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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-NM-263-AD; Amendment 39-13800; AD 2004-19-06]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 767-200, -300, and -300F Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to all Boeing Model 767-200, -300, and -300F series airplanes, that requires inspections to detect cracking or corrosion of the fail-safe straps between the side fitting of the rear spar bulkhead at body station 955 and the skin; and follow-on/corrective actions. This action is necessary to detect and correct fatigue cracking or corrosion of the fail-safe straps, which could result in cracking of adjacent structure and consequent reduced structural integrity of the fuselage. This action is intended to address the identified unsafe condition.

DATES: Effective November 1, 2004.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of November 1, 2004.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to:

http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

FOR FURTHER INFORMATION CONTACT: Suzanne Masterson, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6441; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to all Boeing Model 767-200, -300, and -300F series airplanes was published in the Federal Register on

March 5, 2004 (69 FR 10364). That action proposed to require inspections to detect cracking or corrosion of the fail-safe straps between the side fitting of the rear spar bulkhead at body station 955 and the skin; and follow-on/corrective actions.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Request To Withdraw Notice of Proposed Rulemaking (NPRM)

One commenter requests that the NPRM be withdrawn. The commenter states that none of the reported incidents described in the Discussion section of the NPRM can be attributed completely to fatigue. The commenter also states that all data to date that suggest this is a fatigue issue are flawed by the fact that there have been three separate contributing factors—corrosion, surface damage, and fretting/small gouging.

The commenter has inspected 43 airplanes and found only one case of cracking, which was the result of surface damage during installation of the fail-safe strap in the factory. The commenter discovered the damage during normal routine maintenance, using an item currently in the maintenance program, and believes that these standard inspections are sufficient to maintain the continued safety of the airplanes. The commenter also points out that this airplane and the second airplane referred to in the Background section of Boeing Alert Service Bulletin 767-53A0100, dated September 26, 2002 (referenced in the AD as the appropriate source of service bulletin for the required actions), have early line numbers and "were [essentially] hand built." The commenter contends that if this is truly a fatigue issue, there would have been at least one other occurrence of fatigue cracking in the 20-plus years that the fleet has been operating. The commenter also notes that Boeing has acknowledged that no cracking was found on its fatigue test article that was tested for 100,000 flight cycles.

We do not agree that the NPRM should be withdrawn. It was not our intention in the Discussion section of the NPRM to imply that the crack findings were attributed completely to fatigue. Because of the critical function of the fail-safe strap, we find that inspections are necessary to detect cracking or corrosion, regardless of the mode by which the crack initiates. Since the issuance of the NPRM, we have received two additional reports of cracks in the fail-safe strap: one report for an airplane that had accumulated 31,809 total flight cycles, and one report from full-scale fatigue testing on a 767 test article. The cracks on the fatigue test article were hidden and were not detected until the joint was disassembled. We have determined that the existing routine maintenance inspections are not sufficient to detect cracked fail-safe straps in a timely, reliable manner. Therefore, this AD is appropriate and warranted.

Request To Delay Issuance of AD

One commenter requests the final rule not be issued until the lack of available replacement straps is resolved. The commenter states that the strap is not repairable at this time. The commenter also states that the airplane manufacturer is working on potential repairs and an analysis to determine if the replacement strap should be strengthened from the original design. The study should be completed by April 15, 2004.

We do not agree that the strap is not repairable. All airplanes on which cracked or corroded straps were found have been successfully repaired with new fail-safe straps, which indicates to us that future crack findings can be successfully repaired. The airplane manufacturer has informed us that the commenter received preliminary information about the study, and that the study is not completed yet. In light of the critical nature of the identified unsafe condition, we do not consider that delaying this action until after the airplane manufacturer develops either an easier repair or an improved strap

design is warranted. However, under the provisions of paragraph (c) of the final rule, we may consider requests for approval of an alternative method of compliance if sufficient data are submitted to substantiate that such a design change would provide an acceptable level of safety.

Request To Correct Information in the Service Bulletin

One commenter requests the following changes to Boeing Alert Service Bulletin 767-53A0100:

1. Mark the area of interest (5-inch radius) on figure 2 of the service bulletin, or add a new photo to the photos already posted on Boeing's Web site under 767-FTD-53-02004 article and refer to the new photo or article in the NPRM. The commenter believes that the instructions in step 1 of figure 2 are too general for the complexity of the structure.

We partially agree with the commenter. We agree that the structure is complex; however, the intent of the service bulletin is to determine whether cracks have begun to propagate in adjacent structure due to the existence of a crack in the fail-safe straps. The service bulletin defines the extent of the adjacent structure to be inspected as "within 5 inches of the area of the typical crack area," as shown in Detail A of figure 2. This definition applies to the structure that is visible after doing the access procedures in the Work Instructions of the service bulletin. We have determined that the inspection is possible without further clarification. No change to the final rule is necessary in this regard.

2. Revise step 2 of the Work Instructions of the service bulletin to read, "Open the Main Landing Gear (MLG) doors * * *" instead of "Open the Main Landing Green (MGL) door. * * *" Revise steps 2 and 8 to refer to 767 Airplane Maintenance Manual (AMM) 32-12-00, not 32-00-20.

We partially agree. We agree with the commenter that the word "green" in the service bulletin is incorrect. We also agree that the 767 AMM 32-00-20 does not include instructions for opening the MLG doors. However, the correct reference is 767 AMM 32-00-15, not 767 AMM 32-12-00 as suggested by the commenter. 767 AMM 32-00-15, which is referred to in steps 3 and 7 of the Work Instructions, describes procedures for opening and closing the MLG doors using the ground release lever before installing the MLG door locks and after removing them. Boeing has no plans at this time to revise the service bulletin to fix these errors. Therefore, we have added a note in the final rule to point out the errors in the service bulletin.

Conclusion

After careful review of the available data, including the comments noted above, we have determined that air safety and the public interest require the adoption of the rule as proposed.

Interim Action

This is considered to be interim action until final action is identified, at which time we may consider further rulemaking.

Cost Impact

There are approximately 833 airplanes of the affected design in the worldwide fleet. We estimate that 354 airplanes of U.S. registry will be affected by this AD, that it will take approximately 2 work hours per airplane to accomplish the required inspections, and that the average labor rate is \$65 per work hour. Based on these figures, the cost impact of the AD on U.S. operators is estimated to be \$46,020, or \$130 per airplane, per inspection cycle.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this 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 adopted herein 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. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (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. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends 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:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2004-19-06 Boeing: Amendment 39-13800. Docket 2002-NM-263-AD.

Applicability: All Model 767-200, -300, and -300F series airplanes, certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To detect and correct fatigue cracking or corrosion of the fail-safe straps, which could result in cracking of adjacent structure and consequent reduced structural integrity of the fuselage, accomplish the following:

Inspections and Follow-On/Corrective Actions

(a) Except as provided by paragraph (b) of this AD, prior to the accumulation of 15,000 total flight cycles, or within 3,000 flight cycles after the effective date of this AD, whichever occurs later, perform a detailed inspection and eddy current inspection to detect cracking or corrosion of the fail-safe straps between the side fitting of the rear spar bulkhead at BS 955 and the skin, per Figure 2 of the Accomplishment Instructions of Boeing Alert Service Bulletin 767-53A0100, dated September 26, 2002.

Note 1: For the purposes of this AD, a detailed 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 crack or corrosion is found, repeat the inspections thereafter at intervals not to exceed 6,000 flight cycles or 36 months, whichever occurs first.

(2) If any crack or corrosion is found, before further flight, repair per a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA; or 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, the approval must specifically reference this AD.

(b) For airplanes on which the fail-safe strap has been replaced before the effective date of this AD: Do the actions required by paragraph (a) of this AD within 12,000 flight cycles after accomplishing the replacement.

Note 2: Steps 2 and 8 of the Work Instructions of Boeing Alert Service Bulletin 767-53A0100, dated September 26, 2002, refer incorrectly to 767 Airplane Maintenance Manual (AMM) 32-00-20 for opening the MLG doors; the correct reference is 767 AMM 32-00-15, which is referred to in steps

3 and 7 of the Work Instructions. Step 2 also should state "Open Main Landing Gear (MLG) doors" instead of "Open Main Landing Green (MLG) doors."

Alternative Methods of Compliance

(c)(1) In accordance with 14 CFR 39.19, the Manager, Seattle ACO, FAA, is authorized to approve alternative methods of compliance (AMOCs) for this AD.

(2) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD, if it is approved by a Boeing Company Designated Engineering Representative who has been authorized by the Manager, Seattle ACO, to make such findings.

Incorporation by Reference

(d) Unless otherwise specified in this AD, the actions shall be done in accordance with Boeing Alert Service Bulletin 767-53A0100, dated September 26, 2002. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Effective Date

(e) This amendment becomes effective on November 1, 2004.

Issued in Renton, Washington, on September 13, 2004.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

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