

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

[Docket No. FAA-2007-28352; Directorate Identifier 2007-NM-037-AD]

RIN 2120-AA64

**Airworthiness Directives; Boeing Model 747-200B, 747-300, 747-400, 747-400D, and 747-400F Series Airplanes Equipped With General Electric CF6-80C2 Engines**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for certain Boeing Model 747-200B, 747-300, 747-400, 747-400D, and 747-400F series airplanes. This proposed AD would require repetitive inspections of the left- and right-hand flipper door assemblies of the engine core cowls for migrated pins and damaged flipper doors, and corrective actions if necessary. Modification of the hinge assemblies terminates the repetitive inspections. This proposed AD results from two reports of missing flipper doors for the engine core cowls. We are proposing this AD to detect and correct migrated hinge pins and damaged flipper doors, which could allow the flipper door to fall off, resulting in the potential for an engine fire to propagate into the flammable leakage zone of the strut and for the amount of fire extinguishing agent reaching the fire to be diluted, and subsequent uncontained fire in the engine strut.

**DATES:** We must receive comments on this proposed AD by July 20, 2007.

**ADDRESSES:** Use one of the following addresses to submit comments on this proposed AD.

- DOT Docket Web site: Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically.

- Government-wide rulemaking Web site: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.

- Mail: Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590.

- Fax: (202) 493-2251.

- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington,

DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207, for the service information identified in this proposed AD.

**FOR FURTHER INFORMATION CONTACT:**

Sulmo Mariano, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6501; fax (425) 917-6590.

**SUPPLEMENTARY INFORMATION:****Comments Invited**

We invite you to submit any relevant written data, views, or arguments regarding this proposed AD. Send your comments to an address listed in the **ADDRESSES** section. Include the docket number "FAA-2007-28352; Directorate Identifier 2007-NM-037-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the proposed AD. We will consider all comments received by the closing date and may amend the proposed AD in light of those comments.

We will post all comments we receive, without change, to <http://dms.dot.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this proposed AD. Using the search function of that Web site, anyone can find and read the comments in any of our dockets, including the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477-78), or you may visit <http://dms.dot.gov>.

**Examining the Docket**

You may examine the AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the DOT street address stated in the **ADDRESSES** section. Comments will be available in the AD docket shortly after the Docket Management System receives them.

**Discussion**

We have received two reports of missing flipper doors for the engine core cowls on Boeing Model 747 series airplanes equipped with General Electric CF6-80C2 engines. Investigation into the cause of the missing flipper doors revealed that hinge pins for the flipper doors were not secured correctly, and the vibration from the engine core cowls caused the hinge pins to migrate, allowing the flipper doors to fall off.

When the engine core cowl is opened during normal operation, the flipper door opens to provide clearance for the hinge fittings. When the engine core cowl is closed, the flipper door is clamped underneath the strut seal, forming a continuous strut firewall. If a flipper door is missing, it creates a 1-inch by 5-inch hole in the strut firewall. According to requirements of the master minimum equipment list, an airplane cannot depart with a missing flipper door.

This condition, if not corrected, could result in the potential for an engine fire to propagate into the flammable leakage zone of the strut and for the amount of fire extinguishing agent reaching the fire to be diluted, and subsequent uncontained fire in the engine strut.

**Relevant Service Information**

We have reviewed Boeing Special Attention Service Bulletin 747-71-2310, dated October 13, 2005. The service bulletin describes procedures for repetitively inspecting the left- and right-hand flipper door assemblies for migrated hinge pins and damaged flipper doors, and corrective actions if necessary. The corrective actions include replacing any damaged flipper door with a new or serviceable flipper door, and modifying the hinge assemblies if necessary. The modification includes shortening the hinge pin and peening (deforming) both ends of the hinge assembly to capture the pin. Modifying the hinge assemblies eliminates the need for the repetitive inspections. Accomplishing the actions specified in the service information is intended to adequately address the unsafe condition.

The Boeing service bulletin refers to Rohr Service Bulletin TBC/80C2-NAC-71-035, dated October 10, 2005, as an additional source of service information for inspecting hinge pins of the flipper doors, inspecting and replacing damaged flipper doors, and modifying the hinge assemblies of the flipper doors.

**FAA’s Determination and Requirements of the Proposed AD**

We have evaluated all pertinent information and identified an unsafe condition that is likely to exist or develop on other airplanes of this same

type design. For this reason, we are proposing this AD, which would require accomplishing the actions specified in the service information described previously.

**Costs of Compliance**

There are about 297 airplanes of the affected design in the worldwide fleet. The following table provides the estimated costs for U.S. operators to comply with this proposed AD.

ESTIMATED COSTS

Action	Work hours	Average labor rate per hour	Parts	Cost per airplane	Number of U.S.-registered airplanes	Fleet cost
Inspection of flipper door assemblies, per inspection cycle.	1	\$80	\$0	\$80, per inspection cycle	42	\$3,360, per inspection cycle.
Modification of hinge assemblies, if accomplished .....	1	\$80	\$0	\$80	Up to 42	Up to \$3,360.

**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 have 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 that the 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.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket. See the **ADDRESSES** section for a location to examine the regulatory evaluation.

**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 Federal Aviation Administration (FAA) amends § 39.13 by adding the following new airworthiness directive (AD):

**Boeing:** Docket No. FAA-2007-28352; Directorate Identifier 2007-NM-037-AD.

**Comments Due Date**

(a) The FAA must receive comments on this AD action by July 20, 2007.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Boeing Model 747-200B, 747-300, 747-400, 747-400D, and 747-400F series airplanes, certificated in any category, equipped with General Electric CF6-80C2 engines.

**Unsafe Condition**

(d) This AD results from two reports of missing flipper doors for the engine core cowl. We are issuing this AD to detect and correct migrated hinge pins and damaged flipper doors, which could allow the flipper

door to fall off, resulting in the potential for an engine fire to propagate into the flammable leakage zone of the strut and for the amount of fire extinguishing agent reaching the fire to be diluted, and subsequent uncontained fire in the engine strut.

**Compliance**

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

**Inspection of the Flipper Door Assemblies**

(f) Within 24 months after the effective date of this AD: Do a general visual inspection for migrated hinge pins and damaged flipper doors of the left- and right-hand flipper door assemblies of the engine core cowls, and do all applicable corrective actions, by accomplishing all the actions specified in the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-71-2310, dated October 13, 2005. Do all applicable corrective actions before further flight. Repeat the inspection thereafter at intervals not to exceed 18 months for that flipper door assembly, until doing the modification specified in paragraph (g) of this AD.

**Note 1:** Boeing Special Attention Service Bulletin 747-71-2310, dated October 13, 2005, refers to Rohr Service Bulletin TBC/80C2-NAC-71-035, dated October 10, 2005, as an additional source of service information for accomplishing the actions specified in paragraph (f) of this AD.

**Terminating Action for Repetitive Inspections**

(g) Modifying a hinge assembly of a flipper door assembly of the engine core cowls in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 747-71-2310, dated October 13, 2005, terminates the repetitive inspection requirements of this AD for that hinge assembly.

**Parts Installation**

(h) As of the effective date of this AD, no person may install, on any airplane, a hinge assembly, part number 224-2335-69, for the flipper door of the engine core cowl unless

it has been modified in accordance with the requirements of paragraph (g) of this AD.

#### Alternative Methods of Compliance (AMOCs)

(i)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested in accordance with 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 25, 2007.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E7-10757 Filed 6-4-07; 8:45 am]

BILLING CODE 4910-13-P

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2007-28351; Directorate Identifier 2007-NM-074-AD]

RIN 2120-AA64

#### Airworthiness Directives; McDonnell Douglas Model MD-11, MD-11F, DC-10-30 and DC-10-30F (KC-10A and KDC-10), DC-10-40, DC-10-40F, and MD-10-30F Airplanes

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for certain McDonnell Douglas Model MD-11, MD-11F, DC-10-30 and DC-10-30F (KC-10A and KDC-10), DC-10-40, DC-10-40F, and MD-10-30F airplanes. This proposed AD would require measuring the electrical resistance of the bond between the No. 2 fuel transfer pump adapter surface of the fuel tank and the fuel transfer pump housing flange, and performing corrective and other specified actions as applicable. This proposed AD results from a design review of the fuel tank systems. We are proposing this AD to prevent inadequate bonding between the No. 2 fuel transfer pump adapter surface of the fuel tank and the fuel transfer pump housing flange. Inadequate bonding could result in a potential ignition source inside the

fuel tank if the fuel transfer pump and structure interface are not submerged in fuel, 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 July 20, 2007.

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- *Hand Delivery:* Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Contact Boeing Commercial Airplanes, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1-L5A (D800-0024), for the service information identified in this proposed AD.

**FOR FURTHER INFORMATION CONTACT:** Serj Harutunian, Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5254; fax (562) 627-5210.

#### SUPPLEMENTARY INFORMATION:

##### Comments Invited

We invite you to submit any relevant written data, views, or arguments regarding this proposed AD. Send your comments to an address listed in the **ADDRESSES** section. Include the docket number "FAA-2007-28351; Directorate Identifier 2007-NM-074-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the proposed AD. We will consider all comments received by the closing date and may amend the proposed AD in light of those comments.

We will post all comments we receive, without change, to <http://dms.dot.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA

personnel concerning this proposed AD. Using the search function of that Web site, anyone can find and read the comments in any of our dockets, including the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477-78), or you may visit <http://dms.dot.gov>.

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#### 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