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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2007-27151; Directorate Identifier 2006-NM-156-AD; Amendment 39-15206; AD 2007-19-15]**

**RIN 2120-AA64**

**Airworthiness Directives; McDonnell Douglas Model MD-10-10F and MD-10-30F Airplanes, Model MD-11 and MD-11F Airplanes, and Model 717-200 Airplanes**

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

**ACTION:** Final rule.

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**SUMMARY:** The FAA is superseding an existing airworthiness directive (AD), which applies to all McDonnell Douglas Model MD-10-10F and MD-10-30F airplanes, Model MD-11 and MD-11F airplanes, and Model 717-200 airplanes. That AD currently requires a revision to the Limitations section of the airplane flight manual (AFM) to prohibit use of the flight management system (FMS) profile (PROF) mode for descent and/or approach operations unless certain conditions are met. This new AD requires, for certain Model 717-200 airplanes, upgrading the versatile integrated avionics (VIA) digital computer with new system software, which would end the need for the AFM revision. This AD results from a report of two violations of the selected flight control panel (FCP) altitude during FMS PROF descents. We are issuing this AD to prevent, under certain conditions during the FMS PROF descent, the uncommanded descent of an airplane below the selected level-off altitude, which could result in an unacceptable reduction in the separation between the airplane and nearby air traffic or terrain.

**DATES:** This AD becomes effective October 26, 2007.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of October 26, 2007.

**ADDRESSES:** You may examine the AD docket on the Internet at <http://dms.dot.gov> or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC.

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 service information identified in this AD.

**FOR FURTHER INFORMATION CONTACT:** Thomas Phan, Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5342; fax (562) 627-5210.

## **SUPPLEMENTARY INFORMATION:**

### **Examining the Docket**

You may examine the airworthiness directive (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 DOT street address stated in the ADDRESSES section.

### **Discussion**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that supersedes AD 2004-18-04, amendment 39-13782 (69 FR 53794, September 3, 2004). [A correction of that AD was published in the Federal Register on September 21, 2004 (69 FR 56480).] The existing AD applies to all McDonnell Douglas Model MD-10-10F and MD-10-30F airplanes, Model MD-11 and MD-11F airplanes, and Model 717-200 airplanes. That NPRM was published in the Federal Register on February 14, 2007 (72 FR 6975). That NPRM proposed to continue to require a revision to the Limitations section of the airplane flight manual (AFM), and proposed, for Model 717-200 airplanes, upgrading the versatile integrated avionics (VIA) digital computer with new system software, which would end the need for the AFM revision.

### **Comments**

We provided the public the opportunity to participate in the development of this AD. We have considered the comments that have been received on the NPRM.

### **Support for the NPRM**

AirTran Airways states that it supports the proposed actions described in the NPRM.

### **Request To Revise Applicability**

Midwest Airlines requests that we revise the applicability of the NPRM. Midwest suggests that for Model 717-200, paragraph (c) of the NPRM include only those airplanes that are listed in Boeing Service Bulletin 717-31-0013, dated March 25, 2005 (which is referred to as the appropriate source of service information for doing the software upgrade specified in the NPRM). Midwest believes that this is an appropriate limiting of applicability for that model because fuselage numbers 5141 and subsequent were delivered from Boeing with the upgraded VIA part number 4081570-909 installed. Midwest concludes that since these airplanes were delivered with the improved VIA installed, these aircraft do not have the unsafe condition that was present with airplanes that were delivered with the affected VIAs.

We agree with the commenter for the reasons stated. We have revised paragraph (c) of this AD accordingly.

## Request To Revise Paragraph (g) of the NPRM

AirTran Airways requests that we revise paragraph (g) of the NPRM to coincide with the actions specified in Boeing Service Bulletin 717-31-0013, dated March 25, 2005. AirTran requests that the sentence "Doing this upgrade terminates the requirements of paragraph (f) of this AD for that airplane only" to state "Accomplishing this upgrade or the installation of VIA P/N 4081570-909 or subsequent terminates the requirements of paragraph (f) of this AD for that airplane only."

We agree with the commenter. Doing the upgrade converts VIAs having P/Ns prior to 4081570-909 to VIAs having P/N 4081570-909. We have revised paragraph (g) of this AD accordingly.

## Clarification of Alternative Method of Compliance (AMOC) Paragraph

We have revised this action to clarify the appropriate procedure for notifying the principal inspector before using any approved AMOC on any airplane to which the AMOC applies.

## Conclusion

We have carefully reviewed the available data, including the comments that have been received, and determined that air safety and the public interest require adopting the AD with the changes described previously. We have determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

## Costs of Compliance

There are about 369 airplanes of the affected design in the worldwide fleet. The following table provides the estimated costs for U.S. operators to comply with this AD. The parts manufacturer states that it will supply required parts to the operators at no cost.

Estimated Costs					
Action	Work hours	Average labor rate per hour	Cost per airplane	Number of U.S.-registered airplanes	Fleet cost
AFM Revision (required by AD 2004-18-04)	1	\$80	\$80	226	\$18,080
Software upgrade for Model 717-200 airplanes (new action)	1	\$80	\$80	109	\$8,720

## 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 this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866;
- (2) Is not a "significant rule" under 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 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 39-13782 (69 FR 53794, September 3, 2004), corrected at 69 FR 56480, September 21, 2004, and by adding the following new airworthiness directive (AD):



**2007-19-15 McDonnell Douglas:** Amendment 39-15206. Docket No. FAA-2007-27151; Directorate Identifier 2006-NM-156-AD.

**Effective Date**

- (a) This AD becomes effective October 26, 2007.

**Affected ADs**

- (b) This AD supersedes AD 2004-18-04.

**Applicability**

(c) This AD applies to the airplanes listed in paragraphs (c)(1) and (c)(2) of this AD, certificated in any category.

(1) All McDonnell Douglas Model MD-10-10F and MD-10-30F airplanes, and Model MD-11 and MD-11F airplanes.

(2) Model 717-200 airplanes, as identified in Boeing Service Bulletin 717-31-0013, dated March 25, 2005.

**Unsafe Condition**

(d) This AD results from a report of two violations of the selected flight control panel (FCP) altitude during flight management system (FMS) profile (PROF) descents. We are issuing this AD to prevent, under certain conditions during the FMS PROF descent, the uncommanded descent of an airplane below the selected level-off altitude, which could result in an unacceptable reduction in the separation between the airplane and nearby air traffic or terrain.

**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.

**Restatement of Requirements of AD 2004-18-04**

**Airplane Flight Manual (AFM) Revision**

(f) Within 90 days after September 20, 2004 (the effective date of AD 2004-18-04), revise the Limitations section of the AFM to include the following statement. This may be done by inserting a copy of this AD in the AFM. Doing the applicable software upgrade specified in paragraph (g) of this AD (for Model 717-200 airplanes), paragraph (j) of AD 2006-16-15, amendment 39-14715 (for Model MD-11 and MD-11F airplanes), or paragraph (k) of AD 2006-16-15 (for Model MD-10-10F and MD-10-30F airplanes), terminates the requirements of this paragraph for that airplane. For airplanes on which the applicable software upgrade has been done, the AFM revision may be removed.

"Use of PROF mode for descent and/or approach operations is prohibited unless

1. The airplane is on path and the FMA indicates THRUST | xxx | PROF, or
2. The indicated airspeed is below Vmax for the airplane configuration by at least:
  - a. 10 knots at indicated altitudes below 10,000 feet, or
  - b. 15 knots at indicated altitudes of 10,000 feet or above, or
3. Basic autoflight modes (e.g., LVL CHG, V/S, or FPA) are used to recapture the path when the PROF mode is engaged and the airplane is:
  - a. Above or below the path and the FMA indicates PITCH | xxx | IDLE, or
  - b. Below the path and the FMA indicates THRUST | xxx | V/S."

Note 1: When a statement identical to that in paragraph (f) of this AD has been included in the general revisions of the AFM, the general revisions may be inserted into the AFM, and the copy of this AD may be removed from the AFM.

## **New Requirements of This AD**

### **Upgrade Software—Model 717-200 Airplanes**

(g) For Model 717-200 airplanes: Within 18 months after the effective date of this AD, upgrade the versatile integrated avionics (VIA) digital computer with new system software (part number (P/N) PS4081970-909) and in-service data acquisition system (ISDAS) database (DB) software (P/N PS4081642-909), in accordance with the Accomplishment Instructions of Boeing Service Bulletin 717-31-0013, dated March 25, 2005. Accomplishing this upgrade or the installation of VIA P/N 4081570-909 or subsequent terminates the requirements of paragraph (f) of this AD for that airplane only.

Note 2: Boeing Service Bulletin 717-31-0013, dated March 25, 2005, refers to Honeywell Alert Service Bulletin 4081570-31-A6007, dated March 9, 2005, as an additional source of service information for doing the actions specified in paragraph (g) of this AD.

### **Parts Installation**

(h) For Model 717-200 airplanes: As of the effective date of this AD, no person may install a VIA digital computer, P/N 4081570-904, -905, -906, or -907, on any airplane, except as required by the actions specified in paragraph (g) of this AD.

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

(i)(1) The Manager, Los Angeles Aircraft Certification Office, 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**

(j) You must use Boeing Service Bulletin 717-31-0013, dated March 25, 2005, 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, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1-L5A (D800-0024), 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 September 10, 2007.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

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