

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. 97-NM-89-AD]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 747-400 Series Airplanes Powered by Pratt and Whitney PW4000 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 series airplanes. This proposal would require repetitive inspections to detect improper installation and fatigue damage of the end cap of the forward engine mount, and replacement of the forward engine mount end cap assembly with an improved end cap assembly. Such replacement, when accomplished, would terminate the repetitive inspections. This proposal is prompted by a report of fatigue cracking of end cap bolts, caused by improper installation. Subsequent investigation revealed that properly installed end caps also are subject to early fatigue cracking. The actions specified by the proposed AD are intended to prevent failure of the end cap assembly, which could lead to separation of the engine from the airplane in the event of a primary thrust linkage failure.

DATES: Comments must be received by July 6, 1998.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 97-NM-89-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: Tamara L. Anderson, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2771; 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 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-89-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-89-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

Discussion

The FAA has received a report of broken end cap bolts of the forward engine mount, which were found during overhaul of a Pratt & Whitney PW4000 engine that had been installed on a Boeing Model 747-400 series airplane. Investigation revealed that the end cap had been installed backwards. A properly installed end cap does not normally react any significant engine thrust loads; it is intended to provide a secondary load path if the primary thrust linkage fails. An end cap installed backwards will react the engine thrust loads along with the primary thrust linkage, which will result in premature fatigue failure of the end cap or end cap bolts. In addition, fatigue analysis and testing have confirmed that a properly installed end cap assembly would fail in a low number of flight cycles after a primary thrust linkage failure. Failure of the end cap assembly, if not corrected, could lead to separation of the engine from the airplane in the event of primary thrust linkage failure.

Other Relevant Rulemaking

There is a high degree of similarity between the configurations of the engine installations on the incident airplane (Model 747-400) and certain Model 767 series airplanes. The FAA may consider rulemaking to address this condition on Model 767 series airplanes; therefore, this proposed rule is applicable only to Model 747-400 series airplanes.

Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Alert Service Bulletin 747-71A2283, dated October 10, 1996, which describes procedures for repetitive detailed visual inspections to detect improper installation and fatigue damage of the end cap of the forward engine mount, and replacement of the end cap assembly of the forward engine mount with an improved assembly. Such replacement would eliminate the need for the repetitive inspections. Accomplishment of this replacement, as described in the alert 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 alert service bulletin described previously, except as discussed below.

Differences Between Proposed Rule and Service Bulletin

Boeing Alert Service Bulletin 747-71A2283 divides the affected airplanes into two groups depending upon the particular engine configuration of the affected airplane, and provides different procedures depending upon group classification and engine on-wing flight cycles. Operators should note that, whereas the alert service bulletin specifies that operators of Group 1 airplanes should contact the manufacturer for disposition of the terminating action, this proposed AD would require that the end cap and bolts be replaced in accordance with the procedures specified in Chapter 71-00-00 of the Boeing 747 Airplane Maintenance Manual (AMM).

Additionally, the alert service bulletin specifies that certain actions required by this proposed AD may be accomplished in accordance with "an operator's equivalent procedure." However, this proposed AD requires that those actions be accomplished in accordance with the procedures specified in Chapter 71-00-00 of the AMM. An "operator's equivalent procedure" may be used only if approved as an alternative method of compliance in accordance with paragraph (e) of this proposed AD.

Cost Impact

There are approximately 133 airplanes of the affected design in the worldwide fleet. The FAA estimates that 36 airplanes of U.S. registry would be affected by this proposed AD: 35 Group 1 airplanes, and 1 Group 2 airplane.

It would take approximately 36 work hours per Group 1 airplane (9 work hours per engine) to accomplish the proposed inspection, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of this proposed inspection on U.S. operators is estimated to be \$75,600, or \$2,160 per airplane, per inspection cycle.

It would take approximately 272 work hours per airplane (68 work hours per engine) for both Group 1 and Group 2 airplanes to accomplish the proposed replacement of the forward engine mount end cap and/or end cap bolts, at an average labor rate of \$60 per work

hour. Required parts would cost approximately \$1,000 per airplane. Based on these figures, the cost impact of this proposed replacement on U.S. operators is estimated to be \$623,520, or \$17,320 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 97-NM-89-AD.

Applicability: Model 747-400 series airplanes powered by Pratt & Whitney PW4000 engines, as listed in Boeing Alert Service Bulletin 747-71A2283, dated October 10, 1996; 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 possible separation of the engine from the airplane in the event of a primary thrust linkage failure, accomplish the following:

(a) For Group 1 airplanes, as identified in Boeing Alert Service Bulletin 747-71A2283, dated October 10, 1996: Except as provided by paragraph (c) of this AD, accomplish paragraphs (a)(1) and (a)(2), of this AD, as applicable, in accordance with the alert service bulletin.

(1) Within 500 hours time-in-service after the effective date of this AD, perform a detailed visual inspection (Work Package 1) to detect improper installation of the end cap of the forward engine mount, in accordance with the alert service bulletin.

(i) If no attachment hardware is found loose or missing, and if no part shows signs of damage, repeat the inspection thereafter at intervals not to exceed 5,000 hours time-in-service or 15 months, whichever occurs first, until the requirements of paragraph (a)(2) of this AD have been accomplished.

(ii) If any attachment hardware is found loose or missing, or if any part shows signs of damage, prior to further flight, replace the end cap and bolts with an improved end cap and bolts (Work Package 2), in accordance with the alert service bulletin.

Accomplishment of the replacement constitutes terminating action for the requirements of this AD for Group 1 airplanes.

(2) Replace the existing end cap and end cap bolts of the forward engine mount with an improved end cap and end cap bolts (Work Package 2), at the earlier of the times specified in paragraphs (a)(2)(i) and (a)(2)(ii) of this AD. Accomplishment of the replacement constitutes terminating action for the requirements of this AD for Group 1 airplanes.

(i) Prior to the accumulation of 16,000 total flight cycles on any engine, or within 500

hours time-in-service after the effective date of this AD, whichever occurs later; or

(ii) Within 3 years after the effective date of this AD.

(b) For Group 2 airplanes, as identified in Boeing Alert Service Bulletin 747-71A2283, dated October 10, 1996: Except as provided by paragraph (c) of this AD, within 3 years after the effective date of this AD, replace the existing end cap bolts of the forward engine mount with improved end cap bolts (Work Package 3), in accordance with the alert service bulletin.

(c) Where Boeing Alert Service Bulletin 747-71A2283, dated October 10, 1996, specifies that the actions required by this AD may be accomplished in accordance with an "operator's equivalent procedure," the actions must be accomplished in accordance with Chapter 71-00-00 of the Boeing 747 Airplane Maintenance Manual (AMM), as specified in the alert service bulletin.

(d) As of the effective date of this AD, no person shall install on any airplane a forward engine mount end cap having part number 310T3026-1.

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

(f) 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 May 14, 1998.

John J. Hickey,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 98-13405 Filed 5-19-98; 8:45 am]

BILLING CODE 4910-13-U

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 98-NM-105-AD]

RIN 2120-AA64

Airworthiness Directives; Airbus Model A320 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 Airbus Model A320 series airplanes. This proposal would require an electrical continuity test of the discharge circuit for the cargo compartment fire extinguisher bottle to detect any cross-connection of the electrical wires in the cargo compartment discharge circuit, and corrective actions, if necessary. This proposal is prompted by issuance of mandatory continuing airworthiness information by a foreign civil airworthiness authority. The actions specified by the proposed AD are intended to prevent incorrect distribution of fire extinguishing chemicals in the event of an unconfined fire in the cargo compartment.

DATES: Comments must be received by June 19, 1998.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 98-NM-105-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 Airbus Industrie, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington.

FOR FURTHER INFORMATION CONTACT: Norman B. Martenson, Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax (425) 227-1149.

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-105-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-105-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

Discussion

The Direction Générale de l'Aviation Civile (DGAC), which is the airworthiness authority for France, notified the FAA that an unsafe condition may exist on certain Airbus Model A320 series airplanes. The DGAC advises that an operator found, on two airplanes, cross-connections in the cargo compartment discharge circuit for the fire extinguisher bottle. The aft cargo compartment electrical connector had been fitted on the bottle discharge circuit dedicated to the forward cargo compartment fire extinguisher. The forward cargo compartment electrical connector was fitted on the aft compartment electrical connector. These cross-connections were attributed to the wire loom (bundle) being incorrectly identified, which the manufacturer has since corrected. This condition, if not corrected, could result in the incorrect distribution of fire extinguishing chemicals in the event of an unconfined fire in the cargo compartment.

Explanation of Relevant Service Information

Airbus has issued All Operator Telex (AOT) 26-10, dated April 5, 1993, which describes procedures for an electrical continuity test of the discharge circuit for the cargo compartment fire extinguisher bottle to detect any cross-connection of the electrical wires in the cargo compartment discharge circuit, and corrective actions, if necessary. The corrective actions include re-identification of the wiring loom and connection of electrical connectors to