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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2007-28828; Directorate Identifier 2007-NM-010-AD; Amendment 39-15258; AD 2007-23-12]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 707 Airplanes and Model 720 and 720B Series Airplanes

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

ACTION: Final rule; correction.

SUMMARY: The FAA is correcting an error in an existing airworthiness directive (AD) that was published in the Federal Register on November 13, 2007 (72 FR 63800). The error resulted in the wrong appendix information. This AD applies to all Boeing Model 707 airplanes and Model 720 and 720B series airplanes. This AD requires accomplishing an airplane survey to define the configuration of certain system installations, and repair of any discrepancy found. This AD also requires modifying the fuel system by installing lightning protection for the fuel quantity indication system (FQIS), ground fault relays for the fuel boost pumps, and additional power relays for the center tank fuel pumps and uncommanded on-indication lights at the flight engineer's panel.

DATES: Effective Date: January 10, 2008.

ADDRESSES: 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: Kathrine Rask, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 917-6505; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION: On October 12, 2007, the FAA issued AD 2007-23-12, amendment 39-15258 (72 FR 63800, November 13, 2007), for all Boeing Model 707 airplanes and Model 720 and 720B series airplanes. The AD requires accomplishing an airplane survey to define the configuration of certain system installations, and repair of any discrepancy found. The AD also requires modifying the fuel system by installing lightning protection for the fuel quantity indication system (FQIS), ground fault relays for the fuel boost pumps, and additional power relays for the center tank fuel pumps and uncommanded on-indication lights at the flight engineer's panel.

As published, the AD included Appendix 1. That appendix, as published, contained information not intended for the AD. The correct appendix appears below as Appendix 1.

Appendix 1 of the AD, as corrected, contains the Model 707 SFAR 88 survey areas. The appendix is for informational use and provides highlights of the general content of the required survey to assist operators in developing an acceptable survey plan. Operators may wish to use the appendix as an aid to implementing the airplane survey.

No other part of the regulatory information has been changed; therefore, the final rule is not republished in the Federal Register.

The effective date of this AD remains December 18, 2007.

§ 39.13 [Corrected]

In the Federal Register of November 13, 2007, on pages 63803 and 63804, Appendix 1 of AD 2007-23-12 is corrected to read as follows:

* * * * *

Appendix 1. Model 707 SFAR 88 Survey Areas

Model 707 SFAR-88 Survey

To support the development of the modifications required by this AD, a survey of the airplane is required to identify the current systems configuration, potential locations for new components, and potential wiring routes. The survey should examine the following areas of the airplane: flight deck, electrical equipment (E/E) bay, mix bay, left and right wing-to-body areas, left and right wing leading edges, and inside the fuel tanks. The report should consist of part numbers of the fuel quantity indication system (FQIS) components and fuel pumps, schematics for the FQIS and fuel pump control systems, and photos with dimensions and body and/or wing stations identified depicting the information below. Video, sketches or marked up drawings may also be acceptable.

(1) Flight Deck

- Places for new circuit breakers that may be installed on the P1, P2, P3, P4 and/or P5 panels.
- Places for new indication lights that may be installed in the lower P11 panel.
- Photos of the flight deck area above and below the engineer's panel and on the opposite side showing the existing wire bundle routing with the ceiling and side panels removed. This could be used to route additional wire bundles to the E/E bay.
- Part number(s) of the FQIS indicators installed in the P11 panel.
- Verify if a remote trimmer is installed for this indicator.

(2) E/E Bay

- Photos of any location within the E/E bay where there is enough space to install an electrical junction box, up to a 22 x 12 x 4.0 inch area. Possible locations are along the body structure and beneath the cabin floor.

(3) Mix Bay

- Photos showing the tubing and duct routing from the wing section.
- Photos of the current wire bundles in the mix bay.
- Photos for the installation of an electrical junction box, up to a 9 x 6 x 6 inch area.
- Photos from both inside the aircraft fuselage showing the wire routing and pressure vessel penetration.

(4) Leading Edge

- Photos of the FQIS connectors on the front spar for all fuel tanks.
- Photos of the front spar from the reserve tank to the center tank. Photos should show tubing installations, existing wire harnesses, pneumatic ducts, etc.
- Photos of areas between the engine struts, outboard of engine 1 and 4, and between the inboard strut and side of body with a free 9 x 3 x 5 inch accessible area. New FQIS wire routing should have a minimum of 2 inch separation from existing wires, a new location for FQIS spar penetration connectors may be necessary.
- Photos of the front spar and seal ribs with in the strut area with the access panels removed.

(5) Wing to Body (Un-Pressurized Wire Penetrations)

- Photos of the existing wire bundle penetrations through the pressure vessel and a 3 foot radius area around the existing wire bundle penetrations in the wing to body fairing (view from the front spar looking inboard).

(6) Fuel Tanks (Non-Explosion Proof Equipment Is Generally Not Allowed Inside Fuel Tanks)

- Photos of the FQIS probes and the wiring for the probes.
- Photos along the wiring to the spar penetration.
- Photos of the internal tank structure and plumbing.

If, while accomplishing the survey, any discrepancy with the structure, fuel system, or other systems is found, repairs must be accomplished prior to further flight in accordance with this AD.

* * * * *

Issued in Renton, Washington, on December 19, 2007.
Ali Bahrami,
Manager, Transport Airplane Directorate, Aircraft Certification Service.
[FR Doc. E7-25504 Filed 1-9-08; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2007-28828; Directorate Identifier 2007-NM-010-AD; Amendment 39-15258; AD 2007-23-12]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 707 Airplanes and Model 720 and 720B 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 all Boeing Model 707 airplanes and Model 720 and 720B series airplanes. This AD requires accomplishing an airplane survey to define the configuration of certain system installations, and repair of any discrepancy found. This AD also requires modifying the fuel system by installing lightning protection for the fuel quantity indication system (FQIS), ground fault relays for the fuel boost pumps, and additional power relays for the center tank fuel pumps and uncommanded on-indication lights at the flight engineer's panel. This AD results from fuel system reviews conducted by the manufacturer. We are issuing this AD to prevent certain failures of the fuel pumps or FQIS, which could result in a potential ignition source inside the fuel tank, which, in combination with flammable fuel vapors, could result in a fuel tank explosion and consequent loss of the airplane.

DATES: This AD becomes effective December 18, 2007.

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: Kathrine Rask, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6505; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION:

Discussion

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to all Boeing Model 707 airplanes and Model 720 and 720B series airplanes. That NPRM was published in the Federal Register on August 1, 2007 (72 FR 41958). That NPRM proposed to require accomplishing an airplane survey to define the configuration of certain system installations, and repair of any discrepancy found. That NPRM proposed to also require modifying the fuel system by installing lightning protection for the fuel quantity indication system, ground fault relays for the fuel boost pumps, and additional power relays for the center tank fuel pumps and uncommanded on-indication lights at the flight engineer's panel.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the single comment received. The commenter, Boeing, supports the NPRM.

Conclusion

We have carefully reviewed the available data, including the comment received, and determined that air safety and the public interest require adopting the AD as proposed.

Costs of Compliance

There are about 185 airplanes of the affected design in the worldwide fleet. This AD affects about 52 airplanes of U.S. registry.

The required survey takes about 20 work hours per airplane, at an average labor rate of $80 per work hour. Based on these figures, the estimated cost of the survey for U.S. operators is $83,200, or $1,600 per airplane.

Because the manufacturer has not yet developed a modification commensurate with the actions specified by this AD, we cannot provide specific information regarding the required number of work hours or the cost of parts to do the required modification. In addition, modification costs will likely vary depending on the operator and the airplane configuration. The compliance time of 72 months should provide ample time for the development, approval, and installation of an appropriate modification.

Based on similar modifications accomplished previously on other airplane models, however, we can reasonably estimate that the modification may require as many as 420 work hours per airplane, at an average labor rate of $80 per work hour. Required parts may cost up to $185,000 per airplane. Based on these figures, the estimated cost of the modification for U.S. operators may cost up to $11,367,200, or $218,600 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, 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):

CORRECTION: [*Federal Register: January 10, 2008 (Volume 73, Number 7)]; Page 1816-1817; www.access.gpo.gov/su_docs/aces/aces140.html*]

2007-23-12 Boeing: Amendment 39-15258. Docket No. FAA-2007-28828; Directorate Identifier 2007-NM-010-AD.

Effective Date

(a) This AD becomes effective December 18, 2007.

Affected ADs

(b) None.

Applicability

(c) This AD applies to all Boeing Model 707-100 long body, -200, -100B long body, and -100B short body series airplanes; and Model 707-300, -300B, -300C, and -400 series airplanes; and Model 720 and 720B series airplanes; certificated in any category.

Unsafe Condition

(d) This AD results from fuel system reviews conducted by the manufacturer. We are issuing this AD to prevent certain failures of the fuel pumps or fuel quantity indication system (FQIS), which could result in a potential ignition source inside the fuel tank, which, in combination with flammable fuel vapors, could result in fuel tank explosion and consequent loss 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.

Airplane Survey

(f) Within 12 months after the effective date of this AD: Conduct an airplane survey that defines the configuration of system installations for the wing leading edges, wing-to-body area, electrical equipment bay, flight deck, and FQIS using a method approved in accordance with the procedures specified in paragraph (h)(1) of this AD. If any discrepancy is detected, repair before further flight using a method approved in accordance with the procedures specified in paragraph (h)(1) of this AD. Submit the survey results to the Manager, Seattle Aircraft Certification Office (ACO), FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356, at the applicable time specified in paragraph (f)(1) or (f)(2) of this AD. The report must include the survey results (e.g., photographs and sketches, part numbers of FQIS components and fuel pumps, and the actual configuration of FQIS and the fuel pump control systems), a description of any discrepancy found, the airplane serial number, and the number of landings and flight hours on the airplane. Under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved

the information collection requirements contained in this AD and has assigned OMB Control Number 2120-0056.

(1) If the survey was done after the effective date of this AD: Submit the report within 30 days after the survey.

(2) If the survey was done before the effective date of this AD: Submit the report within 30 days after the effective date of this AD.

Note 1: For the purposes of this AD, "discrepancy" is defined as any wear or deterioration (e.g., damage, fluid leaks, corrosion, cracking, or system failures) that might prevent the airplane from being in an airworthy condition.

Modification of Fuel System

(g) Within 72 months after the effective date of this AD: Modify the fuel system as specified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD, using a method approved in accordance with the procedures specified in paragraph (h)(1) of this AD.

(1) Replace the FQIS wire bundle along the leading edge of the left and right wings with a new wire bundle that has a lightning shield that is separated from other wiring.

(2) Replace each fuel pump relay with a ground fault interrupter relay.

(3) Install redundant power relays for the center tank fuel pumps and uncommanded on-indication lights at the flight engineer's panel.

Alternative Methods of Compliance (AMOCs)

(h)(1) The Manager, Seattle ACO 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.

Material Incorporated by Reference

(i) None.

Appendix 1. Model 707 SFAR 88 Survey Areas

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(1) Flight Deck

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- Places for new indication lights that may be installed in the lower P11 panel.
- Photos of the flight deck area above and below the engineer's panel and on the opposite side showing the existing wire bundle routing with the ceiling and side panels removed. This could be used to route additional wire bundles to the E/E bay.
- Part number(s) of the FQIS indicators installed in the P11 panel.
- Verify if a remote trimmer is installed for this indicator.

(2) E/E Bay

- Photos of any location within the E/E bay where there is enough space to install an electrical junction box, up to a 22 x 12 x 4.0 inch area. Possible locations are along the body structure and beneath the cabin floor.

(3) Mix Bay

- Photos showing the tubing and duct routing from the wing section.
- Photos of the current wire bundles in the mix bay.
- Photos for the installation of an electrical junction box, up to a 9 x 6 x 6 inch area.
- Photos from both inside the aircraft fuselage showing the wire routing and pressure vessel penetration.

(4) Leading Edge

- Photos of the FQIS connectors on the front spar for all fuel tanks.
- Photos of the front spar from the reserve tank to the center tank. Photos should show tubing installations, existing wire harnesses, pneumatic ducts, etc.
- Photos of areas between the engine struts, outboard of engine 1 and 4, and between the inboard strut and side of body with a free 9 x 3 x 5 inch accessible area. New FQIS wire routing should have a minimum of 2 inch separation from existing wires, a new location for FQIS spar penetration connectors may be necessary.
- Photos of the front spar and seal ribs with in the strut area with the access panels removed.

(5) Wing to Body (Un-Pressurized Wire Penetrations)

- Photos of the existing wire bundle penetrations through the pressure vessel and a 3 foot radius area around the existing wire bundle penetrations in the wing to body fairing (view from the front spar looking inboard).

(6) Fuel Tanks (Non-Explosion Proof Equipment Is Generally Not Allowed Inside Fuel Tanks)

- Photos of the FQIS probes and the wiring for the probes.
- Photos along the wiring to the spar penetration.
- Photos of the internal tank structure and plumbing.

If, while accomplishing the survey, any discrepancy with the structure, fuel system, or other systems is found, repairs must be accomplished prior to further flight in accordance with this AD.

Issued in Renton, Washington, on October 12, 2007.
Stephen P. Boyd,
Assistant Manager, Transport Airplane Directorate, Aircraft Certification Service.
[FR Doc. 07-5635 Filed 11-9-07; 8:45 am]