[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0620; Directorate Identifier 2007-NM-357-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 certain The Boeing Company Model 747-400, -400D, and -400F series 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; e-mail: 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-2008-0620; Directorate Identifier 2007-NM-357-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 certain The Boeing Company Model 747-400, -400D, and -400F series airplanes. That NPRM published in the Federal Register on June 6, 2008 (73 FR 32248). That NPRM proposed to require performing 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 32248, June 6, 2008) was Issued

Since we issued the previous NPRM (73 FR 32248, 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.

Relevant Service Information

We reviewed Boeing Alert Service Bulletin 747-28A2330, dated April 2, 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 32248, June 6, 2008). The following presents the comments received on the previous NPRM and the FAA's response to each comment.

Requests to Issue Certification Maintenance Requirement (CMR) Task Instead of NPRM

Japan Airlines (JAL) and Qantas Airways Ltd. (Qantas) requested that we withdraw the previous NPRM (73 FR 32248, June 6, 2008). JAL asked that instead of issuing an NPRM, we issue a CMR task. JAL stated that the requirements in the previous NPRM should not be addressed as an AD. JAL did not provide a reason for this request.

We do not agree with the commenters' request. 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; 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. Regardless, the airworthiness limitations (ALI) were not in the maintenance program at the time the previous NPRM was issued; therefore, an AD is required to accomplish the ALI task.

Qantas stated that maintenance review board report (MRBR) Task 28-022-04 was added to the Model 747-400 MRBR in May 2006, and contains failure effect category (FEC) 8, meaning that it is a hidden safety derived task. Qantas added that this task has been adequately addressed in the MRBR and related maintenance planning document (MPD). Qantas stated that there are over 200 FEC 5 and 8 safety-related tasks in the Model 747-400 MRBR which could result in adverse safety outcomes if not addressed, and most of these tasks are not the subject of ADs. Qantas added that issuing the previous NPRM (73 FR 32248, June 6, 2008) will generate an added administrative burden on operators, with no benefit derived. Qantas concluded that the previous NPRM is not necessary, but added that if the ACO does not agree, consideration should be given to the CMR approach.

We do not agree with the commenter's request. We have determined that the latent failure of the fuel system suction feed system identified in this AD is an unsafe condition that requires issuance of an AD. In reference to FEC 5 and 8 safety-related tasks in Section 5.4 of FAA Advisory Circular 121-22B, "Maintenance Review Board Report (MRBR) Maintenance Type Board, and OEM/TCH Inspection Program Procedures," dated October 29, 2010; FAA Advisory Circular 121-22B, Section 5.4, specifies "Operators of the aircraft type should implement the Initial MRBR in accordance with established procedures. The MRBR requirements are not an operator maintenance program. After FAA approval, the requirements become a baseline or framework, around which each operator can develop its own individual aircraft maintenance program. The FAA recommends the operator's program incorporate MRBR

revisions associated with type design changes. . .” This task was not included in the initial MRBR for Model 747-400 airplanes as a safety-related task; therefore, incorporating the FEC 8 task would be an option for operators, but not a requirement until the AD is published. We have made no change to the supplemental NPRM in this regard.

Requests to Revise Compliance Time

Lufthansa Technik AG (Lufthansa) and KLM Royal Dutch Airlines (KLM) asked that we change the compliance time for the initial and repetitive operational test interval required by paragraph (f) of the previous NPRM (73 FR 32248, June 6, 2008). KLM asked that we change the compliance time of “30,000 flight hours” to “45,000 flight hours or 1 D.” KLM stated that if an aircraft does not pass the operational test then a tank entry is required, which has an impact on the currently scheduled downtime requirements for the C-checks. Lufthansa asked that we change the compliance time to “35,000 flight hours.” Lufthansa stated that it is performing the operational test at a 1-D interval that corresponds to up to 33,000 flight hours.

We do not agree with the requests that the compliance time be changed. In developing an appropriate compliance time for the actions specified in paragraph (f) of this supplemental NPRM, 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 AD by submitting data substantiating that the change would provide an acceptable level of safety. We have made no change to the supplemental NPRM in this regard.

Request to Clarify the Reason for the Unsafe Condition

Boeing and Northwest Airlines (NWA) asked that we clarify the reason for the unsafe condition identified in the previous NPRM (73 FR 32248, June 6, 2008), by including all relevant information. Boeing stated that the description of a report of in-service occurrences of loss of fuel system suction feed capability results from reports of two in-service engine flameout events while operating on suction feed with undetected air leak failures on Model 737-400 airplanes. Boeing added that there are no known reports of any engine flameout related events in the Model 747 fleet. Boeing noted that undetected air leaks could exist and the subject maintenance procedure is a proactive measure to ensure engine flameout will not occur due to air leaks while on suction feed operation.

NWA asked for an explanation of what caused the failure that resulted in issuance of the previous NPRM (73 FR 32248, June 6, 2008), and stated that failure analysis could indicate different action than the one proposed. NWA added that the events occurred on twin engine airplanes, and requested that we provide the basis for the conclusion that Model 747-400 airplanes have the same or greater risk for this unsafe condition to occur as twin engine airplanes.

We agree that the reason for the unsafe condition should be clarified for the reasons provided. We have changed the language in the reason for the unsafe condition identified in the Summary section and paragraph (e) of this supplemental NPRM to specify that the previous NPRM (73 FR 32248, June 6, 2008) ". . . 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." Also, we have determined that Model 747-400, -400D, and -400F series airplanes are affected by the identified unsafe condition. The cause of the failure is identified in the failure analysis

done by Boeing, and incorporates a four engine airplane in place of a twin engine airplane. 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 32248, 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 AD. 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 32248, 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 32248, 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 79 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	3 work hours X $85 per hour = $255 per engine, per test	$1,020	$80,580, 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 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-2008-0620; Directorate Identifier 2007-NM-357-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 The Boeing Company Model 747-400, -400D, and -400F series airplanes, certificated in any category; as identified in Boeing Alert Service Bulletin 747-28A2330, dated April 2, 2012.

(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 30,000 flight hours after the effective date of this AD: Perform an operational test of the engine fuel suction feed of the fuel system, and all applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-28A2330, dated April 2, 2012. Do all applicable corrective actions before further flight. Repeat the operational test thereafter at intervals not to exceed 30,000 flight hours. 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 e-mailed 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; e-mail: 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 June 27, 2012.

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

[FR Doc. 2012-16668 Filed 07/06/2012 at 8:45 am; Publication Date: 07/09/2012]