

# Proposed Rules

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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. 98-NM-148-AD]

RIN 2120-AA64

#### Airworthiness Directives; Boeing Model 737 Series Airplanes

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** This document proposes the adoption of a new airworthiness directive (AD) that is applicable to certain Boeing Model 737 series airplanes. This proposal would require repetitive ultrasonic inspections to detect broken bolts that attach the terminal support fittings to the upper part of the Body Station 1088 bulkhead, and corrective actions, if necessary. This proposal also would require eventual replacement of the existing bolts with new, improved bolts, which, when accomplished, would terminate the requirements of the AD. This proposal is prompted by reports that bolts that attach the terminal support fittings to the upper part of the bulkhead were found broken. The actions specified by the proposed AD are intended to prevent such broken bolts, which could result in reduced structural integrity of the vertical fin installation and possible loss of the vertical fin.

**DATES:** Comments must be received by August 31, 1998.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 98-NM-148-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9:00 a.m. and 3:00 p.m., Monday through Friday, except Federal holidays.

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:** Rick Kawaguchi, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-1153; fax (425) 227-1181.

#### 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 notice may be changed in light of the comments received.

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 notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 98-NM-148-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. 98-NM-148-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

## Discussion

The FAA has received reports indicating that broken bolts were found in the terminal support fittings that attach the aft spar of the vertical fin to the upper part of the bulkhead at Body Station 1088 on Boeing Model 737 series airplanes. The broken bolts were made of H-11 steel alloy. Bolts made of such material are susceptible to stress corrosion cracking. Such broken bolts, if not corrected, could result in reduced structural integrity of the vertical fin installation, and multiple broken bolts could result in loss of the vertical fin.

#### Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Service Bulletin 737-53-1107, Revision 3, dated August 26, 1993; as revised by Notices of Status Change 737-53-1107 NSC 3, dated June 9, 1994, and 737-53-1107 NSC 4, dated September 22, 1994; and Boeing Service Bulletin 737-53-1107, Revision 4, dated February 8, 1996. These service bulletins describe procedures for repetitive ultrasonic inspections to detect broken bolts that attach the terminal support fittings to the upper part of the Body Station 1088 bulkhead, and replacement of the existing bolts with new, improved bolts. The replacement includes removing the bolts, performing an eddy current inspection to detect cracking or corrosion of the bolt holes, oversizing the bolt holes, and installing new Inconel bolts. Installation of the new Inconel bolts would eliminate the need for the repetitive inspections described previously. Accomplishment of the actions specified in the service bulletins is intended to adequately address the identified unsafe condition.

#### 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 require accomplishment of the actions specified in the service bulletins and notices of status change described previously, except as discussed below.

#### Differences Between Proposed Rule and Service Bulletin

Operators should note that, although the service bulletins specify that the

manufacturer may be contacted for disposition of certain repair conditions, this proposal would require the repair of those conditions to be accomplished in accordance with a method approved by the FAA.

### Cost Impact

There are approximately 1,485 airplanes of the affected design in the worldwide fleet. The FAA estimates that 630 airplanes of U.S. registry would be affected by this proposed AD.

It would take approximately 3 work hours per airplane to accomplish the proposed inspection, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the inspection proposed by this AD on U.S. operators is estimated to be \$113,400, or \$180 per airplane, per inspection cycle.

It would take approximately 9 work hours per airplane to accomplish the proposed replacement, at an average labor rate of \$60 per work hour. Required parts would cost approximately \$471 per airplane. Based on these figures, the cost impact of the replacement proposed by this AD on U.S. operators is estimated to be \$636,930, or \$1,011 per airplane.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the proposed requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted.

### Regulatory Impact

The regulations proposed herein would not have substantial direct effects 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, in accordance with Executive Order 12612, it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

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 adding the following new airworthiness directive:

**Boeing:** Docket 98-NM-148-AD.

**Applicability:** Model 737 series airplanes, line numbers 1 through 1485 inclusive, certificated in any category.

**Note 1:** This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been 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 (c) 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 prevent broken bolts that attach the terminal support fittings to the upper part of the Body Station (BS) 1088 bulkhead, which could result in reduced structural integrity of the vertical fin installation and possible loss of the vertical fin, accomplish the following:

(a) Within 18 months after the effective date of this AD, perform an ultrasonic inspection to detect broken bolts that attach the terminal support fittings to the upper part of the BS 1088 bulkhead, in accordance with Boeing Service Bulletin 737-53-1107, Revision 3, dated August 26, 1993; as revised by Notice of Status Change 737-53-1107 NSC 3, dated June 9, 1994, and Notice of Status Change 737-53-1107 NSC 4, dated September 22, 1994; or Boeing Service Bulletin 737-53-1107, Revision 4, dated February 8, 1996.

(1) If no broken bolt is found, repeat the ultrasonic inspection thereafter at intervals not to exceed 18 months.

(2) If any broken bolt is found, prior to further flight, perform the actions specified in paragraph (b) of this AD.

(b) Prior to the accumulation of 20 years since date of manufacture of the airplane, or within 18 months after the effective date of this AD, whichever occurs later, remove all 16 H-11 steel alloy bolts that attach the terminal support fittings to the upper part of the bulkhead, and perform an eddy current inspection to detect cracking or corrosion of the bolt holes, in accordance with Figure 2 of Boeing Service Bulletin 737-53-1107, Revision 3, dated August 26, 1993; as revised by Notice of Status Change 737-53-1107 NSC 3, dated June 9, 1994, and Notice of Status Change 737-53-1107 NSC 4, dated September 22, 1994; or Boeing Service Bulletin 737-53-1107, Revision 4, dated February 8, 1996.

(1) If no cracking or corrosion is found, prior to further flight, oversize all 16 bolt holes and install new Inconel bolts, in accordance with Figure 2 of the service bulletin. Accomplishment of this installation constitutes terminating action for the repetitive inspection requirements of this AD.

(2) If any corrosion is found, prior to further flight, oversize the bolt hole within the limits specified in Figure 2, Step 4, of the service bulletin, and install a new Inconel bolt, in accordance with Figure 2 of the service bulletin. Accomplishment of the installation for all 16 bolt holes constitutes terminating action for the repetitive inspection requirements of this AD. If corrosion does not clean up within the limits specified in Figure 2, Step 4, of the service bulletin, prior to further flight, repair in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate.

(3) If any cracking is found, prior to further flight, oversize the bolt hole within the limits specified in Figure 2, Step 5, of the service bulletin, and perform another eddy current inspection to ensure cracks have been removed, in accordance with Figure 2 of the service bulletin.

(i) If, after oversizing, no cracking is found, prior to further flight, oversize the bolt hole again, and install a new Inconel bolt, in accordance with Figure 2 of the service bulletin. Accomplishment of the installation for all 16 bolt holes constitutes terminating action for the repetitive inspection requirements of this AD.

(ii) If, after oversizing, any cracking is found, prior to further flight, repair in accordance with a method approved by the Manager, Seattle ACO.

**Note 2:** Replacement of all H-11 steel alloy bolts accomplished prior to the effective date of this AD, in accordance with Boeing Service Bulletin 737-53-1107, dated October 15, 1987; Revision 1, dated June 22, 1989; or Revision 2, dated September 10, 1992; is considered acceptable for compliance with the applicable actions specified in paragraph (b) of this AD.

(c) 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.

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

(d) 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 July 8, 1998.

**S.R. Miller,**

*Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.*

[FR Doc. 98-18779 Filed 7-14-98; 8:45 am]

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## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. 97-NM-296-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 adoption of a new airworthiness directive (AD) that is applicable to certain Boeing Model 747 series airplanes. This proposal would require repetitive inspections to detect cracks in the edge frame web and doubler of the number 1 main entry door cutout; and repair, if necessary. This proposed AD also provides for optional terminating action for the repetitive inspections. This proposal is prompted by reports indicating that fatigue cracks were found in the edge frame web and doubler at the door stop number 1 of the number 1 main entry door cutout. The actions specified by the proposed AD are intended to detect and correct such fatigue cracking, which could result in rapid decompression of the airplane.

**DATES:** Comments must be received by August 31, 1998.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 97-NM-296-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9:00 a.m. and 3:00 p.m., Monday through Friday, except Federal holidays.

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:** Bob Breneman, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2776; fax (425) 227-1181.

#### 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 notice may be changed in light of the comments received.

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 notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 97-NM-296-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. 97-NM-296-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

##### Discussion

The FAA has received reports indicating that, while replacing the inner chord of the frame on Boeing Model 747 series airplanes, cracks were found in the edge frame web and

doubler of the number 1 main entry door cutout at station 488, between stringers 25 and 26 (door stop number 1). The edge frame web in each incident was almost completely severed. These airplanes had accumulated as few as 18,502 total flight cycles. In addition, the FAA has received a report indicating that, during fatigue testing on a Boeing Model 747SR test article, cracking occurred in the edge frame web at 27,500 total pressure cycles and in the inner chord at 30,750 total pressure cycles. The cause of such cracking in all incidents has been attributed to fatigue. This condition, if not detected and corrected, could result in rapid decompression of the airplane.

##### Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Alert Service Bulletin 747-53A2414, dated August 7, 1997. This alert service bulletin describes procedures for repetitive high frequency eddy current (HFEC) inspections to detect cracks in both the aft side of the edge frame web along the lower edge of the backup structure attachment at the stop fitting number 1, and the forward side of the doubler at the lower edge of door stop number 1 of the number 1 main entry door cutout; and repair, if necessary.

The alert service bulletin specifies that operators of Group 1 airplanes are to perform those inspections of the subject areas on both the left and right sides of the airplane; whereas, operators of Group 2 airplanes are to perform those inspections of the subject areas on the left side only of the airplane. Group 1 airplanes are those Model 747 series airplanes that have a number 1 main entry door on both the left and right sides of the airplane. Group 2 airplanes are those Model 747 series airplanes that only have a number 1 main entry door on the left side of the airplane.

This alert service bulletin also describes procedures for a preventative modification of the edge frame web and doubler, which involves trimming the lower portion of the subject web; removing the trimmed web and the doubler; and installing a new web, doubler, and splice plate. For airplanes on which the inner chord of the edge frame is not being replaced concurrently with the repair specified in the alert service bulletin, the procedures also include an open hole HFEC inspection of the inner chord of the edge frame. Accomplishment of the preventative modification would eliminate the need for the repetitive inspections. Accomplishment of the actions specified in the alert service bulletin is