu of the inspections required by paragraph (b) or (e) of this AD, as applicable, do the applicable post-modification inspection specified in Part 1 of the Accomplishment Instructions of Boeing Alert Service Bulletin 747–57A2311, Revision 1, including Appendices A and B, dated June 14, 2001; or Boeing Service Bulletin 747–57A2311, Revision 2, dated February 21, 2002; both excluding Evaluation Form; at the post-modification inspection threshold times specified in Figure 1, Tables 1 through 8 inclusive, of the service bulletin. Repeat the applicable inspection thereafter at the applicable post-modification repeat inspection interval specified in Figure 1, Tables 1 through 8 inclusive, of the service bulletin.

Alternative Methods of Compliance

(h)(1) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be

used if approved by the Manager, Seattle ACO. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

(2) Alternative methods of compliance, approved previously in accordance with AD 2000-25-12, amendment 39-12047, are approved as alternative methods of compliance with paragraph (c) of this AD.

Note 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(i) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Issued in Renton, Washington, on February 24, 2003.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 03-4851 Filed 3-3-03; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-NM-219-AD]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737-100, -200, -200C, -300, -400, and -500 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes the superseding of an existing airworthiness directive (AD), applicable to all Boeing Model 737-100, -200, -200C, -300, -400, and -500 series airplanes, that currently requires repetitive inspections to find cracks, fractures, or corrosion of each carriage spindle of the left and right outboard mid-flaps; and corrective action, if necessary. This action would mandate the previously optional overhaul or replacement of the carriage spindles, which would end the repetitive inspections required by the existing AD. The actions specified by the proposed AD are intended to prevent severe flap asymmetry due to fractures of the carriage spindles on an outboard mid-flap, which could result in reduced control or loss of controllability of the airplane. This

action is intended to address the identified unsafe condition.

DATES: Comments must be received by April 18, 2003.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2002-NM-219-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227-1232. Comments may also be sent via the Internet using the following address: 9-anm-nprmcomment@faa.gov. Comments sent via fax or the Internet must contain "Docket No. 2002-NM-219-AD" in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 for Windows or ASCII text.

The service information referenced in the proposed rule may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington.

FOR FURTHER INFORMATION CONTACT: Sue Lucier, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6438; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this action may be changed in light of the comments received.

Submit comments using the following format:

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.
- For each issue, state what specific change to the proposed AD is being requested.

- Include justification (e.g., reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this action must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2002-NM-219-AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2002-NM-219-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

Discussion

On October 22, 2002, the FAA issued AD 2002-22-05, amendment 39-12929 (67 FR 66316, October 31, 2002), applicable to all Boeing Model 737-100, -200, -200C, -300, -400, and -500 series airplanes, to require repetitive inspections to find cracks, fractures, or corrosion of each carriage spindle of the left and right outboard mid-flaps; and corrective action, if necessary. That action also provides for an optional action of overhaul or replacement of the carriage spindles, which would extend the repetitive inspection interval. The requirements of that AD are intended to prevent severe flap asymmetry due to fractures of the carriage spindles on an outboard mid-flap, which could result in reduced control or loss of controllability of the airplane.

Actions Since Issuance of Previous Rule

In the preamble to AD 2002-22-05, we specified that the actions required by that AD were considered "interim action" and that we were considering requiring the optional overhaul or replacement of the carriage spindles. We have now determined that it is necessary to require the overhaul or replacement of the carriage spindles, and this proposed AD follows from that determination.