

[Federal Register: April 30, 2007 (Volume 72, Number 82)]  
[Rules and Regulations]  
[Page 21083-21086]  
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[DOCID:fr30ap07-3]

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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2007-27558; Directorate Identifier 2007-NM-053-AD; Amendment 39-15036; AD 2007-06-52]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Boeing Model 737-800 Series Airplanes**

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

**ACTION:** Final rule; request for comments.

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**SUMMARY:** This document publishes in the Federal Register an amendment adopting airworthiness directive (AD) 2007-06-52 that was sent previously to all known U.S. owners and operators of Boeing Model 737-800 series airplanes by individual notices. This AD requires inspecting spoilers to determine spoiler position after every landing and after any rejected takeoff maneuvers. For airplanes on which any spoiler is found in the up position with the speedbrake handle in the down position, this AD requires replacement of the flight spoiler actuator with a flight spoiler actuator having a certain part number. This AD also requires an operational test of the speedbrake control system after any maintenance actions that operate the spoiler system and replacement of the flight spoiler actuator if necessary. This AD also provides for optional terminating action for those requirements. In addition, this AD requires you to report to the manufacturer any spoiler panel that is found in the up position with the speedbrake handle in the down position. This AD results from a report of seven flight spoiler actuator jams on Model 737-800 Short Field Performance airplanes. We are issuing this AD to detect and correct any spoiler panel that is found in the up position with the speedbrake handle in the down position, which could result in a spoiler actuator hardover, and could cause the spoiler surface to jam in the fully extended position. Two or more hardover failures of the spoiler surfaces in the up direction on the same wing, if undetected prior to takeoff, can cause significant roll and consequent loss of control of the airplane.

**DATES:** This AD becomes effective May 7, 2007 to all persons except those persons to whom it was made immediately effective by emergency AD 2007-06-52, issued March 14, 2007, which contained the requirements of this amendment.

The incorporation by reference of a certain publication listed in the AD is approved by the Director of the Federal Register as of May 7, 2007.

We must receive comments on this AD by June 29, 2007.

**ADDRESSES:** Use one of the following addresses to submit comments on this 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 service information identified in this AD.

**FOR FURTHER INFORMATION CONTACT:** Kelly McGuckin, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6490; fax (425) 917-6590.

**SUPPLEMENTARY INFORMATION:** On March 14, 2007, we issued emergency AD 2007-06-52, which applies to certain Boeing Model 737-800 series airplanes.

## **Background**

On March 13, 2007, the FAA issued emergency AD 2007-06-51 for certain Boeing Model 737-800 series airplanes. That AD requires inspecting spoilers to determine spoiler position after every landing and after any rejected takeoff maneuvers. For airplanes on which any spoiler is found in the up position with the speedbrake handle in the down position, that AD requires replacement of the flight spoiler actuator with a flight spoiler actuator having a certain part number. That AD also requires an operational test of the speedbrake control system after any maintenance actions that operate the spoiler system and replacement of the flight spoiler actuator if necessary. That AD also provides for optional terminating action for those requirements. In addition, that AD requires you to report to the manufacturer any spoiler panel that is found in the up position with the speedbrake handle in the down position.

That AD resulted from a report of seven flight spoiler actuator jams on Model 737-800 Short Field Performance (SFP) airplanes. Two reports involved in-service airplanes that were discovered during a routine maintenance walk-around and were believed to have occurred on the previous landing during auto speedbrake extension. Five other reports occurred during spoiler system testing at Boeing prior to delivery. An additional two reports of spoiler actuator input lever binding were identified during bench testing after Boeing began to investigate this issue.

The two in-service failures of flight spoilers resulted in the spoilers not retracting after the speedbrake handle was moved to the DOWN position after landing, on a Boeing Model 737-800 airplane equipped with an SFP package. In both of these cases, the spoiler was discovered in the full-extended position during a routine maintenance walk-around. The spoiler remained in the full-extended position after cycling of the speedbrake handle.

Further investigation revealed that the spoiler actuator failure is most likely to occur when the speedbrakes are deployed on the ground (automatically or manually) for either a rejected takeoff or normal landing. The takeoff configuration warning will not sound if any flight spoiler remains extended with the speedbrake handle in the DOWN position. The cause of the failure has been identified as interference within the actuator main control valve.

This condition, if not corrected, could result in a spoiler actuator hardover, which could cause the spoiler surface to jam in the fully extended position. Two or more hardover failures of the spoiler

surfaces in the up direction on the same wing, if undetected prior to takeoff, can cause significant roll and consequent loss of control of the airplane.

### **Actions Since Issuance of Previous AD**

Since that AD was issued, we have become aware of two incorrect part numbers identified throughout emergency AD 2007-06-51. The identified incorrect part numbers do not exist. The incorrect part numbers were for the replacement flight spoiler actuator and the flight spoiler actuator that may no longer be installed.

In light of this, we have determined that emergency AD 2007-06-51 must be superseded to reflect the correct part numbers.

### **Relevant Service Information**

We have reviewed Boeing 737 Flight Crew Operations Manual Bulletin No. TBC-67, dated March 5, 2007. The bulletin describes procedures for inspecting spoilers to determine spoiler position after landing and after any rejected takeoff maneuvers. For airplanes on which any spoiler is found in the up position with the speedbrake handle in the down position, the bulletin specifies to contact maintenance.

### **FAA's Determination and Requirements of This AD**

Since the unsafe condition described is likely to exist or develop on other airplanes of the same type design, we issued emergency AD 2007-06-52 to detect and correct any spoiler panel that is found in the up position with the speedbrake handle in the down position, which could result in a spoiler actuator hardover, and could cause the spoiler surface to jam in the fully extended position. Two or more hardover failures of the spoiler surfaces in the up direction on the same wing, if undetected prior to takeoff, can cause significant roll and consequent loss of control of the airplane. This new AD supersedes emergency AD 2007-06-51. This new AD requires the actions specified in emergency AD 2007-06051, but corrects certain part numbers. This AD requires accomplishing the actions specified in the service information described previously, except as described in "Differences Between This AD and the Service Information."

We found that immediate corrective action was required; therefore, notice and opportunity for prior public comment thereon were impracticable and contrary to the public interest, and good cause existed to make the AD effective immediately by individual notices issued on March 14, 2007, to all known U.S. owners and operators of Boeing Model 737-800 series airplanes. These conditions still exist, and the AD is hereby published in the Federal Register as an amendment to section 39.13 of the Federal Aviation Regulations (14 CFR 39.13) to make it effective to all persons.

### **Differences Between This AD and the Service Information**

In addition to the inspection specified in the service information, this AD also requires that, after any maintenance action that operates the spoiler system, the "Speedbrake Control System Operational Test" specified in Chapter 27-62-00 of the Boeing 737-600/700/800/900 Aircraft Maintenance Manual (AMM) be accomplished. This AD also specifies that the Master Minimum Equipment List Item 27-7, "Auto Speed Brake System," is no longer applicable to Model 737-800 series airplanes equipped with an SFP package. This AD also provides an optional terminating action of installing flight spoiler actuator, part number (P/N) P665A0001-01 or higher dash number, in all eight flight spoiler positions.

Although the service information specifies that operators may contact maintenance for disposition if any spoiler remains in the up position with the speedbrake handle in the down position,

this AD requires operators to replace the flight spoiler actuator with a flight spoiler actuator, having P/N P665A0001-01 or higher dash number, using a method approved by the FAA.

Operators should note that the service information specifies doing an inspection. However, this AD requires doing a “visual check,” which may be done by qualified ground personnel or flightcrew. We have determined that these visual checks may be properly performed by flightcrew because the checks do not require tools, precision measuring equipment, training, or pilot logbook endorsements, or the use of or reference to technical data that are not contained in the body of the AD.

### **Interim Action**

We consider this AD interim action. We are currently considering requiring the replacement of the flight spoiler actuator, which will constitute terminating action for the visual checks and operational tests required by this AD action.

### **Comments Invited**

This AD is a final rule that involves requirements that affect flight safety and was not preceded by notice and an opportunity for public comment; however, we invite you to submit any relevant written data, views, or arguments regarding this AD. Send your comments to an address listed in the ADDRESSES section. Include “Docket No. FAA-2007-27558; Directorate Identifier 2007-NM-053-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the AD that might suggest a need to modify it.

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 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 the 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.

### **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 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.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a “significant regulatory action” under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If this emergency regulation is later deemed significant under DOT Regulatory Policies and Procedures, we will prepare a final regulatory evaluation and place it in the AD Docket. See the ADDRESSES section for a location to examine the regulatory evaluation, if filed.

## **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 airworthiness directive (AD):



**2007-06-52 Boeing:** Amendment 39-15036. Docket No. FAA-2007-27558; Directorate Identifier 2007-NM-053-AD.

### **Effective Date**

(a) This AD becomes effective May 7, 2007, to all persons except those persons to whom it was made immediately effective by emergency AD 2007-06-52, issued on March 14, 2007, which contained the requirements of this amendment.

### **Affected ADs**

(b) This AD supersedes emergency AD 2007-06-51, issued March 13, 2007.

### **Applicability**

(c) This AD applies to the Boeing Model 737-800 series airplanes, certificated in any category, serial numbers 32685, 34277 through 34281 inclusive, 34474, 34475, 34654 through 34656 inclusive, 34690, 34948, 34949, 35091 through 35093 inclusive, 35103, 35134, 35176 through 35183 inclusive, 35330, 35331, 35558, 35559, and 36323 through 36328 inclusive.

### **Unsafe Condition**

(d) This AD results from a report of seven flight spoiler actuator jams on Model 737-800 Short Field Performance (SFP) airplanes. The cause of the failure has been identified as interference within the actuator main control valve. We are issuing this AD to detect and correct any spoiler panel that is found in the up position with the speedbrake handle in the down position, which could result in a spoiler actuator hardover, and could cause the spoiler surface to jam in the fully extended position. Two or more hardover failures of the spoiler surfaces in the up direction on the same wing, if undetected prior to takeoff, can cause significant roll and consequent loss of control of the airplane.

### **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.

### **Visual Check and Corrective Action**

(f) Within 24 clock hours after the effective date of this AD, do the actions specified in paragraphs (f)(1), (f)(2), and (f)(3) of this AD, as applicable. The visual checks required by paragraphs (f)(1) and (f)(2) of this AD may be performed by qualified personnel or flightcrew, and must be entered into the aircraft records showing compliance with this AD in accordance with 14 CFR 43.9(b) and 14 CFR 121.363 and 121.380.

(1) After every landing, visually check the spoilers to determine spoiler position, in accordance with Boeing 737 Flight Crew Operations Manual Bulletin No. TBC-67, dated March 5, 2007.

(i) If all spoilers are determined to be properly stowed, no further action is required by this paragraph.

(ii) If any spoiler is found to be improperly stowed (in the up position with the speedbrake handle in the down position), before further flight, replace the flight spoiler actuator with a flight spoiler actuator, having part number (P/N) P665A0001-01 or higher dash number, in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA. The “Flight Spoiler Actuator Removal” task and the “Flight Spoiler Actuator Installation” task in Chapter 27-61-51 of the Boeing 737-600/700/800/900 Aircraft Maintenance Manual (AMM) are approved methods for the replacement (removal and installation) of the flight spoiler actuator.

(2) After any rejected takeoff maneuver, do the visual check specified in paragraph (f)(1) of this AD.

(3) After any maintenance action that operates the spoiler system, do an operational test of the speedbrake control system in accordance with a method approved by the Manager, Seattle ACO, FAA. The “Speedbrake Control System Operational Test” specified in Chapter 27-62-00 of the Boeing 737-600/700/800/900 AMM is one approved method for the operational test of the speedbrake control system. If any spoiler panel is found to be fully extended with the speedbrake handle down, or if any spoiler panel is found fully retracted when the speedbrake handle is up, before further flight, replace the flight spoiler actuator in accordance with the actions specified in paragraph (f)(1)(ii) of this AD.

### **Master Minimum Equipment List Item**

(g) As of the effective date of this AD, the Master Minimum Equipment List Item 27-7, “Auto Speed Brake System,” is no longer applicable to Model 737-800 series airplanes equipped with an SFP package.

### **Optional Terminating Action**

(h) Installation of flight spoiler actuator, P/N P665A0001-01 or higher dash number, in all eight flight spoiler positions ends the requirements of paragraph (f) of this AD.

### **Reporting**

(i) If any spoiler is found to be improperly stowed during any visual check required by this AD, at the applicable time specified in paragraphs (i)(1) and (i)(2) of this AD, report the following information electronically to Boeing using the established Boeing Communications System (BCS): Airplane serial number, jam position, spoiler panel number or wing position of the spoiler that jammed, date of visual check, and flight hours accumulated on the airplane.

(1) For visual checks done before the effective date of this AD: Within 7 days after the effective date of this AD.

(2) For visual checks done after the effective date of this AD: Within 7 days after doing the inspection.

### **Parts Installation**

(j) As of the effective date of this AD, no person may install a flight spoiler actuator, having P/N P665A0001-00, on any airplane.

### **Special Flight Permit**

(k) Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are not allowed.

## **Alternative Methods of Compliance (AMOCs)**

(1)(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.

## **Material Incorporated by Reference**

(m) You must use Boeing 737 Flight Crew Operations Manual Bulletin No. TBC-67, dated March 5, 2007, to perform the actions that are required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference of this document in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207, for a copy of this service information. You may review copies at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on April 18, 2007.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E7-7850 Filed 4-27-07; 8:45 am]