Proposed Rules

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This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2010–1205; Directorate Identifier 2010–NM–146–AD]

RIN 2120–AA64

Airworthiness Directives; The Boeing Company Model 777–200, –200LR, –300, and –300ER 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 Model 777–200, –200LR, –300, and –300ER series airplanes. This proposed AD would require, for certain airplanes, replacing certain boost pump relays with ground fault interrupter (GFI) relays. For certain other airplanes, this proposed AD would require installing new panels in the main equipment center, making certain wiring changes, installing new GFI relays in the new panels, and installing new electrical load management system (ELMS) software. For certain other airplanes, this proposed AD would require doing certain bond resistance measurements, and corrective actions if necessary. This proposed AD results from fuel system reviews conducted by the manufacturer. We are proposing this AD to prevent the potential of ignition sources inside fuel tanks, which, in combination with flammable fuel vapors, could result in a fuel tank explosion and consequent loss of the airplane.

DATES: We must receive comments on this proposed AD by February 11, 2011.

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 Boeing service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H–65, Seattle, Washington 98124–2207; telephone 206–544–5000, extension 1; fax 206–766–5680; e-mail *me.boecom@boeing.com;* Internet *https://www.myboeingfleet.com*.

For Smiths and GE Aviation service information identified in this proposed AD, contact GE Aviation, Customer Services—Clearwater, P.O. Box 9013, Clearwater, Florida 33758; telephone 727–539–1631; fax 727–539–0680; e-mail *cs.support@ge.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 (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–2010–1205; Directorate Identifier 2010–NM–146–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 a fuel tank explosion and consequent loss of the airplane.

As part of the SFAR 88 analysis, Boeing found indications of wiring deterioration that could cause electrical faults in the main tank boost pumps, main tank jettison pumps, or center tank override/jettison pumps could result in an overheat or electrical arc condition that could provide an ignition source in the fuel tanks. Also, uncommanded dry operation of the main tank jettison pumps or the center tank override/jettison pumps could result from electrical faults or a single failure in the pump switch or the electrical load control unit (ELCU). Extended dry operation of the pump could cause an overheat condition, electrical arc, or frictional sparks, providing an ignition source in the fuel tanks. These ignition sources, in combination with flammable fuel vapors, could result in a fuel tank explosion and consequent loss of the airplane.

Relevant Service Information

We have reviewed Boeing Service Bulletin 777–28A0038, Revision 1, dated September 20, 2010. That service bulletin describes procedures for replacing 4 main tank boost pump relays in electrical load management system (ELMS) panels P110, P210, and P320, with new ground fault interrupter (GFI) relays.

Boeing Service Bulletin 777–28A0038, Revision 1, dated September 20, 2010, references the service bulletins identified in the following table as additional sources of guidance for replacing the main tank boost pump relays.

TABLE—SERVICE BULLETINS FOR BOEING SERVICE BULLETIN 777–28A0038

Service bulletin	Revision level	Date
GE Aviation Service Bulletin 4000ELM–28–448.	1	January 7, 2010.
GE Aviation Service Bulletin 4000ELM–28–451.	1	January 7, 2010.
GE Aviation Service Bulletin 5000ELM–28–446.	1	January 7, 2010.
GE Aviation Service Bulletin 5000ELM–28–449.	1	January 7, 2010.
Smiths Service Bulletin 4000ELM–28–445	Original	August 8, 2007.
Smiths Service Bulletin 4000ELM–28–465	Original	August 8, 2007.
Smiths Service Bulletin 5000ELM–28–443	Original	August 8, 2007.
Smiths Service Bulletin 5000ELM–28–463	Original	August 8, 2007.
Smiths Service Bulletin 6000ELM–28–444	Original	August 8, 2007.
Smiths Service Bulletin 6000ELM–28–447	Original	August 8, 2007.
Smiths Service Bulletin 6000ELM–28–450	Original	August 8, 2007.
Smiths Service Bulletin 6000ELM–28–464	Original	August 8, 2007.

We have also reviewed Boeing Service Bulletin 777–28A0037, Revision 2, dated September 20, 2010. That service bulletin describes procedures for certain airplanes, for installing new panels, P301 and P302, in the main equipment center; making certain wiring changes; installing new GFI relays in the P301 and P302 panels; and installing new ELMS software. For certain airplanes, that service bulletin describes procedures for measuring the bond resistance between the terminal lugs on certain studs and a ground bracket assembly, and corrective action if necessary. The corrective actions include repairing (cleaning of applicable components with solvent) or replacing (replacing applicable components with new components) affected components.

Boeing Service Bulletin 777–28A0039, Revision 2, dated September 20, 2010, is an additional source of guidance for installing ELMS software.

Smiths Service Bulletin 5000ELM–28–454, dated August 13, 2007; and GE Aviation Service Bulletin 6000ELM–28–455, Revision 1, dated February 1, 2010; are additional sources of guidance for making wiring changes in the P110 and P210 panels.

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 same type design. This proposed AD would require accomplishing the actions specified in the service information described previously.

Costs of Compliance

We estimate that this proposed AD would affect 130 airplanes of U.S. registry. The following table provides the estimated costs for U.S. operators to comply with this proposed AD.

TABLE—ESTIMATED COSTS

Action	Work hours	Average labor rate per hour	Parts	Cost per product	Number of U.S.-registered airplanes	Fleet cost
Replacements: Group 1 airplanes identified in Boeing Service Bulletin 777–28A0038.	3	$85	$25,577	$25,832	126	$3,254,832.
Replacements: Group 2 airplanes identified in Boeing Service Bulletin 777–28A0038.	3	85	52,545	52,800	0	No airplanes currently on U.S. Register.
Replacements: Group 3 airplanes identified in Boeing Service Bulletin 777–28A0038.	4	85	37,257	37,597	4	150,388.
Replacements: Group 4 airplanes identified in Boeing Service Bulletin 777–28A0038.	4	85	17,816	18,156	0	No airplanes currently on U.S. Register.
Installations and Measurement: Boeing Service Bulletin 777–28A0037.	76	85	29,934	36,394	130	4,731,220.

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, 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 AD:

The Boeing Company: Docket No. FAA–2010–1205; Directorate Identifier 2010–NM–146–AD.

Comments Due Date

(a) We must receive comments by February 11, 2011.

Affected ADs

(b) AD 2008–11–13, Amendment 39–15536, affects this AD.

Applicability

(c) This AD applies to The Boeing Company Model 777–200, –200LR, –300, and –300ER series airplanes, certificated in any category; as identified in the service information specified in paragraphs (c)(1) and (c)(2) of this AD.

(1) Boeing Service Bulletin 777–28A0038, Revision 1, dated September 20, 2010.

(2) Boeing Service Bulletin 777–28A0037, Revision 2, dated September 20, 2010.

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 a fuel tank explosion 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.

Related Airworthiness Limitation

Note 1: AD 2008–11–13 requires a revision of the Airworthiness Limitations (AWLs) section of the Instructions for Continued Airworthiness to include limitations for the fuel tank systems. One of the limitations, AWL 28–AWL–18, requires a repetitive inspection of the ground fault interrupter (GFI) functions.

Installations and Software Changes

(g) For Group 1 and 2 airplanes identified as Configuration 2 in Boeing Service Bulletin 777–28A0037, Revision 2, dated September 20, 2010: Within 36 months after the effective date of this AD, install new panels, P301 and P302, in the main equipment center; make certain wiring changes; install new GFI relays in the P301 and P302 panels; and install new electrical load management system (ELMS) software; as applicable. Do the applicable actions in accordance with the Accomplishment Instructions of Boeing Service Bulletin 777–28A0037, Revision 2, dated September 20, 2010.

Note 2: Boeing Service Bulletin 777–28A0039, Revision 2, dated September 20, 2010, is an additional source of guidance for installing ELMS software.

Note 3: Smiths Service Bulletin 5000ELM–28–454, dated August 13, 2007; and GE Aviation Service Bulletin 6000ELM–28–455, Revision 1, dated February 1, 2010; are additional sources of guidance for making a wiring change in the P110 and P210 panels, respectively.

(h) For Group 1 and 2 airplanes identified as Configuration 1 in Boeing Service Bulletin 777–28A0037, Revision 2, dated September 20, 2010: Within 36 months after the effective date of this AD, do bonding resistance measurements to verify bonding requirements as specified in Boeing Service Bulletin 777–28A0037, Revision 2, dated September 20, 2010, are met, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 777–28A0037, Revision 2, dated September 20, 2010.

Replacement of GFI Relays

(i) For airplanes identified in Boeing Service Bulletin 777–28A0038, Revision 1, dated September 20, 2010: Within 60 months after the effective date of this AD, replace 4 main tank boost pump relays in electrical load management system panels P110, P210, and P320 with new GFI relays, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 777–28A0038, Revision 1, dated September 20, 2010.

Note 4: Boeing Service Bulletin 777–28A0038, Revision 1, dated September 20, 2010, references the service bulletins identified in Table 1 of this AD as additional sources of guidance for replacing the main tank boost pump relays.

TABLE 1—ADDITIONAL SOURCES OF GUIDANCE FOR REPLACING THE MAIN TANK BOOST PUMP RELAYS

Group No. of airplanes, as identified in Boeing Service Bulletin 777–28A0038, Revision 1, dated September 20, 2010	Panel No.	Service bulletin	Revision level	Date
Group 1	P110	Smiths Service Bulletin 5000ELM–28–443.	Original	August 8, 2007.

TABLE 1—ADDITIONAL SOURCES OF GUIDANCE FOR REPLACING THE MAIN TANK BOOST PUMP RELAYS—Continued

Group No. of airplanes, as identified in Boeing Service Bulletin 777–28A0038, Revision 1, dated September 20, 2010	Panel No.	Service bulletin	Revision level	Date
Group 1	P210	Smiths Service Bulletin 6000ELM–28–444.	Original	August 8, 2007.
Group 1	P320	Smiths Service Bulletin 4000ELM–28–445.	Original	August 8, 2007.
Group 2	P110	GE Aviation Service Bulletin 5000ELM–28–446.	1	January 7, 2010.
Group 2	P210	Smiths Service Bulletin 6000ELM–28–447.	Original	August 8, 2007.
Group 2	P320	GE Aviation Service Bulletin 4000ELM–28–448.	1	January 7, 2010.
Group 3	P110	GE Aviation Service Bulletin 5000ELM–28–449.	1	January 7, 2010.
Group 3	P210	Smiths Service Bulletin 6000ELM–28–450.	Original	August 8, 2007.
Group 3	P320	GE Aviation Service Bulletin 4000ELM–28–451.	1	January 7, 2010.
Group 4	P110	Smiths Service Bulletin 5000ELM–28–463.	Original	August 8, 2007.
Group 4	P210	Smiths Service Bulletin 6000ELM–28–464.	Original	August 8, 2007.
Group 4	P320	Smiths Service Bulletin 4000ELM–28–465.	Original	August 8, 2007.

Paperwork Reduction Act Burden Statement

(j) A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120–0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave., SW., Washington, DC 20591, *Attn:* Information Collection Clearance Officer, AES–200.

Alternative Methods of Compliance (AMOCs)

(k)(1) The Manager, Seattle Aircraft Certification Office, 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:* 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. Information may be e-mailed to: *9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.*

(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.

Issued in Renton, Washington, on December 17, 2010.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2010–32657 Filed 12–27–10; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2010–1204; Directorate Identifier 2010–NM–147–AD]

RIN 2120–AA64

Airworthiness Directives; Various Aviation Communication & Surveillance Systems (ACSS) Traffic Alert and Collision Avoidance System (TCAS) Units

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for various aircraft equipped with certain ACSS TCAS units. This proposed AD would require upgrading software. This proposed AD results from reports of anomalies with TCAS units during a flight test over a high density airport. The TCAS units dropped several reduced surveillance aircraft tracks because of interference limiting. We are proposing this AD to prevent TCAS units from dropping tracks, which could compromise separation of air traffic and lead to subsequent mid-air collisions.

DATES: We must receive comments on this proposed AD by February 11, 2011.

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 proposed AD, contact Aviation Communication & Surveillance Systems, LLC, 19810 North 7th Avenue, Phoenix, Arizona 85027–4741; telephone (623) 445–7040; fax (623) 445–7004; e-mail *acss.orderadmin@L-3com.com;* Internet *http://www.acss.com.* You may review copies of the referenced service information at