[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0785; Product Identifier 2020-NM-063-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for all The Boeing Company Model 747 airplanes and Model 767 airplanes. This proposed AD was prompted by a report of an un-commanded fuel transfer between the main and center fuel tanks. This proposed AD would prohibit operation of an airplane with any inoperative refuel valve (fueling shut-off valve) secured in the open position. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to https://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: 202-493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-0785; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Jeffrey Rothman, Aerospace Engineer, Propulsion Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98190; phone and fax: 206-231-3558; jeffrey.rothman@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to participate in this rulemaking by submitting written comments, data, or views about this proposal. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should submit only one copy of the comments. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2020-0785; Product Identifier 2020-NM-063-AD” at the beginning of your comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, the FAA will consider all comments received by the closing date for comments. The FAA will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. The FAA may change this NPRM because of those comments.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to the person identified in the FOR FURTHER INFORMATION CONTACT section. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Discussion

The FAA has received a report of a flight diversion due to an un-commanded fuel transfer between the main and center fuel tanks. Following the flight, the operator

discovered that a significant amount of fuel had migrated from the left main tank to the center tank. This condition was determined to be created by applying the Master Minimum Equipment List (MMEL)/Dispatch Deviation Guide (DDG) relief for inoperative refuel valves (fueling shut-off valves) secured in the "open" position in the main and center fuel tanks.

During investigation of the event, the operator's maintenance personnel restored all fueling shut-off valves to their normal configuration (closed). The system was tested, and it was confirmed that the fuel migration stopped.

Multiple refuel valves secured in the "open" position can result in un-commanded fuel transfer between tanks, which adversely affects the airplane's center of gravity, aerodynamic drag, and fuel economy. Fuel exhaustion may occur due to a combination of increased trim drag (due to unmitigated fuel imbalance) and the unavailability of trapped fuel due to a fully depleted main tank defeating the center tank fuel scavenge system.

The FAA is proposing this AD to address multiple refuel valves secured in the "open" position via MMEL dispatch allowance, which allows un-commanded fuel transfer between fuel tanks. This condition, if not addressed, could result in a fuel exhaustion event.

FAA's Determination

The FAA is proposing this AD because the agency evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would prohibit operation of an airplane with multiple refuel valves secured in the "open" position.

MMEL Revisions

This proposed AD refers to items in Sections 28-20 and 28-21 of the MMEL[1]; those items may also be included in an operator's FAA-approved minimum equipment list (MEL). This proposed AD would prohibit operation of the airplane under conditions currently allowed by those items in the MMEL. The FAA plans to revise the MMEL to remove those items in a future revision; operators would then be required to also remove those items from their existing FAA-approved MEL.

Costs of Compliance

The FAA estimates that this proposed AD would affect 750 airplanes of U.S. registry.

The FAA has determined that revising the operator's existing FAA-approved MEL takes an average of 90 work-hours per operator, although the agency recognizes that this number may vary from operator to operator. Since operators typically incorporate MEL changes for their affected fleet(s), the FAA has determined that a per-operator estimate is more accurate than a per-airplane estimate. Therefore, the FAA estimates the average total cost per operator to be $7,650 (90 work-hours x $85 per work-hour).

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.

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[1] The MMEL items can be found in the applicable FAA-approved MMEL: Boeing 747 B-747-100/200/300/SP SERIES MMEL, Revision 35, dated April 25, 2014; Boeing 747 B-747-400 LCF MMEL, Revision 3, November 7, 2014; Boeing 747 B-747-400, B-747-400D, B-747-400F MMEL, Revision 32, dated December 27, 2018; Boeing 747-8 MMEL, Revision 7, dated August 25, 2017; and Boeing 767 MMEL, Revision 39, dated October 26, 2018; which can be found on the Flight Standards Information Management System (FSIMS) website, https://fsims.faa.gov/PICResults.aspx?mode=Publication&doctype=MMELByModel.

Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is 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

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, 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.

List of Subjects in 14 CFR Part 39

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

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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 airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2020-0785; Product Identifier 2020-NM-063-AD.

(a) Comments Due Date

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all The Boeing Company airplanes, certificated in any category, identified in paragraphs (c)(1) and (2) of this AD.

(1) Model 747-100, -100B, -100B SUD, -200B, -200C, -200F, -300, -400, -400D, -400F, 747SR, 747SP, -8F, and -8 series airplanes.

(2) Model 767-200, -300, -300F, -400ER, and -2C series airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 28, Fuel.

(e) Unsafe Condition

This AD was prompted by a report of an un-commanded fuel transfer between the main and center fuel tanks. The FAA is issuing this AD to address multiple refuel valves secured in the "open" position via Master Minimum Equipment List (MMEL) dispatch allowance, which allows un-commanded fuel transfer between fuel tanks. This condition could result in a fuel exhaustion event.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Conditions for Prohibited Operation

No later than 60 days after the effective date of this AD: Operation of an airplane with any inoperative refuel valve (fueling shut-off valve) secured in the open position is prohibited.

(h) MMEL Items

The MMEL items specified in paragraphs (h)(1) through (6) of this AD are affected by this prohibition.

(1) For Model 747-100, -200, and -300 series airplanes: The following "Pressure Fueling System" items.

(i) MMEL Item 28-20 2), "Main Tank 1 and 4 Refueling Valves."

(ii) MMEL Item 28-20 3), "Main Tank 2 and 3 Refueling Valves."

(iii) MMEL Item 28-20 4), "Center Tank Refueling Valves.

(iv) MMEL Item 28-20 5), "Reserve Tank 1 and 4 Refueling Valves."

(v) MMEL Item 28-20 6), "Reserve Tank 2 and 3 Refueling Valves."

(2) For Model 747-400LCF series airplanes: MMEL Item 28-21-1 1), "Refuel Valves," second dispatch case with refueling valves inoperative open.

(3) For Model 747-400 series airplanes: MMEL Item 28-21-1 1), "Refuel Valves," first dispatch case with refueling valves inoperative open.

(4) For Model 747-8 series airplanes: MMEL Item 28-21-01-01-01A, "Refuel Valves,"

(5) For Model 767 series airplanes: MMEL Item 28-21-01-01B, "Fuel Shutoff Valves."

(6) For Model 767-2C/KC-46 airplanes: The following "Pressure Fueling System" items.

(i) MMEL Item 28-21-01-01E, "Main Tank Shutoff Valve Inoperative Open."

(ii) MMEL Item 28-21-01-01F, "Center Tank Shutoff Valve Inoperative Open."

Note 1 to paragraph (h): The MMEL items specified in paragraph (h) of this AD can be found in the applicable FAA-approved MMEL: Boeing 747 B-747-100/200/300/SP SERIES MMEL, Revision 35, dated April 25, 2014; Boeing 747 B-747-400 LCF MMEL, Revision 3, November 7, 2014; Boeing 747 B-747-400, B-747-400D, B-747-400F MMEL, Revision 32, dated December 27, 2018; Boeing 747-8 MMEL, Revision 7, dated August 25, 2017; and Boeing 767 MMEL, Revision 39, dated October 26, 2018; which can be found on the Flight Standards Information Management System (FSIMS) website, https://fsims.faa.gov/PICResults.aspx?mode=Publication&doctype=MMELByModel.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local

Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (j) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by The Boeing Company Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO Branch, FAA, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(j) Related Information

For more information about this AD, contact Jeffrey Rothman, Aerospace Engineer, Propulsion Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98190; phone and fax: 206-231-3558; jeffrey.rothman@faa.gov.

Issued on August 21, 2020.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,
Compliance & Airworthiness Division,
Aircraft Certification Service.
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