

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Part 39**

[Docket No. 99-NM-114-AD]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 747-400 and 767 Series Airplanes Powered by Pratt & Whitney PW4000 Series Engines

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 747-400 and 767 series airplanes. This proposal would require replacement of the existing deactivation pin, pin bushing, and insert flange on each thrust reverser half, with new, improved components. This proposal is prompted by reports of partial deployment of deactivated thrust reversers during landing. The actions specified by the proposed AD are intended to prevent failure of the thrust reverser deactivation pins, which could result in deployment of the thrust reverser in flight and consequent reduced controllability of the airplane.

DATES: Comments must be received by November 1, 1999.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 99-NM-114-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: Dorr Anderson, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2684; 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 99-NM-114-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. 99-NM-114-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

Discussion

The FAA has received reports of partial deployments of deactivated thrust reversers during landing on Boeing Model 767 series airplanes powered by Pratt & Whitney PW4000 series engines. Subsequent investigation revealed that, in each event, the thrust reverser had been improperly deactivated. This allowed hydraulic pressure to be available to the actuators when the reverse thrust levers were activated on landing. The pin insert for the deactivation pin was not able to withstand the load of a powered deployment and failed. The deactivation pin, as well as the pin insert flange, are subject to adverse tolerance stack-up, which minimizes their load carrying capability, and the pin and insert flanges may not prevent a deactivated thrust reverser sleeve from moving during a powered deployment. This

condition, if not corrected, could result in deployment of the thrust reverser in flight and consequent reduced controllability of the airplane. The deactivation pins, pin bushings, and insert flanges on Model 747-400 series airplanes powered by Pratt & Whitney PW4000 series engines are the same as those on the affected Model 767 series airplanes. Therefore, those Model 747-400 series airplanes may be subject to the same unsafe condition.

Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Service Bulletin 747-78A2165, Revision 1, dated May 13, 1999, which describes procedures for replacement of the existing deactivation pin, pin bushing, and insert flange on each thrust reverser half, with new, improved components, on Model 747-400 series airplanes powered by Pratt & Whitney PW4000 series engines. The FAA has also reviewed and approved Boeing Alert Service Bulletin 767-78A0080, dated February 25, 1999, which describes procedures for replacement of the existing deactivation pin, pin bushing, and insert flange on each thrust reverser half, with new, improved components, on Model 767 series airplanes powered by Pratt & Whitney PW4000 series engines. 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 described previously, except as described below.

Differences Between The Proposed AD and the Service Bulletins

Boeing Service Bulletin 747-78A2165, Revision 1, and Boeing Alert Service Bulletin 767-78A0080 recommend incorporation of the specified actions on airplanes with the additional thrust reverser locks at the earliest opportunity where facilities and manpower are available. For airplanes without additional thrust reverser locks, the service bulletins recommend incorporation at the earliest opportunity where facilities and manpower are available but no later than 24 months. In developing an appropriate compliance time for this AD, the FAA considered not only the manufacturer's

recommendation, but the degree of urgency associated with addressing the subject unsafe condition, the average utilization of the affected fleet, and the time necessary to perform the replacement. In light of all of these factors, the FAA finds a 24-month compliance time for accomplishing the required actions on all affected airplanes to be warranted, in that it represents an appropriate interval of time allowable for affected airplanes to continue to operate without compromising safety.

Cost Impact

There are approximately 201 airplanes of the affected design in the worldwide fleet. The FAA estimates that 39 Model 747-400 series airplanes and 54 Model 767 series airplanes of U.S. registry would be affected by this proposed AD. It would take approximately 6 work hours per engine to accomplish the proposed replacement, at an average labor rate of \$60 per work hour. Required parts would cost approximately \$3,956 per engine. Based on these figures, the cost impact of the proposed AD on U.S. operators of Model 747-400 series airplanes (4 engines per airplane) is estimated to be \$673,296, or \$17,264 per airplane. The cost impact of the proposed AD on U.S. operators of Model 767 series airplanes (2 engines per airplane) is estimated to be \$466,128, or \$8,632 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 99-NM-114-AD.

Applicability: Model 747-400 series airplanes powered by Pratt & Whitney PW4000 series engines, as listed in Boeing Service Bulletin 747-78A2165, Revision 1, dated May 13, 1999; and Model 767 series airplanes powered by Pratt & Whitney PW4000 series engines, as listed in Boeing Alert Service Bulletin 767-78A0080, dated February 25, 1999; 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 (b) 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 failure of the thrust reverser deactivation pins, which could result in deployment of the thrust reverser in flight and consequent reduced controllability of the airplane, accomplish the following:

Replacement

(a) Within 24 months after the effective date of this AD, replace the existing deactivation pin, pin bushing in the aft cascade mounting ring, and insert flange on

each thrust reverser half, with new, improved components, in accordance with Boeing Service Bulletin 747-78A2165, Revision 1, dated May 13, 1999 (for Model 747-400 series airplanes); or Boeing Alert Service Bulletin 767-78A0080, dated February 25, 1999 (for Model 767 series airplanes); as applicable.

Note 2: The new, improved insert flange and pin bushing does not preclude use of a deactivation pin having P/N 315T1604-2 or -5. However, use of deactivation pins having P/N 315T1604-2 or -5 may not prevent the thrust reversers from deploying in event of a full powered deployment. Therefore, thrust reversers modified per this AD require installation of the new, longer deactivation pins having P/N 315T1604-6, as specified in the applicable service bulletin.

Note 3: Replacements accomplished prior to the effective date of this AD in accordance with Boeing Alert Service Bulletin 747-78A2165, dated February 25, 1999, are considered acceptable for compliance with the applicable action specified in this amendment.

Alternative Methods of Compliance

(b) 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 Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. 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 4: 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

(c) 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 September 9, 1999.

Dorenda D. Baker,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.
[FR Doc. 99-24091 Filed 9-14-99; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 99-NM-31-AD]

RIN 2120-AA64

Airworthiness Directives; British Aerospace Model BAC 1-11 200 and 400 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.