[Federal Register: September 13, 2010 (Volume 75, Number 176)]
[Rules and Regulations]
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[DOCID:fr13se10-2]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2010-0037; Directorate Identifier 2009-NM-240-AD; Amendment 39-16431; AD 2010-19-03]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Model 737-700 (IGW) Series Airplanes Equipped With Auxiliary Fuel Tanks Installed in Accordance With Configuration 3 of Supplemental Type Certificate ST00936NY

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Model 737-700 (IGW) series airplanes. This AD requires deactivation or modification of PATS Aircraft, LLC, auxiliary fuel tanks. This AD results from fuel system reviews conducted by the manufacturer. We are issuing this AD to prevent the potential of ignition sources inside fuel tanks, which, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane.

DATES: This AD is effective October 18, 2010.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of October 18, 2010.

ADDRESSES: For service information identified in this AD, contact DeCrane Aerospace, PATS Aircraft Systems, 21652 Nanticoke Avenue, Georgetown, Delaware 19947; telephone 302-253-6157; fax 302-855-0153; e-mail giuseppecoppola@ decraneaerospace.com; Internet http://www.decraneaerospace.com.

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: Mazdak Hobbi, Aerospace Engineer, Propulsion and Services Branch, ANE-173, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7330; fax (516) 794-5531.

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 certain Model 737-700 (IGW) series airplanes. That NPRM was published in the Federal Register on February 12, 2010 (75 FR 6865). That NPRM proposed to require deactivation or modification of PATS Aircraft, LLC, auxiliary fuel tanks.

Comments

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

Request To Clarify Configuration 3 Airplanes Affected

Global Jet asks what has changed regarding Configuration 3 airplanes affected by the actions in the NPRM. Global Jet states that it received an email from the FAA in May 2008, which specified that no further action was required for its Configuration 3 airplanes. Global Jet asks why it was in compliance with SFAR 88 last year and is not in compliance this year, although the airplane configuration has not changed in any way. PATS recommends clarifying that although Configuration 3 airplanes were excluded from AD 2008-22-01, those airplanes are not in compliance with the SFAR 88 regulations.

We acknowledge the commenters' concerns and provide the following clarification. We have received new information from a secondary review of Configuration 3 airplanes and have determined that they are not compliant with the SFAR 88 regulations. Therefore, those airplanes are included in the applicability of this AD. We have made no change to the AD in this regard.

Request To Refer to AD 2008-22-01

PATS Aircraft, LLC (PATS), asks that we include a reference to the requirements of AD 2008-22-01, amendment 39-15696 (73 FR 62872, October 22, 2008), in the NPRM. PATS states that the information specified in the NPRM corrects an error in AD 2008-22-01, which incorrectly identifies Configuration 3 airplanes as being compliant with Special Federal Aviation Regulation No. 88 (SFAR 88) requirements. PATS notes that this is incorrect since Configuration 3 airplanes require incorporation of DeCrane Aerospace 737-700 IGW Service Bulletins ST00936NY-D-28-SB-001–K, dated August 25, 2008; and ST00936NY-D-28-SB-021–K, dated January 8, 2009. PATS adds that an alternative method of compliance (AMOC) was issued for AD 2008-22-01 to approve the service bulletins for Configuration 3 airplanes.

We acknowledge the commenter's concern and provide the following. The NPRM was issued, in part, to correct the error in AD 2008-22-01. That AD applies to various transport category airplanes equipped with auxiliary fuel tanks installed in accordance with certain supplemental type certificates, and requires deactivation of PATS Aircraft, LLC, auxiliary fuel tanks. AD 2008-22-01 does not require the modification specified in the subject service information; therefore, since Configuration 3 airplanes are included in the applicability of this AD, it is not necessary to reference the requirements of AD 2008-22-01. We have not changed the AD in this regard.

Request To Include Previously Issued Service Information

PATS recommends including the DeCrane/PATS service bulletins specified in Table 1 of this AD as acceptable sources of service information for accomplishing the actions specified in the NPRM. PATS states that the FAA issued an AMOC for AD 2008-22-01 approving this service information for accomplishing the actions on Model 737-700 (IGW) airplanes with STC ST00936NY-D, Configuration 3.

We agree with the commenter for the reasons provided. We have added a new paragraph (h) to this AD to give credit for using previous issues of the DeCrane/PATS service information to accomplish the specified actions.

Request To Change the Description of the Auxiliary Fuel Tanks

PATS points out that the description of the PATS auxiliary fuel tank is incorrect in the section of the NPRM titled "Supplemental Type Certificates (STCs) for PATS Aircraft, LLC, Auxiliary Fuel Tanks." PATS states that it has never designed or certified a "box-and-bladder-type" auxiliary fuel tank, and provides the following description of the PATS auxiliary fuel tank system.

PATS' typical auxiliary fuel system (AFS) consists of several interconnected auxiliary fuel cells located in the aircraft's cargo holds. The cells are constructed of aluminum alloy with double walls and mounted on longitudinal rails attached to the aircraft's frame. The inner walls serve as the fuel storage cell, and the outer walls serve as the fuel and fume-proof shroud around the cell. The two walls are separated by an open-weave honeycomb structure bonded to the walls. The cells resemble aircraft cargo containers. The individual cells are usually arranged in two groups within the forward and aft lower cargo holds. These forward and aft fuel cell groups operate independently as two separate tanks.

We infer that the commenter requests we revise the description of the STC. We agree that the description in the NPRM requires further clarification. However, that section of the preamble of the NPRM does not reappear in the final rule; therefore, no change to the final rule has been made. However, we have provided the above clarification to the section of the NPRM titled "Supplemental Type Certificates (STCs) for PATS Aircraft, LLC, Auxiliary Fuel Tanks" as suggested by PATS.

Requests To Extend Compliance Time

Boeing, Global Jet (Global Jet) Luxembourg, and Qantas Airways (Qantas) ask that the compliance time of 45 days for accomplishing the actions specified in the NPRM be extended. Boeing and Global Jet state that the impact of the proposed compliance time would be disproportionate to the risk, and add that there is insufficient capacity in the available overhaul facilities to accomplish the retrofit within 45 days after the effective date of the AD. Boeing notes that there are similar risks in other ADs and recommends using risk-analysis to determine a compliance time. Qantas states that we should permit a longer compliance time for airplanes modified in accordance with Revision G (or later) of DeCrane Aerospace 737-700 IGW Service Bulletin ST00936NY-D-28-SB-001, or ST00936NY-D-28-SB-021. Qantas suggests the compliance time be extended to 12 months after the effective date of the AD to allow accomplishing the actions during regularly scheduled maintenance.

We agree with the commenters. We have extended the compliance time specified in paragraph (g) of this AD to 6 months after the effective date of the AD to coincide with the extension given in AMOCs for AD 2008-22-01. We find that extending the compliance time to 6 months will not adversely affect safety, and will allow the modification to be performed during regularly scheduled maintenance at a base where special equipment and trained maintenance personnel will be available if necessary.

Request To Clarify Levels of Configuration

PATS asks that we clarify the configuration levels on Configuration 3 airplanes and recommends the section of the NPRM titled "Supplemental Type Certificates (STCs) for PATS Aircraft, LLC, Auxiliary Fuel Tanks" be changed to include those levels.

We provide the following clarification. Configuration 3 airplanes include 3-A, 3-B, 3-C, 3-D, 3-E, 3-F, 3-G, 3-H, 3-J, 3-K, 3-M, 3-N, 3-P, 3-R, 3-S, 3-T, 3-U, 3-V, and 3-W, as listed on STC ST00936NY-D. However, since the section of the NPRM referenced by the commenter does not reappear in the final rule, no change to this AD is necessary in this regard.

Request To Increase Cost Estimate in Costs of Compliance Section of This AD

Boeing asks that we change the Costs of Compliance section of the NPRM. Boeing states that the economic impact specified in the NPRM fails to account for the total economic costs of compliance. Boeing estimates the costs to be approximately $300,000 for service bulletin parts kits and $120,000 in labor (estimated 1,600 work hours of labor at $75/hour), plus other unplanned costs for air transportation while these airplanes are out of service for the modification. Boeing adds that the cost per airplane would exceed $400,000 even in the most optimistic and efficient modification scenarios.

We agree that the number of work hours required for the modification is higher than our estimate. The estimate in the NPRM only included the costs for deactivation of the auxiliary fuel tanks. Therefore, the cost impact information, below, has been revised to include the cost for accomplishing the modification. The economic analysis, however, is limited only to the cost of actions actually required by the rule. It does not consider the costs of "on-condition" actions (e.g., "repair, if necessary") because, regardless of AD direction, those actions would be required to correct an unsafe condition identified in an airplane and ensure operation of that airplane in an airworthy condition, as required by the Federal Aviation Regulations. We have made no further change to this final rule regarding this issue.

Explanation of Change to AD

We have changed paragraph (g)(1) of this AD to clarify the terminology regarding approval of the deactivation procedures.

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

We estimate that this AD affects 11 airplanes of U.S. registry.

We estimate that it will take about 250 work-hours per product to comply with the deactivation of the auxiliary fuel tanks. The average labor rate is $85 per work-hour. Required parts will cost about $10,000 per product. Based on these figures, we estimate the cost of the deactivation to the U.S. operators to be $343,750, or $31,250 per product.

We estimate that it will take between 90 and 650 work-hours per product, depending on airplane configuration, to comply with the modification of the auxiliary fuel system. The average labor rate is $85 per work-hour. Required parts will cost between $182,505 and $228,131 per product. Based on

these figures, we estimate the cost of the modification to U.S. operators to be between $2,091,705 and $3,117,191, or between $190,155 and $283,381 per product.

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:

2010-19-03 The Boeing Company: Amendment 39-16431. Docket No. FAA-2010-0037; Directorate Identifier 2009-NM-240-AD.

Effective Date

(a) This airworthiness directive (AD) is effective October 18, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to The Boeing Company Model 737-700 (IGW) series airplanes, certificated in any category; equipped with auxiliary fuel tanks installed in accordance with Configuration 3 of Supplemental Type Certificate ST00936NY.

Subject

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

Unsafe Condition

(e) This AD results from fuel system reviews conducted by the manufacturer. The Federal Aviation Administration is issuing this AD to prevent the potential of ignition sources inside fuel tanks, which, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane.

Compliance

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Prevent Usage of Auxiliary Fuel Tanks or Modify Auxiliary Fuel System

(g) Within 6 months after the effective date of this AD: Accomplish the requirements specified in paragraph (g)(1) or (g)(2) of this AD.

(1) Deactivate the auxiliary fuel tanks, in accordance with a deactivation procedure approved by the Manager, New York Aircraft Certification Office (ACO). For any deactivation procedure to be approved, it must be shown that following deactivation, any auxiliary tank component that remains on the airplane must be secured and must be shown to meet the certification basis of the airplane. Deactivation must not result in the need for additional instructions for continued airworthiness.

Note 1: Appendix A of this AD provides criteria that should be included in the deactivation procedures. The proposed deactivation procedures should be submitted to the Manager, New York ACO, as soon as possible to ensure timely review and approval.

Note 2: For technical information, contact Mazdak Hobbi, Aerospace Engineer, Propulsion and Services Branch, ANE-173, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone 516-228-7330; fax 516-794-5531.

(2) Modify the auxiliary fuel system by doing all the applicable actions in accordance with the Accomplishment Instructions of DeCrane Aerospace 737-700 IGW Service Bulletin ST00936NY-D-28-SB-001–K, dated August 25, 2008; and DeCrane Aerospace 737-700 IGW Service Bulletin ST00936NY-D-28-SB-021–K, dated January 8, 2009.

Credit for Actions Accomplished in Accordance With Previous Service Information

(h) Actions accomplished before the effective date of this AD according to the service information identified in Table 1 of this AD, are considered acceptable for compliance with the corresponding actions specified in paragraph (g)(2) of this AD.

Table 1 – Credit Service Information

Service Bulletin	Revision	Date
DeCrane Aerospace 737-700 IGW ST00936NY-D-28-SB-001_G	G	March 27, 2008
DeCrane Aerospace 737-700 IGW ST00936NY-D-28-SB-001_H	H	May 16, 2008
DeCrane Aerospace 737-700 IGW ST00936NY-D-28-SB-001_J	J	July 24, 2008
DeCrane Aerospace 737-700 IGW ST00936NY-D-28-SB-021_D	D	October 31, 2007
DeCrane Aerospace 737-700 IGW ST00936NY-D-28-SB-021_E	E	December 7, 2007
DeCrane Aerospace 737-700 IGW ST00936NY-D-28-SB-021_F	F	February 7, 2008
DeCrane Aerospace 737-700 IGW ST00936NY-D-28-SB-021_G	G	March 14, 2008
DeCrane Aerospace 737-700 IGW ST00936NY-D-28-SB-021_H	H	July 24, 2008
DeCrane Aerospace 737-700 IGW ST00936NY-D-28-SB-021_J	J	August 25, 2008
DeCrane Aircraft 737-700IGW ST00936NY-28-SB-001_IR	Initial Release	September 3, 2004
DeCrane Aircraft 737-700 IGW ST00936NY-28-SB-001_A	A	September 15, 2004
DeCrane Aircraft 737-700 IGW ST00936NY-28-SB-001_B	B	October 26, 2004
DeCrane Aircraft 737-700 IGW ST00936NY-28-SB-001_C	C	November 4, 2004
PATS Aircraft 737-700 IGW ST00936NY-D-28-SB-001_D	D	August 8, 2007
PATS Aircraft 737-700 IGW ST00936NY-D-28-SB-001_E	E	January 8, 2008
PATS Aircraft 737-700 IGW ST00936NY-D-28-SB-001_F	F	February 5, 2008
PATS Aircraft 737-700 IGW ST00936NY-D-28-SB-021_IR	Initial Release	January 31, 2007
PATS Aircraft 737-700 IGW ST00936NY-D-28-SB-021_A	A	May 17, 2007

PATS Aircraft 737-700 IGW ST00936NY-D-28-SB-021_B	B	July 3, 2007
PATS Aircraft 737-700 IGW ST00936NY-D-28-SB-021_C	C	August 8, 2007

Reporting Requirement

(i) Within 45 days after the effective date of this AD, submit a report to the Manager, New York ACO. The report must include the information listed in paragraphs (i)(1), (i)(2), and (i)(3) of this AD. 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 assigned OMB Control Number 2120-0056.

(1) The airplane registration and operation status.

(2) The usage frequency in terms of total number of flights per year and total number of flights per year for which the auxiliary tank is used.

(3) Method of complying with paragraph (g)(1) of this AD.

Alternative Methods of Compliance (AMOCs)

(j)(1) The Manager, New York ACO, ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office.

(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 principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

Material Incorporated by Reference

(k) You must use DeCrane Aerospace 737-700 IGW Service Bulletin ST00936NY-D-28-SB-001–K, dated August 25, 2008; and DeCrane Aerospace 737-700 IGW Service Bulletin ST00936NY-D-28-SB-021–K, dated January 8, 2009; as applicable; to do the actions required by this AD, 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 DeCrane Aerospace, PATS Aircraft Systems, 21652 Nanticoke Avenue, Georgetown, Delaware 19947; telephone 302-253-6157; fax 302-855-0153; e-mail giuseppecoppola@decraneaerospace.com; Internet http://www.decraneaerospace.com.

(3) You may review copies of the 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.

(4) You may also review copies of the service information that is incorporated by reference 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.

Appendix A

Deactivation Criteria

The auxiliary fuel tank deactivation procedures required by paragraph (g)(1) of this AD should address the following actions.

(1) Permanently drain auxiliary fuel tanks, and clear them of fuel vapors to eliminate the possibility of out-gassing of fuel vapors from the emptied auxiliary tank.

(2) Disconnect all electrical connections from the fuel quantity indication system (FQIS), fuel pumps if applicable, float switches, and all other electrical connections required for auxiliary tank operation, and stow them at the auxiliary tank interface.

(3) Disconnect all pneumatic connections if applicable, cap them at the pneumatic source, and secure them.

(4) Disconnect all fuel feed and fuel vent plumbing interfaces with airplane original equipment manufacturer (OEM) tanks, cap them at the airplane tank side, and secure them in accordance with a method approved by the FAA; one approved method is specified in AC 25-8 Auxiliary Fuel System Installations. In order to eliminate the possibility of structural deformation during cabin decompression, leave open and secure the disconnected auxiliary fuel tank vent lines.

(5) Pull and collar all circuit breakers used to operate the auxiliary tank.

(6) Revise the weight and balance document, if required, and obtain FAA approval.

(7) Amend the applicable sections of the applicable airplane flight manual (AFM) to indicate that the auxiliary fuel tank is deactivated. Remove auxiliary fuel tank operating procedures to ensure that only the OEM fuel system operational procedures are contained in the AFM. Amend the Limitations Section of the AFM to indicate that the AFM Supplement for the STC is not in effect. Place a placard in the flight deck indicating that the auxiliary tank is deactivated. The AFM revisions specified in this paragraph may be accomplished by inserting a copy of this AD into the AFM.

(8) Amend the applicable sections of the applicable flight crew operating manual and airplane maintenance manual to remove auxiliary tank maintenance procedures.

(9) After the auxiliary fuel tank is deactivated, accomplish procedures such as leak checks and pressure checks deemed necessary before returning the airplane to service. These procedures must include verification that the airplane FQIS and fuel distribution systems have not been adversely affected.

(10) Revise the instructions for continued airworthiness, as required, after deactivation.

(11) Include with the operator's proposed procedures any relevant information or additional steps that are deemed necessary by the operator to comply with the deactivation and return the airplane to service.

Issued in Renton, Washington, on September 3, 2010.

Jeffrey E. Duven,

Acting Manager, Transport Airplane Directorate,

Aircraft Certification Service.