

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Part 39**

[Docket No. FAA-2008-0621; Directorate Identifier 2008-NM-015-AD]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737-600, -700, -800, and -900 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Boeing Model 737-600, -700, -800, and -900 series airplanes. This proposed AD would require installation of hot short protector (HSP) support brackets and equipment for the fuel quantity indicating system (FQIS) fuel densitometer and other specified actions as applicable. This proposed AD would also require a revision to the Airworthiness Limitations (AWLs) section of the Instructions for Continued Airworthiness to incorporate AWL No. 28-AWL-07. This proposed AD results from fuel system reviews conducted by the manufacturer. We are proposing this AD to prevent the center tank fuel densitometer from overheating and becoming a potential ignition source inside the center fuel tank, which, in combination with flammable fuel vapors, could result in a center fuel tank explosion and consequent loss of the airplane.

DATES: We must receive comments on this proposed AD by July 24, 2008.

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

FOR FURTHER INFORMATION CONTACT:

Georgios Roussos, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6482; fax (425) 917-6590.

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-2008-0621; Directorate Identifier 2008-NM-015-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

The FAA has examined the underlying safety issues involved in fuel tank explosions on several large transport airplanes, including the adequacy of existing regulations, the service history of airplanes subject to those regulations, and existing maintenance practices for fuel tank systems. As a result of those findings, we issued a regulation titled "Transport Airplane Fuel Tank System Design Review, Flammability Reduction and Maintenance and Inspection Requirements" (66 FR 23086, May 7, 2001). In addition to new airworthiness standards for transport airplanes and new maintenance requirements, this rule included Special Federal Aviation Regulation No. 88 ("SFAR 88,"

Amendment 21-78, and subsequent Amendments 21-82 and 21-83).

Among other actions, SFAR 88 requires certain type design (i.e., type certificate (TC) and supplemental type certificate (STC)) holders to substantiate that their fuel tank systems can prevent ignition sources in the fuel tanks. This requirement applies to type design holders for large turbine-powered transport airplanes and for subsequent modifications to those airplanes. It requires them to perform design reviews and to develop design changes and maintenance procedures if their designs do not meet the new fuel tank safety standards. As explained in the preamble to the rule, we intended to adopt airworthiness directives to mandate any changes found necessary to address unsafe conditions identified as a result of these reviews.

In evaluating these design reviews, we have established four criteria intended to define the unsafe conditions associated with fuel tank systems that require corrective actions. The percentage of operating time during which fuel tanks are exposed to flammable conditions is one of these criteria. The other three criteria address the failure types under evaluation: Single failures, single failures in combination with a latent condition(s), and in-service failure experience. For all four criteria, the evaluations included consideration of previous actions taken that may mitigate the need for further action.

We have determined that the actions identified in this AD are necessary to reduce 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.

Boeing has found that no separation was provided for the fuel quantity indication system (FQIS) wires. A potential hot short of the FQIS lead wire could cause the center fuel tank densitometer to overheat. In situations where the fuel level in the center tank is low, the overheated densitometer could ignite flammable fuel vapors inside the center fuel tank. This condition, if not corrected, could result in a center fuel tank explosion and consequent loss of the airplane.

Other Related Rulemaking

On April 29, 2008, we issued AD 2008-10-10, amendment 39-15516 (73 FR 25986, May 8, 2008), applicable to certain Boeing Model 737-600, -700, -700C, -800, and -900 series airplanes. That AD requires revising the Airworthiness Limitations (AWLs) section of the Instructions for Continued

Airworthiness (ICA) by incorporating new limitations for fuel tank systems to satisfy SFAR 88 requirements. That AD also requires the initial inspection of a certain repetitive AWL inspection to phase in that inspection, and repair if necessary. That AD resulted from a design review of the fuel tank systems. We issued that AD to prevent the potential for ignition sources inside fuel tanks caused by latent failures, alterations, repairs, or maintenance actions, which, in combination with flammable fuel vapors, could result in a fuel tank explosion and consequent loss of the airplane. Incorporating AWL No. 28-AWL-07 into the AWLs section of the ICA in accordance with paragraph (g)(3) of AD 2008-10-10 would terminate the action specified in paragraph (g) of this proposed AD.

Relevant Service Information

We have reviewed Boeing Alert Service Bulletin 737-28A1221, Revision 1, dated November 9, 2007. The service bulletin describes procedures for installing hot short protector (HSP) support brackets and equipment for the

FQIS fuel densitometer and doing other specified actions as applicable. The other specified actions include installing wire bundle and ground stud support brackets, replacing certain wire bundle support brackets with new brackets, installing new support clamps and wire bundles, and rerouting certain wire bundles.

We have also reviewed Revision March 2007 R2 of Section 9 of the Boeing 737-600/700/800/900 Maintenance Planning Data (MPD) Document, D626A001-CMR (hereafter referred to as "the MPD"). Subsection F, "AIRWORTHINESS LIMITATIONS—FUEL SYSTEM AWLs," of the MPD describes AWLs for fuel tank systems. Subsection F of the MPD includes fuel system AWL No. 28-AWL-07, which is a critical design configuration control limitation (CDCCL) to maintain the design features of the center fuel tank HSP during its replacement.

FAA's Determination and Requirements of This Proposed AD

We are proposing this AD because we evaluated all relevant information and

determined the unsafe condition described previously is likely to exist or develop in other products of the (se) same type design(s). This proposed AD would require the following actions:

- Installing HSP equipment for the FQIS fuel densitometer and doing other specified actions as applicable.
- Revising the AWLs section of the ICA to incorporate AWL No. 28-AWL-07, which would require maintaining the design features of the center fuel tank HSP during its replacement.

This proposed AD would also allow accomplishing the revision to the AWLs section of the ICA in accordance with later revisions of the MPD as an acceptable method of compliance if they are approved by the Manager, Seattle Aircraft Certification Office, FAA.

Costs of Compliance

We estimate that this proposed AD would affect 13 airplanes of U.S. registry. The following table provides the estimated costs, at an average labor rate of \$80 per work hour, for U.S. operators to comply with this proposed AD.

ESTIMATED COSTS

Action	Work hours	Parts	Cost per airplane	Number of U.S.-registered airplanes	Fleet cost
Installation of HSP support brackets and equipment.	Up to 16	Up to \$14,698	Up to \$15,978	13	Up to \$207,714.
AWLs revision	1	None	\$80	13	\$1,040.

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), 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, 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 AD:

Boeing: Docket No. FAA-2008-0621; Directorate Identifier 2008-NM-015-AD.

Comments Due Date

- (a) We must receive comments by July 24, 2008.

Affected ADs

- (b) None.

Applicability

- (c) This AD applies to Boeing Model 737-600, -700, -800, and -900 series airplanes, certificated in any category; as identified in

Boeing Alert Service Bulletin 737-28A1221, Revision 1, dated November 9, 2007.

Note 1: This AD requires revisions to certain operator maintenance documents to include new inspections. Compliance with these inspections is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by these inspections, the operator may not be able to accomplish the inspections described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance (AMOC) according to paragraph (k) of this AD. The request should include a description of changes to the required inspections that will ensure the continued operational safety of the airplane.

Unsafe Condition

(d) This AD results from fuel system reviews conducted by the manufacturer. We are issuing this AD to prevent the center tank fuel densitometer from overheating and becoming a potential ignition source inside the center fuel tank, which, in combination with flammable fuel vapors, could result in a center fuel tank explosion and consequent loss of the airplane.

Compliance

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

Installation of the Hot Short Protector (HSP)

(f) Within 60 months after the effective date of this AD, install the HSP support brackets and equipment for the fuel quantity indicating system (FQIS) fuel densitometer and do all the other specified actions as applicable, by accomplishing all of the applicable actions specified in the Accomplishment Instructions of Boeing Alert Service Bulletin 737-28A1221, Revision 1, dated November 9, 2007.

Airworthiness Limitations (AWLs) Revision for AWL No. 28-AWL-07

(g) Concurrently with accomplishing the actions required by paragraph (f) of this AD, revise the AWLs section of the Instructions for Continued Airworthiness (ICA) by incorporating AWL No. 28-AWL-07 of Subsection F of the Boeing 737-600/700/800/900 Maintenance Planning Data (MPD) Document, D626A001-CMR, Section 9, Revision March 2007 R2 (hereafter referred to as "the MPD").

No Alternative Critical Design Configuration Control Limitations (CDCCLs)

(h) After accomplishing the action specified in paragraph (g) of this AD, no alternative CDCCLs may be used unless the CDCCLs are part of a later revision of the MPD that is approved by the Manager, Seattle ACO; or unless the CDCCLs are approved as an AMOC in accordance with the procedures specified in paragraph (k) of this AD.

Credit for Actions Done According to Previous Issue of Service Bulletin

(i) Actions done before the effective date of this AD in accordance with Boeing Alert

Service Bulletin 737-28A1221, dated January 14, 2007, are acceptable for compliance with the requirements of paragraph (f) of this AD.

Terminating Action for AWLs Revision

(j) Incorporating AWL No. 28-AWL-07 into the AWLs section of the ICA in accordance with paragraph (g)(3) of AD 2008-10-10, amendment 39-15516, terminates the action required by paragraph (g) of this AD.

Alternative Methods of Compliance (AMOCs)

(k)(1) The Manager, Seattle ACO, FAA, ATTN: Georgios Roussos, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6482; fax (425) 917-6590; has the authority to approve AMOCs for this AD, if requested using 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.

Issued in Renton, Washington, on May 30, 2008.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E8-12829 Filed 6-6-08; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0625; Directorate Identifier 2008-NM-069-AD]

RIN 2120-AA64

Airworthiness Directives; Bombardier Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) Airplanes; CL-600-2D15 (Regional Jet Series 705) Airplanes; and CL-600-2D24 (Regional Jet Series 900) Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for the products listed above. This proposed AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

During a pre-delivery flight of a CL-600-2C10 aircraft, the AC essential bus did not come on-line following deployment of the Air Driven Generator (ADG). Following investigation, it was determined that a specific batch of contactors in the ADG Power Center (ADGPC) is susceptible to failure due to low contact pressure. * * *

The unsafe condition is malfunction of the emergency AC generation and control system that supplies emergency AC power to essential flight instruments, including the flap and slat system, pitch trim system, and hydraulic pump 3B. Loss of essential flight instruments could prevent continued safe flight and landing of the airplane. The proposed AD would require actions that are intended to address the unsafe condition described in the MCAI.

DATES: We must receive comments on this proposed AD by July 9, 2008.

ADDRESSES: You may send comments 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 W12-40, 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

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FOR FURTHER INFORMATION CONTACT:

Wing Chan, Aerospace Engineer, Systems and Flight Test Branch, ANE-172, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7311; fax (516) 794-5531.

SUPPLEMENTARY INFORMATION: