

Proposed Rules

Federal Register

Vol. 66, No. 15

Tuesday, January 23, 2001

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. 2000-NM-250-AD]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 747-100, -200, -300, and 747SP 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 747-100, -200, -300, and 747SP series airplanes. This proposal would require certain inspections to find missing and alloy-steel taperlock fasteners (bolts) in the diagonal brace underwing fittings; and corrective actions, if necessary. For airplanes with missing or alloy-steel fasteners, this proposal also would mandate replacement of certain fasteners with new fasteners, which would constitute terminating action for the repetitive inspections. This action is necessary to prevent loss of the underwing fitting load path due to missing or damaged alloy-steel taperlock fasteners, which could result in separation of the engine and strut from the airplane. This action is intended to address the identified unsafe condition.

DATES: Comments must be received by March 9, 2001.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2000-NM-250-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. 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. 2000-NM-250-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 L. Anderson, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2771; 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 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 2000-NM-250-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. 2000-NM-250-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

Discussion

The FAA has received a report indicating that broken taperlock fasteners (bolts) were found on the diagonal brace underwing fittings on the outboard strut at the Number 1 and Number 4 engine pylons on a Boeing Model 747-200 series airplane having titanium underwing fittings. According to the manufacturer's drawings, Model 747-200 series airplanes with titanium underwing fittings should only have taperlock fasteners made of A286 corrosion-resistant steel installed on the fitting, but investigation has revealed that certain airplanes may have taperlock fasteners made from alloy-steel installed. In the case mentioned above, both alloy-steel and A286 fasteners were found broken. Alloy-steel fasteners are known to be susceptible to corrosion and subsequent stress corrosion cracking. The cause of the broken A286 fasteners has been attributed to fatigue cracking due to certain alloy-steel fasteners on the same fitting cracking and increasing the load on the A286 fasteners. Such conditions, if not corrected, could result in loss of the underwing fitting load path and separation of the engine and strut from the airplane.

The subject alloy-steel taperlock fasteners on Boeing Model 747-200 series airplanes may also be on certain Boeing Model 747-100, -300, and SP series airplanes. Therefore, all of these airplanes are subject to the same unsafe condition.

Related Rulemaking

This proposed AD is related to AD 2000-03-22, amendment 39-11582 (65 FR 8640, February 22, 2000), which is applicable to certain Boeing Model 747-100, -200, and 747SP series airplanes having aluminum underwing fittings. These airplanes were delivered with taperlock bolts of alloy-steel installed in the underwing fittings. That AD requires repetitive detailed visual and ultrasonic inspections to detect missing, damaged, or broken taperlock bolts in the diagonal brace underwing fittings; and corrective actions, if necessary. That AD also requires eventual replacement of the aft 10 taperlock bolts with new fasteners, which constitutes terminating action for the repetitive inspections. This NPRM proposes similar actions for Boeing Model 747-100, -200, -300, and 747SP series airplanes having alloy-steel taperlock fasteners in titanium underwing fittings.

Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Alert Service Bulletin 747-57A2312, dated June 15, 2000, which describes procedures for a one-time detailed visual inspection to find missing taperlock fasteners and a one-time magnetic inspection to find alloy-steel taperlock fasteners. For airplanes on which alloy-steel or missing taperlock fasteners are found, the service bulletin describes procedures for repetitive ultrasonic inspections to find damaged (cracked or broken) alloy taperlock fasteners, and follow-on actions, if necessary, including ultrasonic inspection to find damaged non-alloy taperlock fasteners, and replacement of damaged fasteners with new fasteners. Replacement of fasteners involves performing an open-hole high frequency eddy current (HFEC) inspection to detect cracks at the bolt hole locations, and replacing damaged and missing taperlock fasteners with new fasteners. Such replacement terminates the repetitive inspections described previously. Accomplishment of the actions specified in the service bulletin 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 bulletin described previously, except as discussed below.

Differences Between Proposed AD and Service Bulletin

Incorporation of the terminating action stated in the referenced service bulletin is optional, but this AD proposes to mandate, within 48 months after the effective date of this AD, the open-hole inspection and replacement of certain fasteners with new fasteners stated in the referenced service bulletin as terminating action for the repetitive inspections. The FAA has determined that long-term continued operational safety will be better assured by design changes to remove the source of the problem, rather than by repetitive inspections. Long-term inspections may not be providing the degree of safety assurance necessary for the transport airplane fleet. This, together with a better understanding of the human factors associated with numerous continued inspections, has led the FAA to consider placing less emphasis on inspections and more emphasis on design improvements. The proposed replacement requirement is in consonance with these conditions.

In addition, the service bulletin specifies that the manufacturer must be contacted for repair of certain conditions, but this proposal would require the repair of those conditions to be accomplished per a method approved by the FAA; or per 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. For a method to be approved, the approval letter must specifically reference this AD.

Cost Impact

There are approximately 363 airplanes of the affected design in the worldwide fleet. The FAA estimates that 60 airplanes of U.S. registry would be affected by this proposed AD.

It would take approximately 2 work hours per airplane to accomplish the proposed visual and magnetic inspections, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the proposed inspections on U.S. operators is estimated to be \$7,200, or \$120 per airplane.

The cost impact figure discussed above is 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 proposed 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.

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 adding the following new airworthiness directive:

Boeing: Docket 2000-NM-250-AD.

Applicability: Model 747-100, -200, -300, and 747SP series airplanes, equipped with titanium diagonal brace underwing fittings; as listed in Boeing Alert Service Bulletin 747-57A2312, dated June 15, 2000; 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 (e) 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 loss of the underwing fitting load path due to missing or damaged taperlock fasteners, which could result in separation of the engine and strut from the airplane, accomplish the following:

Repetitive Inspections

(a) Within 12 months after the effective date of this AD: Do a one-time detailed visual inspection of the diagonal brace underwing fitting at the Number 1 and Number 4 engine pylons to find missing taperlock fasteners (bolts), and a magnetic inspection to find alloy-steel fasteners per Part 1 of the Accomplishment Instructions of Boeing Alert Service Bulletin 747-57A2312, dated June 15, 2000.

Note 2: For the purposes of this AD, a detailed visual 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 mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

(1) If no alloy-steel fasteners are found and no fasteners are missing, no further action is required by this AD.

(2) If any alloy-steel fasteners are found or any fasteners are missing, before further flight, do an ultrasonic inspection of the alloy-steel fasteners to find damage per Part 2 of the Accomplishment Instructions of the service bulletin.

(i) If no damaged alloy-steel fasteners are found, and no fasteners are missing: Repeat the ultrasonic inspection thereafter at intervals not to exceed 18 months until accomplishment of the terminating action required by paragraph (b) of this AD.

(ii) If any damaged alloy-steel fasteners are found, or any fasteners are missing: Before further flight, do an ultrasonic inspection of all 10 aft fasteners (including non-alloy steel) per Part 2 of the Accomplishment Instructions of the service bulletin. Before further flight, replace damaged and missing fasteners with new fasteners per Part 3 of the Accomplishment Instructions of the service bulletin, except as provided by paragraph (c) of this AD. Thereafter, repeat the inspection of the remaining alloy-steel fasteners at intervals not to exceed 18 months until accomplishment of the terminating action required by paragraph (b) of this AD.

Terminating Action

(b) Within 48 months after the effective date of this AD: Do the actions required by paragraphs (b)(1) and (b)(2), or (b)(3) of this AD, per Boeing Alert Service Bulletin 747-57A2312, dated June 15, 2000.

Accomplishment of the actions specified in this paragraph constitutes terminating action for the repetitive inspection requirements of this AD.

(1) Perform an open-hole high frequency eddy current (HFEC) inspection to detect cracks at the bolt hole locations of the aft 10 taperlock fasteners in the diagonal brace underwing fitting at the Number 1 and Number 4 engine pylons per Part 3 of the Accomplishment Instructions of the service bulletin. If any cracking is detected, before further flight, perform applicable corrective actions per the service bulletin, except as provided by paragraph (c) of this AD.

(2) Before further flight: Replace all 10 aft taperlock fasteners with new, improved fasteners per Part 3 of the Accomplishment Instructions of the service bulletin.

(3) Do an ultrasonic inspection to find damaged fasteners per Part 2 of the Accomplishment Instructions of the service bulletin. Before further flight, replace all damaged non-alloy steel and all alloy-steel fasteners with new fasteners per Part 3 of the Accomplishment Instructions of the service bulletin. Do an open-hole HFEC inspection before installation of the new fasteners, if any cracking is found, before further flight, perform applicable corrective actions per the service bulletin, except as provided by paragraph (c) of this AD.

Corrective Actions

(c) If any cracking of the bolt hole that exceeds the limits specified in the service bulletin is found, or if any non-alloy steel bolt is found to be damaged, during any inspection required by this AD, and the bulletin specifies to contact Boeing for appropriate action: Before further flight, repair per a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA; or per 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 Manager's approval letter must specifically reference this AD.

Spares

(d) As of the effective date of this AD, no person shall install on any airplane, a fastener, part number BACB30PE() * (); or any other fastener made of 4340, 8740, PH13-8 Mo or H-11 steel, in the locations specified in this AD.

Alternative Methods of Compliance

(e) 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.

Special Flight Permit

(f) Special flight permits may be issued in accordance with §§ 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 January 16, 2001.

Donald L. Riggins,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 01-1890 Filed 1-22-01; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Airspace Docket No. 00-ANM-12]

Proposed establishment of Class E airspace, Heber City, UT

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This action proposes to establish Class E airspace at Heber City, UT. A new Area Navigation (RNAV) Standard Instrument Approach Procedure (SIAP) to Heber City Muni-Russ McDonald Field has made this proposal necessary. Additional Class E 700 feet, and 1,200 feet controlled airspace, above the surface of the earth is required to contain aircraft executing the RNAV-A-SIAP to Heber City Muni-Russ McDonald Field. The intended effect of this proposal is to provide adequate controlled airspace for Instrument Flight Rules (IFR) operations at Heber City Muni-Russ McDonald Field, Heber City, UT.

DATES: Comments must be received on or before March 9, 2001.

ADDRESSES: Send comments on the proposal in triplicate to: Manager, Airspace Branch, ANM-520, Federal Aviation Administration, Docket No. 00-ANM-12, 1601 Lind Avenue SW, Renton, Washington 98055-4056.

An informal docket may also be examined during normal business hours in the office of the Manager, Air Traffic Division, Airspace Branch, at the address listed above.

FOR FURTHER INFORMATION CONTACT: Brian Durham, ANM-520.7, Federal