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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2007-28750; Directorate Identifier 2007-NM-124-AD; Amendment 39-15133; AD 2007-15-04]

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.

SUMMARY: The FAA is superseding an existing airworthiness directive (AD) that applies to certain Boeing Model 737-800 series airplanes. The existing AD currently requires inspecting flight spoilers to determine spoiler position after every landing and after any rejected takeoff maneuver. For airplanes on which any flight spoiler is found in the up position with the speedbrake handle in the down position, the existing AD requires replacing the flight spoiler actuator with a flight spoiler actuator having a certain part number. The existing 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. The existing AD also provides for optional terminating action for those requirements. This new AD requires the previously optional terminating action. This AD results from a report of seven flight spoiler actuator jams on Model 737-800 airplanes equipped for short field performance (SFP). The cause of the failure has been identified as interference within the actuator main control valve. We are issuing this AD to prevent operation with defective flight spoiler actuators, which could result in a flight spoiler actuator hardover, and could cause the flight spoiler surface to jam in the fully extended position. Two or more hardover failures of the flight 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 August 8, 2007.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of August 8, 2007.

On May 7, 2007 (72 FR 21083, April 30, 2007), the Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD.

We must receive any comments on this AD by September 24, 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: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.
- Fax: (202) 493-2251.
- Hand Delivery: Room W12-140 on the ground floor of the West Building, 1200 New Jersey Avenue, SE., 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:

Discussion

On April 18, 2007, we issued AD 2007-06-52, amendment 39-15036 (72 FR 21083, April 30, 2007). That AD applies to certain Boeing Model 737-800 series airplanes. That AD requires inspecting flight spoilers to determine spoiler position after every landing and after any rejected takeoff maneuver. For airplanes on which any flight 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(s) 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. The actions specified in that AD are intended 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.

The goal of the actions required by AD 2007-06-52 is to detect actuators that might have failed during the previous flight in order to prevent an attempted takeoff with extended flight spoiler(s). We determined that takeoff is the most critical portion of the flight profile for this particular failure, but it is not the only flight profile that could be affected. Therefore, we are issuing this new AD for the following reasons:

- Replacing all flight spoiler actuators is the best method to eliminate the possibility of this failure.
- The inspections and operational tests required by AD 2007-06-52 are an interim solution and cannot detect or prevent other possible scenarios involving a failed flight spoiler actuator.
- Inspecting each flight spoiler after every landing and after any rejected takeoff maneuver does not guarantee that the flight spoiler will function properly during the next flight.

Actions Since AD Was Issued

The preamble to AD 2007-06-52 explains that we consider the requirements "interim action" and are considering requiring the replacement of all eight flight spoiler actuators. We now have determined that replacement of the flight spoiler actuators is necessary, and this AD follows from that determination. The replacement actuators correct the interference condition in the valve assembly, eliminate possible rate jam conditions, and ensure continued correct operation of the flight spoilers. Replacement of all flight spoiler actuators constitutes terminating action for the requirements of AD 2007-06-52.

In addition, paragraph (g) of AD 2007-06-52 also specifies that the Master Minimum Equipment List (MMEL) Item 27-7, "Auto Speed Brake System," is no longer applicable to Model 737-800 series airplanes equipped with an SFP package. Since we issued AD 2007-06-52, Boeing has revised MMEL Item 27-7 to accurately reflect the operational requirements to account for the degraded performance when operating a Model 737-800 series airplane equipped with the SFP package when it has the auto speed brake system disabled. Therefore, the requirement in paragraph (g) of AD 2007-06-52 has not been restated in this AD. We have re-lettered the remaining paragraphs accordingly.

Relevant Service Information

We have reviewed Boeing Alert Service Bulletin 737-27A1283, dated April 3, 2007. The service bulletin describes procedures for installing an improved SFP actuator for each of the eight flight spoilers. The installation includes replacing the SFP actuator, making sure there is no hydraulic leakage at the connections to each of the new, improved SFP actuators, and completing all adjustments and tests of each flight spoiler to make sure it operates correctly. The service bulletin specifies doing the adjustments and tests in accordance with the applicable aircraft maintenance manual. The service bulletin also specifies returning each removed flight spoiler SFP actuator to the vendor for modification. The service bulletin includes eight individual work packages for replacement of each of the eight flight spoiler actuators to allow flexibility in accomplishing the service bulletin. Accomplishing the actions specified in the service information is intended to adequately address the unsafe condition.

FAA's Determination and Requirements of This AD

The unsafe condition described previously is likely to exist or develop on other airplanes of the same type design. For this reason, we are issuing this AD to supersede AD 2007-06-52. This new AD retains certain requirements of the existing AD. This AD also requires accomplishing the actions specified in the service bulletin described previously, except as discussed under "Difference Between the AD and the Service Bulletin." This AD allows 120 days from its effective date to accomplish the required actions. This amount of time is necessary to enable operators to obtain sufficient parts to modify all affected airplanes.

Difference Between the AD and the Service Bulletin

Operators should note that, although the Accomplishment Instructions of Boeing Alert Service Bulletin 737-27A1283, dated April 3, 2007, describe procedures for returning parts to the vendor, this AD does not require that action.

Change to Alternative Methods of Compliance (AMOCs) Paragraph

AD 2007-06-52 requires accomplishing certain actions in accordance with Boeing 737 Flight Crew Operations Manual Bulletin No. TBC-67, dated March 5, 2007. That document is specific to

Boeing operations. Since we issued AD 2007-06-52, Boeing has released operator-specific versions of Bulletin No. TBC-67 for affected operators of Model 737-800 airplanes equipped with the SFP package. The operator-specific documents have been approved as AMOCs for AD 2007-06-52. For simplicity, paragraph (f)(1) of this new AD continues to require actions in accordance with Bulletin No. TBC-67. However, paragraph (1)(3) has been added to this AD to specify that the existing AMOCs that approve operator-specific documents continue to be acceptable.

Clarification of Terminology

We use the term "flight spoilers," "flight spoiler actuators," or "SFP actuators," in this AD to refer to the affected spoilers and actuators. There are ground spoilers on the affected airplanes, but the ground spoilers have a different type of actuator and are not affected by this AD. We have added Note 1 to this AD to include this clarification.

FAA's Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD; therefore, providing notice and opportunity for public comment before the AD is issued is impracticable, and good cause exists to make this AD effective in less than 30 days.

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-2007-28750; Directorate Identifier 2007-NM-124-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 Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Operations office (telephone (800) 647-5527) is located on the ground floor of the West Building at the 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.

For the reasons discussed above, I certify that the 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 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, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends part 39 of the Federal Aviation Regulations (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 removing amendment 39-15036 (72 FR 21083, April 30, 2007) and adding the following new airworthiness directive (AD):



2007-15-04 Boeing: Docket No. FAA-2007-28750; Directorate Identifier 2007-NM-124-AD; Amendment 39-15133.

Effective Date

(a) This AD becomes effective August 8, 2007.

Affected ADs

(b) This AD supersedes AD 2007-06-52.

Applicability

(c) This AD applies to 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 series airplanes equipped for short field performance (SFP). The cause of the failure has been identified as interference within the actuator main control valve. We are issuing this AD to prevent operation with defective flight spoiler actuators, 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 flight 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.

Note 1: We use the term "flight spoilers," "flight spoiler actuators," or "SFP actuators," in this AD to refer to the affected spoilers and actuators. There are ground spoilers on the affected airplanes, but the ground spoilers have a different type of actuator and are not affected by this AD.

Restatement of the Requirements of AD 2007-06-52

Visual Check and Corrective Action

(f) Within 24 clock hours after May 7, 2007 (the effective date of AD 2007-06-52), do the actions specified in paragraphs (f)(1), (f)(2), and (f)(3) of this AD, as applicable, until the action required by paragraph (h) of this AD is accomplished. 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.

Reporting

(g) If any spoiler is found to be improperly stowed during any visual check required by this AD, at the applicable time specified in paragraphs (g)(1) and (g)(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. Doing the action required by paragraph (h) of this AD terminates the requirements of this paragraph.

(1) For visual checks done before May 7, 2007: Within 7 days after May 7, 2007.

(2) For visual checks done after May 7, 2007: Within 7 days after doing the inspection.

New Requirements of This AD

Terminating Action

(h) Within 120 days after the effective date of this AD: Install flight spoiler actuator, P/N P665A0001-01 or higher dash number, in all eight flight spoiler positions in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-27A1283, dated April 3, 2007. Doing this installation ends the requirements of paragraphs (f) and (g) of this AD. Any flight spoiler actuator with P/N P665A0001-01 (or higher dash number) that was previously installed in any flight spoiler position in accordance with the requirements of AD 2007-06-52 is acceptable for meeting the requirements of this AD for that flight spoiler position.

Parts Installation

(i) As of May 7, 2007, no person may install a flight spoiler actuator, having P/N P665A0001-00, on any airplane.

Parts Return

(j) Although the Accomplishment Instructions of Boeing Alert Service Bulletin 737-27A1283, dated April 3, 2007, describe procedures for returning parts to the vendor, this AD does not require that action.

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 subject to the requirements of paragraphs (k)(1) and (k)(2) of this AD.

(1) Special flight permits are not allowed if any flight spoiler is found in the up position during any visual check required by paragraph (f) of this AD.

(2) Special flight permits are allowed for ferry flights to a maintenance location to accomplish the flight spoiler actuator installation required by paragraph (h) of this AD if no flight spoiler has failed any visual check required by paragraph (f) of this AD.

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.

(3) AMOCs approved previously in accordance with AD 2007-06-52 are approved as AMOCs for the corresponding provisions of this AD.

Material Incorporated by Reference

(m) You must use Boeing 737 Flight Crew Operations Manual Bulletin No. TBC-67, dated March 5, 2007; and Boeing Alert Service Bulletin 737-27A1283, dated April 3, 2007; as applicable, to perform the actions that are required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of Boeing Alert Service Bulletin 737-27A1283, dated April 3, 2007, in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(2) On May 7, 2007 (72 FR 21083, April 30, 2007), the Director of the Federal Register approved the incorporation by reference of Boeing 737 Flight Crew Operations Manual Bulletin No. TBC-67, dated March 5, 2007.

(3) 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 July 11, 2007.

Stephen P. Boyd,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

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