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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2006-24891; Directorate Identifier 2006-NM-080-AD; Amendment 39-14910; AD 2007-02-23]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 777-200, -300, and -300ER Series Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Boeing Model 777-200, -300, and -300ER series airplanes. This AD requires replacement of the gimbal plates of the left and right outboard trailing edge flaps with improved gimbal plates and other specified actions. This AD results from a broken pivot link found on the inboard support for the outboard trailing edge flap. We are issuing this AD to prevent disconnection of the drive arm from its drive gimbal, due to a broken pivot link on an outboard flap support, which could result in unexpected roll of the airplane and loss of control of the airplane.

DATES: This AD becomes effective March 2, 2007.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of March 2, 2007.

ADDRESSES: You may examine the AD docket on the Internet at <http://dms.dot.gov> or in person at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC.

Contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207, for service information identified in this AD.

FOR FURTHER INFORMATION CONTACT: Gary Oltman, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6443; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION:

Examining the Docket

You may examine the airworthiness directive (AD) docket on the Internet at <http://dms.dot.gov> or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the street address stated in the ADDRESSES section.

Discussion

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to certain Boeing Model 777-200, -300, and -300ER series airplanes. That NPRM was published in the Federal Register on May 26, 2006 (71 FR 30338). That NPRM proposed to require replacement of the gimbal plates of the left and right outboard trailing edge flaps with improved gimbal plates and other specified actions.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the comments received.

Support for the NPRM

Boeing, British Airways, American Airlines, and the Air Transport Association (ATA) support the intent of the NPRM.

Request To Use Existing Gimbal Plates

Delta Airlines requests that we either have Boeing revise Alert Service Bulletin 777-27A0073, dated March 30, 2006, or that we revise paragraph (f) of the NPRM to allow operators to deviate from the referenced service bulletin. The commenter would like to continue to use existing gimbal plates having part numbers (P/Ns) 113W1112-3, 113W1112-4, 113W1212-3, and 113W1212-4. As justification, the commenter states the service bulletin specifies installing improved gimbal plates having P/Ns 113W1112-7, 113W1112-8, 113W1212-7, and 113W1212-8, but it does not specify to replace or remove the existing parts. The commenter also cites paragraph (g) of the NPRM, which allows installation of the existing parts if an airplane is modified in accordance with paragraph (f) of the NPRM.

We do not agree to allow use of the existing gimbal plates. Although the existing gimbal plate part numbers are not identified explicitly in the service bulletin, we confirmed with Boeing that they are P/Ns 113W1112-3, 113W1112-4, 113W1212-3, and 113W1212-4. Further, the effectivity of Boeing Alert Service Bulletin 777-27A0073 identifies Model 777-200, -300, and -300ER series airplanes that have the existing gimbal plates installed and approved as part of their type design. The intent of the service bulletin is to replace the existing gimbal plates with new, improved gimbal plates having P/Ns 113W1112-7, 113W1112-8, 113W1212-7, and 113W1212-8. These new, improved gimbal plates are identified clearly in the service bulletin and must be installed to adequately address the unsafe condition of this AD. We acknowledge that paragraph (g) of the NPRM is confusing in that it contains the phrase "* * * unless it has been modified in accordance with paragraph (f) of this AD." However, that phrase is not accurate and was inadvertently included in the NPRM. We have deleted that phrase from paragraph (g) of this AD.

Request for Clarification on Improved Gimbal Plates

Delta Airlines requests clarification on the new, improved gimbal plates. The commenter states that the NPRM and Boeing Alert Service Bulletin 777-27A0073, dated March 30, 2006, do not appear to be in agreement regarding use of existing gimbal plate P/Ns 113W1112-3, 113W1112-4, 113W1212-3, and 113W1212-4. The commenter also states that these part numbers are not referenced in the service bulletin. The commenter further requests that we provide more information regarding usage of the new, improved P/Ns 113W1112-7, 113W1112-8, 113W1212-7, and 113W1212-8.

We acknowledge that paragraph (g) of the NPRM has caused confusion regarding the existing and new, improved part numbers. As stated previously, we have deleted a certain phrase to clarify that the existing parts may no longer be installed on the affected airplanes. Installation of the new, improved parts is necessary to adequately address the unsafe condition of this AD. No further change has been made to this AD in this regard.

Request To Extend Compliance Time

British Airways requests that we extend the compliance time of the NPRM to 30 months. The commenter states that the maintenance planning document schedules zonal inspections at intervals of 6,000 flight cycles or 1,125 days, and that the commenter currently performs these inspections at intervals of 750 days (corresponding to just under 25 months). The commenter contends that the proposed compliance time could cause it to accomplish the gimbal replacement during minor maintenance. The commenter states that extending the compliance time would allow it to accomplish the gimbal replacement at a heavy maintenance facility.

We do not agree with the commenter's request to extend the compliance time. In developing an appropriate compliance time for this action, we considered the safety implications, parts availability, and normal maintenance schedules for the timely accomplishment of the replacement. In consideration of these items, we have determined that a compliance time of 24 months will ensure an acceptable level of safety and allow the modifications to be done during scheduled maintenance intervals for most affected operators. However, under the provisions of paragraph (h) of this AD, we may approve requests for adjustments to the compliance time if data are submitted to substantiate that such an adjustment would provide an acceptable level of safety. We have not revised this AD in this regard.

Request To Revise Compliance Time to Flight Cycles

British Airways requests that we express the compliance time in units of flight cycles. The commenter asserts that calendar time is an inappropriate unit of life control. As justification, the commenter states that flap operations would primarily influence the failure experienced. The commenter proposes 6,000 flight cycles as a more appropriate compliance time.

We disagree with revising the compliance time. Although failure of the pivot link is primarily affected by airplane flight cycles, the original design of the flap system was certified to withstand such a failure. A design deficiency exists in the gimbal plate structure within the flap system. This design deficiency is not fatigue related and accordingly not flight-cycle related. Therefore, it is appropriate to use a calendar time to express the compliance time. The compliance time of 24 months was selected to allow replacement of the gimbal plates during a routine maintenance visit. We have not revised this AD in this regard.

Request To Revise the Costs of Compliance

American Airlines requests that we adjust the costs estimated in the NPRM. American Airlines states that it has accomplished the gimbal plate replacement in accordance with Boeing Alert Service Bulletin 777-27A0073, dated March 30, 2006, on 2 of its 45 affected airplanes. American Airlines estimates that the cost impact for accomplishing the NPRM will be approximately \$84,200 per airplane, or \$3,789,000 for its entire fleet. We infer the commenter would like us to revise the Cost of Compliance paragraph in this AD.

We disagree. The cost information in this AD describes only the direct costs of the specific actions required by this AD. Based on the best data available, the manufacturer provided the number of work hours (153) necessary to do the required actions. This number represents the time necessary to perform only the actions actually required by this AD. We recognize that, in doing the actions required by an AD, operators may incur incidental costs in addition to the direct costs. The cost analysis in AD rulemaking actions, however, typically does not include incidental costs such as the time required to gain access and close up, time necessary for planning, or time necessitated by other administrative actions. Those incidental costs, which may vary significantly among operators, are almost impossible to calculate. We have not changed this AD in this regard.

New Note Added to Paragraph (f)

We have added a note to paragraph (f) of this AD informing operators to pay particular attention that grease or lubricant is not applied to the gimbal plate bolts, bushings, washers, or nuts. Yielding or failure of the bolts could occur due to overtorquing a lubricated attachment that was intended to be installed without lubricant.

Conclusion

We have carefully reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD with the changes described previously. We have determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Costs of Compliance

There are about 546 airplanes of the affected design in the worldwide fleet. This AD affects about 145 airplanes of U.S. registry. The required actions take about 153 work hours per airplane, at an average labor rate of \$80 per work hour. Required parts cost about \$69,850 per airplane. Based on these figures, the estimated cost of the AD for U.S. operators is \$11,903,050, or \$82,090 per airplane.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in subtitle VII, part A, subpart III, section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will 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.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866;
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
- (3) 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.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket. See the ADDRESSES section for a location to examine the regulatory evaluation.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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. The Federal Aviation Administration (FAA) amends § 39.13 by adding the following new airworthiness directive (AD):



2007-02-23 Boeing: Amendment 39-14910. Docket No. FAA-2006-24891; Directorate Identifier 2006-NM-080-AD.

Effective Date

(a) This AD becomes effective March 2, 2007.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Boeing Model 777-200, -300, and -300ER series airplanes, certificated in any category; as identified in Boeing Alert Service Bulletin 777-27A0073, dated March 30, 2006.

Unsafe Condition

(d) This AD results from a broken pivot link found on the inboard support for the outboard trailing edge flap. We are issuing this AD to prevent disconnection of the drive arm from its drive gimbal, due to a broken pivot link on an outboard flap support, which could result in unexpected roll of the airplane and loss of control of the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Replacement of Gimbal Plates

(f) Within 24 months after the effective date of this AD, replace the gimbal plates of the left and right outboard trailing edge flaps with improved gimbal plates, and do the other specified actions before further flight after the replacement, by accomplishing all the actions specified in the Accomplishment Instructions of Boeing Alert Service Bulletin 777-27A0073, dated March 30, 2006.

Note 1: Pay particular attention that grease or lubricant is not applied to the gimbal plate bolts, bushings, washers, or nuts. Yielding or failure of the bolts could occur due to overtorquing a lubricated attachment that was intended to be installed without lubricant.

Parts Installation

(g) As of the effective date of this AD, no person may install a gimbal plate, part numbers 113W1112-3, 113W1112-4, 113W1212-3, and 113W1212-4, on any airplane.

Alternative Methods of Compliance (AMOCs)

(h)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

(2) Before using any AMOC approved in accordance with § 39.19 on any airplane to which the AMOC applies, notify the appropriate principal inspector in the FAA Flight Standards Certificate Holding District Office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD, if it is approved by an Authorized Representative for the Boeing Commercial Airplanes Delegation Option Authorization Organization who has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

Material Incorporated by Reference

(i) You must use Boeing Alert Service Bulletin 777-27A0073, dated March 30, 2006, to perform the actions that are required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference of this document in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207, for a copy of this service information. You may review copies at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., Room PL-401, Nassif Building, Washington, DC; on the Internet at <http://dms.dot.gov>; or at the National Archives and Records Administration (NARA). For information on the availability of this material at the NARA, call (202) 741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on January 17, 2007.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E7-1081 Filed 1-25-07; 8:45 am]