[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0615; Directorate Identifier 2007-NM-352-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Supplemental notice of proposed rulemaking (NPRM); reopening of comment period.

SUMMARY: We are revising an earlier proposed airworthiness directive (AD) for all The Boeing Company Model 757 airplanes. That NPRM proposed to require repetitive operational tests of the engine fuel suction feed of the fuel system, and other related testing if necessary. That NPRM was prompted by reports of two in-service occurrences on Model 737-400 airplanes of total loss of boost pump pressure of the fuel feed system, followed by loss of fuel system suction feed capability on one engine, and in-flight shutdown of the engine. This action revises that NPRM by proposing to require repetitive operational tests and corrective actions if necessary. We are proposing this supplemental NPRM to detect and correct loss of the engine fuel suction feed capability of the fuel system, which, in the event of total loss of the fuel boost pumps, could result in dual engine flameout, inability to restart the engines, and consequent forced landing of the airplane. Since these actions impose an additional burden over that proposed in the previous NPRM, we are reopening the comment period to allow the public the chance to comment on these proposed changes.

DATES: We must receive comments on this supplemental NPRM 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 http://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: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet https://www.myboeingfleet.com. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

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 proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Sue Lucier, Aerospace Engineer, Propulsion Branch, ANM-140S, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6438; fax: 425-917-6590; email: suzanne.lucier@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2008-0615; Directorate Identifier 2007-NM-352-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We issued an NPRM to amend 14 CFR part 39 to include an AD that would apply to all The Boeing Company Model 757 airplanes. That NPRM published in the Federal Register on June 6, 2008 (73 FR 32256). That NPRM proposed to require repetitive operational tests of the engine fuel suction feed of the fuel system, and other related testing if necessary, according to a method approved the FAA.

Actions Since Previous NPRM (73 FR 32256, June 6, 2008) was Issued

Since we issued the previous NPRM (73 FR 32256, June 6, 2008), we have received comments from operators indicating a high level of difficulty performing the

actions in the previous NPRM during maintenance operations. The new service information referenced in this supplemental NPRM addresses these issues.

Relevant Service Information

We reviewed Boeing Alert Service Bulletin 757-28A0131, dated May 4, 2012. This service information describes procedures for repetitive operational tests of the engine fuel suction feed of the fuel system, and corrective actions if necessary. The corrective actions include isolating the cause of any leakage and repairing the leak.

Comments

We gave the public the opportunity to comment on the previous NPRM (73 FR 32256, June 6, 2008). The following presents the comments received on the previous NPRM and the FAA's response to each comment.

Request to Withdraw the Previous NPRM (73 FR 32256, June 6, 2008)

American Airlines (AAL) asked that we withdraw the previous NPRM (73 FR 32256, June 6, 2008). AAL recommended that a detailed review of the applicable system safety assessment (SSA) and failure mode and effects analysis (FMEA) be done for the fuel system on Model 757 airplanes. AAL stated that the fuel system, while similar in some design aspects to the fuel system on Model 737-400 airplanes on which the unsafe condition occurred, is sufficiently different that the probability of a similar failure is within the acceptable level of safety required for certification. AAL noted that there is a significant difference in the SSA and FMEA; specifically, all the wing fuel pump relays of the Model 757 airplane are powered by one leg of the three phase 115 volt alternating current (VAC) power provided to the respective pump, while the fuel cross-feel valve is powered by the battery direct current (DC) bus. AAL added that the wing fuel pump relays and fuel cross-feed valve are both supplied by DC bus power on Model 737 airplanes. Northwest Airlines (NWA) stated that we should explain what caused the

failures that resulted in the previous NPRM, and noted that failure analysis could dictate a different action.

We do not agree with the request to withdraw the previous NPRM (73 FR 32256, June 6, 2008), because, together with the manufacturer, we have evaluated this issue and determined it to be an important safety concern. Although the fuel system on Model 757 airplanes differs with respect to the engine fuel feed system design, service data of transport category airplanes indicates that multi-engine flameouts have generally resulted from a common cause, such as fuel mismanagement, crew action that inadvertently shut off the fuel supply to the engines, exposure to common environmental conditions, or engine deterioration on all engines of the same type. Successful in-flight restart of the engines is dependent on adequate fuel being supplied to the engines, solely through engine suction fuel feed. Deterioration of the fuel plumbing system can lead to line (vacuum) losses, reducing the engine fuel suction feed capability; therefore, directed maintenance is necessary to ensure this system is functioning correctly in order to maintain continued safe flight of the airplane. We have not changed the supplemental NPRM in this regard.

Request to Incorporate Certification Maintenance Requirement (CMR) Task into the Maintenance Program Instead of Issuing an NPRM (73 FR 32256, June 6, 2008)

AAL asked that instead of issuing an NPRM, a new or revised CMR task be issued for incorporation into the maintenance program. AAL stated that, since there is no modification or terminating action for the previous NPRM (73 FR 32256, June 6, 2008), the test should not be mandated. AAL also stated that the requirements in the previous NPRM should not be addressed as an AD. AAL added that the CMR would demonstrate proof of analysis, and provide a best-fit solution for that analysis; i.e., an effective and feasible safety task, and the correct interval to match the effectivity of the task.

We do not agree with the request to issue a new or revised CMR task. CMRs are developed by the Certification Maintenance Coordination Committee (CMCC) during the

type certification process. The CMCC is made up of manufacturer representatives (typically maintenance, design, and safety engineering personnel), operator representatives designated by the Industry Steering Committee chairperson, FAA Aircraft Certification Office specialists, and the Maintenance Review Board (MRB) chairperson. CMRs developed during this process become a part of the certification basis of the airplane upon issuance of the type certificate. We do not have a process for convening the CMCC outside of the type certification process; based on this, the CMR is not an option for replacing this AD. Therefore, if the airworthiness limitation items (ALIs) were not in the maintenance program at the time of initial certification, an AD is required to make the ALI task a required action. We have not changed the supplemental NPRM in this regard.

Request to Include Corrective Action

Continental Airlines (CAL) asked that the related testing language specified in paragraph (f) of the previous NPRM (73 FR 32256, June 6, 2008) be changed. CAL stated that it should specify correcting discrepancies before further flight if the engine fails the operational test. CAL added that the corrective actions should be done in accordance with the procedures in the "Right (Left) Engine Fails the Suction Feed Test" procedure in the Boeing 757 Fault Isolation Manual (FIM) 28-22-00/101.

We agree with the request to include corrective actions in paragraph (g) of this supplemental NPRM (paragraph (f) of the previous NPRM (73 FR 32256, June 6, 2008)). Since the previous NPRM does not include corrective actions, we have changed paragraph (g) of this supplemental NPRM to specify doing all applicable corrective actions in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 757-28A0131, dated May 4, 2012.

Requests to Revise Compliance Time

CAL and NWA asked that we extend the repetitive operational test interval required by paragraph (f) of the previous NPRM (73 FR 32256, June 6, 2008). CAL

stated that a re-evaluation of the proposed repetitive interval limit after doing the initial inspection should be done, since its service history has revealed no reported engine flameout events or related operational discrepancies. CAL asked that the repetitive interval be extended to repeating the inspection during a normal maintenance 2C-check or within 8,000 flight cycles, whichever occurs first. NWA stated that the previous NPRM does not indicate how the initial and repetitive intervals were determined. NWA asked that the repetitive interval be changed to up to 10,000 flight hours to fit the mandated tests into its maintenance program C-check.

We do not agree with the requests that the compliance time be extended. In developing an appropriate compliance time for the actions specified in paragraph (g) of this supplemental NPRM (paragraph (f) of the previous NPRM (73 FR 32256, June 6, 2008)), we considered the safety implications and normal maintenance schedules for the timely accomplishment of the specified actions. We have determined that the proposed compliance time will ensure an acceptable level of safety and allow the actions to be done during scheduled maintenance intervals for most affected operators. However, affected operators may request an alternative method of compliance (AMOC) to request an extension of the repetitive operational test interval under the provisions of paragraph (h) of this supplemental NPRM by submitting data substantiating that the change would provide an acceptable level of safety. We have not changed the supplemental NPRM in this regard.

Requests to Allow the Use of Later Revisions of the Maintenance Documents

British Airways (BA), CAL, and United Airlines (UAL), asked that we allow using later revisions of the maintenance documents, because they could be revised over time and would require frequent requests for AMOCs.

We do not agree with the request. Allowing later revisions of service documents in an AD is not allowed by the Office of the Federal Register regulations for approving

materials incorporated by reference. Affected operators may, however, request approval to use a later revision of referenced service information as an AMOC in accordance with the procedures specified in paragraph (h) of this supplemental NPRM. We have not changed the supplemental NPRM in this regard.

Request to Clarify if Engine Fuel Suction Feed Test is Allowed in Lieu of the Operational Test

BA asked that we clarify that the engine fuel suction feed test procedure in the Boeing 757 Maintenance Planning Data (MPD) document is an option for performing the operational test in the previous NPRM (73 FR 32256, June 6, 2008). BA asked that we consider adding the engine fuel suction feed manifold leak-test procedure as an alternative procedure to performing the operational test specified in Section 28-22-00 of the Boeing 757 Aircraft Maintenance Manual (AMM).

We agree to provide clarification. The manifold test (Task 28-22-00-710-801) is not equivalent to the operational test (Task 28-22-00-710-802) for the purposes of this proposed action. The positive internal fuel line pressure applied during the manifold test does not simulate the same conditions encountered during fuel suction feed (i.e., vacuum), and may mask a failure. Therefore, we have not changed the supplemental NPRM in this regard.

Request to Include Warning Information

CAL suggested that the Boeing service manuals include a critical design configuration control limitation (CDCCL) warning identification statement to alert maintenance personnel of the importance of regulatory compliance, as well as the configuration control requirement. CAL did not include any justification for this request.

We agree that a CDCCL warning statement would serve as direct communication to maintenance personnel that there is an AD associated with certain maintenance actions, but do not find this additional measure necessary to adequately address the unsafe condition. We have made no change to the supplemental NPRM in this regard.

Request to Revise Costs of Compliance Section

NWA stated that the cost estimate specified in the previous NPRM (73 FR 32256, June 6, 2008) is too low, and asked that it be changed. NWA stated that the cost of fuel is not included in the cost estimate and should be included due to the high cost of fuel.

We acknowledge the commenter's request. Although fuel is used during the operational test, we have not received data on the amount of fuel used during the test. In addition, fuel costs vary among operators. Therefore, we do not have definitive data that would enable us to provide a cost estimate for the fuel costs. In any case, we have determined that direct and incidental costs are still outweighed by the safety benefits of the proposed AD. We have made no change to the supplemental NPRM in this regard.

Request to Refer to Boeing 757 MPD, Section 6, Task 28-22-00-5D

BA asked that the previous NPRM (73 FR 32256, June 6, 2008) refer to the Boeing 757 MPD, which contains the repetitive test interval of 1C-check in the MPD task (6,000 flight hours/3,000 flight cycles/18 months). BA added that it currently performs the test at 24-month C-check intervals, and has conducted the test on 71 airplanes since May 2006, with no failures identified.

We do not agree to refer to the Boeing 757 MPD in this supplemental NPRM. As stated previously, Boeing has issued Alert Service Bulletin 757-28A0131, dated May 4, 2012, referred to as the appropriate source of service information for doing the actions proposed in this supplemental NPRM. We have made no change to the supplemental NPRM in this regard.

Request to Remove or Clarify Certain Language in Paragraph (f) of the Previous NPRM (73 FR 32256, June 6, 2008)

NWA asked that the last sentence in paragraph (f) of the previous NPRM (73 FR 32256, June 6, 2008) be removed or clarified. NWA stated that the intent of that sentence is unclear, and is reiterated as follows: "Thereafter, except as provided in paragraph (h) of this AD, no alternative procedure or repeat test intervals will be allowed." NWA added

that it is standard practice that once an AD is issued, deviation procedures and intervals are not allowed unless approved by requesting an AMOC.

We agree with the commenter that including the subject sentence is redundant; however, that sentence is included in paragraph (g) of this supplemental NPRM (paragraph (f) of the previous NPRM (73 FR 32256, June 6, 2008)) merely as a reminder for operators of standard practices. We have made no change to the supplemental NPRM in this regard.

FAA's Determination

We are proposing this supplemental NPRM because we 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. Certain changes described above expand the scope of the previous NPRM (73 FR 32256, June 6, 2008). As a result, we have determined that it is necessary to reopen the comment period to provide additional opportunity for the public to comment on this supplemental NPRM.

Proposed Requirements of the Supplemental NPRM

This supplemental NPRM revises the previous NPRM (73 FR 32256, June 6, 2008) by proposing repetitive operational tests of the engine fuel suction feed of the fuel system, and corrective actions if necessary.

Costs of Compliance

We estimate that this proposed AD would affect 673 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Cost per product	Cost on U.S. operators
Operational Test	Up to 6 work hours X $85 per hour = $510 per engine, per test	Up to $2,040, per test	Up to $343,230, per test

We have received no definitive data that would enable us to provide a cost estimate for the on-condition actions specified in this proposed AD.

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 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) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska, and

(4) 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-2008-0615; Directorate Identifier 2007-NM-352-AD.

(a) Comments Due Date

We 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 Model 757-200, -200PF, -200CB, and -300 series airplanes, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 2800, Aircraft Fuel System.

(e) Unsafe Condition

This AD was prompted by reports of two in-service occurrences on Model 737-400 airplanes of total loss of boost pump pressure of the fuel feed system, followed by loss of fuel system suction feed capability on one engine, and in-flight shutdown of the engine. We are issuing this AD to detect and correct loss of the engine fuel suction feed capability of the fuel system, which in the event of total loss of the fuel boost pumps could result in dual engine flameout, inability to restart the engines, and consequent forced landing of the airplane.

(f) Compliance

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

(g) Operational Test and Corrective Actions

Within 7,500 flight hours or 36 months after the effective date of this AD, whichever occurs first: Perform an operational test of the engine fuel suction feed of the fuel system, and do all applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 757-28A0131, dated May 4, 2012. Do all applicable corrective actions before further flight. Repeat the operational test thereafter at intervals not to exceed 7,500 flight hours or 36 months, whichever occurs first. Thereafter, except as provided in paragraph (h) of this AD, no alternative procedures or repeat test intervals will be allowed.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), 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 ACO, send it to the attention of the person identified in the

Related Information section 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.

(i) Related Information

(1) For more information about this AD, contact Sue Lucier, Aerospace Engineer, Propulsion Branch, ANM-140S, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6438; fax: 425-917-6590; email: suzanne.lucier@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet https://www.myboeingfleet.com. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on October 22, 2012.

Kalene C. Yanamura,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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