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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2007-0263; Directorate Identifier 2007-NM-207-AD; Amendment 39-15530; AD 2008-11-08]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737-600, -700, -700C, -800, -900, and -900ER Series Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Boeing Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes. This AD requires repetitive inspections for any cracking of or damage to the left side and right side flight deck No. 2, No. 4, and No. 5 windows, as necessary, and corrective actions if necessary. This AD results from reports of in-flight departure and separation of the flight deck windows. We are issuing this AD to detect and correct cracking in the vinyl interlayer or damage to the structural inner glass panes of the flight deck No. 2, No. 4, and No. 5 windows, which could result in loss of a window and rapid loss of cabin pressure. Loss of cabin pressure could cause crew communication difficulties or crew incapacitation.

DATES: This AD is effective July 3, 2008.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of July 3, 2008.

ADDRESSES: For service information identified in this AD, contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (telephone 800-647-5527) is the Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Wayne Lockett, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6447; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an airworthiness directive (AD) that would apply to all Boeing Model 737-600, -700, -700C, -800, and -900 series airplanes. That NPRM was published in the Federal Register on December 3, 2007 (72 FR 67864). That NPRM proposed to require repetitive inspections for any cracking of or damage to the left side and right side flight deck No. 2, No. 4, and No. 5 windows, as necessary, and corrective actions if necessary.

Changes Made to This AD

We have revised the applicability of this AD to clearly identify that Boeing Model 737-900ER series airplanes are also subject to the requirements of this AD. These airplanes were not previously identified in the applicability of the NPRM because they were type certificated after issuance of Boeing Alert Service Bulletin 737-56A1022, dated July 18, 2007, which we referenced for the applicability of the NPRM. Although these airplanes are not explicitly identified in the effectivity of the service bulletin, they are included as Group 2 airplanes in the service bulletin.

We have deleted paragraph (h)(4) of the NPRM and added a new paragraph (h) to this AD specifying that installation of metallic window blanks at cockpit eyebrow windows No. 4 and No. 5 in accordance with Supplemental Type Certificate (STC) ST01630SE terminates the initial and repetitive inspections for the flight deck No. 4 and No. 5 windows required by paragraph (f) of this AD. Incorporation of STC ST01630SE is considered a terminating action, not an alternative method of compliance (AMOC), since an AMOC can be issued only after an AD has been issued. We also have reidentified the AMOC paragraph of the NPRM as paragraph (j) in this AD.

Comments

We gave the public the opportunity to participate in developing this AD. We considered the comments received from the three commenters.

Support for the NPRM

Boeing and AirTran Airways agree with the NPRM.

Request To Add Terminating Action

AirTran Airways and Continental Airlines (CAL) request that we revise the NPRM to specify that installing structural plugs at cockpit eyebrow windows No. 4 and No. 5 in accordance with Boeing Service Bulletin 737-56-1017, dated May 17, 2006; or Revision 1, dated February 15, 2007; terminates the initial and repetitive inspections for the flight deck No. 4 and No. 5 windows. CAL notes that a similar statement is found in Tables 2 and 3 of Boeing Alert Service Bulletin 737-56A1022, dated July 18, 2007. (We referred to Boeing Alert Service Bulletin 737-56A1022 as the appropriate source of service information for accomplishing the proposed requirements of the NPRM.)

We agree with the commenters and have added a new paragraph (i) to this AD accordingly.

Request To Revise the Applicability

CAL requests that we limit the applicability of the NPRM to airplanes delivered before line number 2589. As justification, CAL states that new production airplanes do not include the flight deck No. 4 and No. 5 windows, and that Boeing is in the final stages of approving a new, improved flight deck No. 2 window, part numbers 5-89355-87 and -88. According to CAL, the new, improved No. 2 window, which is manufactured by PPG Aerospace, is designed specifically to address the unsafe condition of the NPRM. CAL also states that Boeing plans to install the new, improved No. 2 windows on new production airplanes this year.

We do not agree to exclude any airplanes from the applicability of this AD. The affected flight deck No. 2 windows are interchangeable with the new, improved windows manufactured by PPG Aerospace; therefore, the unsafe condition could be introduced on a new production airplane if an affected No. 2 window is installed after airplane delivery. We have not changed this AD in this regard.

Request To Track Compliance Time by Flight Cycles

AirTran Airways requests that we add an option to this AD to allow operators to track the inspections by airplane flight cycles instead of window flight hours, provided that any used window is inspected before it is installed. AirTran Airways states that tracking compliance by a component rather than by airplane is more difficult due to the extra work and documentation generated for the removal and installation of a component. According to AirTran Airways, tracking compliance by component also increases the opportunity for human factor errors. AirTran Airways also states that tracking inspections by airplane flight cycles will accomplish the inspections within the same timeframe as proposed in the NPRM and be less of a burden.

We disagree with allowing operators to track compliance by airplane flight cycles because the unsafe condition is primarily related to window flight hours. The utilization of airplanes within the fleet varies from short to long flight hours per flight cycle. Therefore, we have not changed this AD in this regard.

Request To Revise the Compliance Time for the No. 2 Window

CAL requests that we revise the compliance time for the initial inspection of the flight deck No. 2 window to within 36 months or 7,500 flight hours, whichever occurs first, after the window installation; or to within 24 months, for windows installed more than 36 months ago or for windows where the number of flight hours is unknown. CAL states that the NPRM, which proposes to require the initial inspection within 24 months after the effective date of this AD regardless of the age or flight time of the window, unnecessarily penalizes operators who proactively inspect and replace the No. 2 window before the AD is issued. CAL also states that, according to the wording in the NPRM, a window replaced one day before the effective date of the AD would need to be re-inspected within 24 months, but a window inspected and replaced one day after the effective date of the AD would not need to be re-inspected until 36 months or 7,500 window flight hours.

We do not agree to revise the compliance time for the initial inspection of the flight deck No. 2 window. According to paragraph (e) of this AD, an operator is responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done. If the initial inspection of the No. 2 window was done before the effective date of this AD in accordance with Boeing Alert Service Bulletin 737-56A1022, dated July 18, 2007, then the initial inspection does not need to be accomplished again; only the repetitive inspections would need to be accomplished in accordance with the service bulletin at the applicable interval specified in the service bulletin. If the initial and repetitive inspections of the No. 2 window are done before the effective date of this AD, but are not done in accordance with the service bulletin, then those inspections are not acceptable for compliance with this AD unless an AMOC is issued for those prior inspections.

Under the provisions of paragraph (j) of this AD, we will consider requests for approval of an AMOC if sufficient data are submitted to substantiate that prior inspections incorporate similar criteria to what is provided for in the service bulletin. Therefore, no change to this AD is necessary in this regard.

Request for an AMOC for a Parts Manufacturer Approval (PMA) Equivalent Part

CAL states that the FAA has approved a new, improved flight deck No. 2 window designed by GKN Aerospace Transparency Systems, under PMA Holder No. PQ1250NM, Supplement 10, dated September 17, 2007. CAL also states that the new, improved No. 2 window was designed to prevent the premature failure of the window, and that the new, improved window addresses the unsafe condition of the NPRM. CAL, therefore, requests that we add a new AMOC paragraph to this AD, which would exempt the new, improved No. 2 window from the required inspections.

We do not agree to allow the PMA equivalent No. 2 window as an AMOC to the required inspections. Although the window has been approved as a PMA equivalent part, the commenter has not provided data showing that the PMA equivalent window is not susceptible to the same vinyl interlayer cracking. However, under the provisions of paragraph (j) of this AD, we will consider requests for approval of an AMOC if sufficient data are submitted to substantiate that the design change would provide an acceptable level of safety. No change to this AD is necessary in this regard.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting the AD with the changes described previously. We also determined that these changes will not increase the economic burden on any operator or increase the scope of the AD.

Costs of Compliance

There are about 2,127 airplanes of the affected design in the worldwide fleet. This AD affects about 737 airplanes of U.S. registry. The required actions take about 2 work hours per airplane, at an average labor rate of $80 per work hour. Based on these figures, the estimated cost of the AD for U.S. operators is $117,920, or $160 per airplane, per inspection cycle.

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

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.

You can find our regulatory evaluation and the estimated costs of compliance in the AD Docket.

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 FAA amends § 39.13 by adding the following new AD:

2008-11-08 Boeing: Amendment 39-15530. Docket No. FAA-2007-0263; Directorate Identifier 2007-NM-207-AD.

Effective Date

(a) This airworthiness directive (AD) is effective July 3, 2008.

Affected ADs

(b) None.

Applicability

(c) This AD applies to all Boeing Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, certificated in any category.

Unsafe Condition

(d) This AD results from reports of in-flight departure and separation of the flight deck windows. We are issuing this AD to detect and correct cracking in the vinyl interlayer or damage to the structural inner glass panes of the flight deck No. 2, No. 4, and No. 5 windows, which could result in loss of a window and rapid loss of cabin pressure. Loss of cabin pressure could cause crew communication difficulties or crew incapacitation.

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.

Repetitive Inspections and Replacement

(f) At the applicable times specified in Tables 1, 2, and 3 of paragraph 1.E. of Boeing Alert Service Bulletin 737-56A1022, dated July 18, 2007, except as provided by paragraph (g) of this AD: Do the internal and external detailed inspections for any cracking of or damage to the left side and right side flight deck No. 2, No. 4, and No. 5 windows, as applicable, and do the applicable corrective actions before further flight, by accomplishing all of the applicable actions specified in the Accomplishment Instructions of Boeing Alert Service Bulletin 737-56A1022, dated July 18, 2007. Repeat the inspections thereafter at the applicable interval specified in paragraph 1.E. of Boeing Alert Service Bulletin 737-56A1022, dated July 18, 2007.

Exception to Compliance Times

(g) Where Tables 1, 2, and 3 of paragraph 1.E. of Boeing Alert Service Bulletin 737-56A1022, dated July 18, 2007, specify counting the compliance time from " * * * the date on this service bulletin," this AD requires counting the compliance time from the effective date of this AD.

Optional Terminating Actions

(h) Installation of metallic window blanks at cockpit eyebrow windows No. 4 and No. 5 in accordance with Supplemental Type Certificate ST01630SE terminates the initial and repetitive inspections for the flight deck No. 4 and No. 5 windows required by paragraph (f) of this AD. All other applicable actions required by paragraph (f) of this AD must be fully complied with.

(i) Installation of structural plugs at cockpit eyebrow windows No. 4 and No. 5 in accordance with Boeing Service Bulletin 737-56-1017, dated May 17, 2006; or Revision 1, dated February 15, 2007, terminates the initial and repetitive inspections for the flight deck No. 4 and No. 5 windows required by paragraph (f) of this AD. All other applicable actions required by paragraph (f) of this AD must be fully complied with.

Alternative Methods of Compliance (AMOCs)

(j)(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) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(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

(k) You must use Boeing Alert Service Bulletin 737-56A1022, dated July 18, 2007, to do the actions required by this AD, unless the AD specifies otherwise. If you do the optional actions specified in this AD, you must use Boeing Service Bulletin 737-56-1017, dated May 17, 2006; or Boeing Service Bulletin 737-56-1017, Revision 1, dated February 15, 2007, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207.

(3) You may review copies of the service information incorporated by reference 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.

Issued in Renton, Washington, on May 10, 2008.
Michael J. Kaszycki,
Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.
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