

**DEPARTMENT OF TRANSPORTATION**  
**Federal Aviation Administration**

**14 CFR Part 39**

[Docket No. FAA-2008-0892; Directorate Identifier 2008-CE-049-AD; Amendment 39-15742; AD 2008-24-02]

RIN 2120-AA64

**Airworthiness Directives; Maule Aerospace Technology, Inc. M-4, M-5, M-6, and M-7 Series and Model M-8-235 Airplanes**

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

**ACTION:** Final rule.

**SUMMARY:** The FAA adopts a new airworthiness directive (AD) for certain Maule Aerospace Technology, Inc. M-4, M-5, M-6, and M-7 series and Model M-8-235 airplanes. This AD requires you to paint the top of the rear elevator control horn, the elevator control cable end attached to the top of the rear control horn, the bottom of the forward elevator control horn, and the elevator control cable end attached to the bottom of the forward control horn. This AD also requires you to insert a supplement into your maintenance program (maintenance manual). This AD results from two reports of accidents where reversed elevator control rigging was a factor. We are issuing this AD to reduce the likelihood of a mechanic rigging the elevator controls backwards, which could result in elevator movement in the opposite direction from control input. This condition could lead to loss of control.

**DATES:** This AD becomes effective on December 30, 2008.

On December 30, 2008, the Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD.

**ADDRESSES:** To get the service information identified in this AD, contact Maule Aerospace Technology, Inc., 2099 Georgia Highway 133 South, Moultrie, Georgia 31788; *telephone:* (229) 985-2045; *fax:* (229) 985-2048; *e-mail:* [engineering@mauleairinc.com](mailto:engineering@mauleairinc.com); Internet: [http://www.mauleairinc.com/service\\_bulletins.htm](http://www.mauleairinc.com/service_bulletins.htm).

To view the AD docket, go to U.S. Department of Transportation, Docket Operations, M-30, West Building

Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, or on the Internet at <http://www.regulations.gov>. The docket number is FAA-2008-0892; Directorate Identifier 2008-CE-049-AD.

**FOR FURTHER INFORMATION CONTACT:**

Cindy Lorenzen, Aerospace Engineer, One Crown Center, 1895 Phoenix Blvd., Suite 450, Atlanta, Georgia 30349; *telephone:* (770) 703-6078; *fax:* (770) 703-6097; *e-mail:* [cindy.lorenzen@faa.gov](mailto:cindy.lorenzen@faa.gov); or

Gerald Avella, Aerospace Engineer, One Crown Center, 1895 Phoenix Blvd., Suite 450, Atlanta, Georgia 30349; *telephone:* (770) 703-6066; *fax:* (770) 703-6097; *e-mail:* [gerald.avella@faa.gov](mailto:gerald.avella@faa.gov).

**SUPPLEMENTARY INFORMATION:**

**Discussion**

On August 12, 2008, we issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to certain Maule Aerospace Technology, Inc. M-4, M-5, M-6, and M-7 series and Model M-8-235 airplanes. This proposal was published in the **Federal Register** as a notice of proposed rulemaking (NPRM) on August 19, 2008 (73 FR 48314). The NPRM proposed to require you to paint the top of the rear elevator control horn, the elevator control cable end attached to the top of the rear control horn, the bottom of the forward elevator control horn, and the elevator control cable end attached to the bottom of the forward control horn. The NPRM also proposed to require you to insert a supplement into your maintenance program (maintenance manual).

**Comments**

We provided the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal and FAA's response to each comment:

**Comment Issue No. 1: The AD Should Not Be Issued**

An anonymous commenter suggests that the AD is unnecessary because mechanics should already know to always check the rigging of the flight controls anytime the cables have been disconnected and re-connected. The

commenter requests that we not issue the AD.

While we agree mechanics should always check the rigging of the control cables for proper operation anytime the cables have been re-connected to the airplane, there have been instances where this has not happened and it has led to accidents. To minimize the possibility of incorrect flight control system assembly, this AD requires color coding the cables and control horns, which will provide a visual aid to the mechanic during reassembly.

We are not changing the AD as a result of this comment.

**Comment Issue No. 2: Removal of the Word "Horn" From Paragraph (e)(1)(iii)**

Mr. Geoffrey Sharp comments that the word "horn" does not make sense in the painting instruction requiring painting of "the bottom of the forward elevator control horn." We infer that he is requesting that we remove the word "horn" from paragraph (e)(1)(iii) of the AD.

We do not agree with the comment. The instructions to paint the elevator control horn are correct. The horn is the connecting piece for the control cables. However, upon review we noticed that the word horn was omitted from paragraph (e)(1)(iv) of the proposed AD.

We are changing paragraph (e)(1)(iv) of this AD by adding the word "horn" to the end of the sentence. We have also made this change in the Summary and Discussion sections of this AD.

**Conclusion**

We have carefully reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed except for the changes previously discussed and minor editorial corrections. We have determined that these minor corrections:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

**Costs of Compliance**

We estimate that this AD affects 1,765 airplanes in the U.S. registry.

We estimate the following costs to do the modification:

Labor cost	Parts cost	Total cost per airplane	Total cost on U.S. operators
1 work-hour × \$80 per hour = \$80 .....	\$20	\$100	\$176,500

**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 AD.

**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" 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 summary of the costs to comply with this AD (and other information as included in the Regulatory Evaluation) and placed it in the AD Docket. You may get a copy of this summary by sending a request to us at the address listed under **ADDRESSES**. Include "Docket No. FAA-2008-0892; Directorate Identifier 2008-CE-049-AD" in your request.

**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 Federal Aviation Administration 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. FAA amends § 39.13 by adding a new AD to read as follows:

**2008-24-02 Maule Aerospace Technology, Inc.:** Amendment 39-15742; Docket No. FAA-2008-0892; Directorate Identifier 2008-CE-049-AD.

**Effective Date**

- (a) This AD becomes effective on December 30, 2008.

**Affected ADs**

- (b) None.

**Applicability**

- (c) This AD applies to the following airplane models and serial numbers that are certificated in any category:

Model	Serial Nos.
Bee Dee M-4 .....	All serial numbers.
M-4 .....	All serial numbers.
M-4-180C .....	All serial numbers.
M-4-180V .....	47001T through 47014T.
M-4-210 .....	All serial numbers.
M-4-210C .....	All serial numbers.
M-4-210S .....	All serial numbers.
M-4-220C .....	All serial numbers.
M-4-220S .....	All serial numbers.
M-4C .....	All serial numbers.
M-4S .....	All serial numbers.
M-4T .....	All serial numbers.
M-5-180C .....	All serial numbers.
M-5-200 .....	All serial numbers.
M-5-210C .....	All serial numbers.
M-5-210TC .....	All serial numbers.
M-5-220C .....	All serial numbers.
M-5-235C .....	All serial numbers.
M-6-180 .....	8020C, 8043C, 8065C through 8067C.
M-6-235 .....	7249C, 7356C, 7379C through 7444C, 7446C through 7450C, 7452C through 7459C, 7461C through 7466C, 7468C, 7469C, 7471C through 7475C, 7488C through 7514C, 7516C through 7522C.
M-7-235 .....	4001C through 4132C, 12001C, 12002C.
M-7-235A .....	24001C.
M-7-235B .....	23001C through 23105C.
M-7-235C .....	25001C through 25106C.
M-7-260 .....	26001C through 26021C.
M-7-260C .....	30001C through 30040C.
M-7-420A .....	35001C.
M-7-420AC .....	29001C, 29003C through 29007C.
M-8-235 .....	15001C through 15006C.
MT-7-235 .....	18001C through 18097C, 18099C, 18100C.
MT-7-260 .....	27001C through 27014C.
MT-7-420 .....	51001C, 51002C.
MX-7-160 .....	19001C through 19046C.
MX-7-160C .....	34001C.
MX-7-180 .....	11001C through 11097C.
MX-7-180A .....	20001C through 20064C.
MX-7-180AC .....	33001C through 33010C.

Model	Serial Nos.
MX-7-180B .....	22001C through 22025C, 22027C.
MX-7-180C .....	28001C through 28027C.
MX-7-235 .....	10001C through 10122C.
MX-7-420 .....	13001C through 13003C.
MXT-7-160 .....	17001C through 17008C.
MXT-7-180 .....	14000C through 14125C.
MXT-7-180A .....	21001C through 21096C.

**Unsafe Condition**

(d) This AD results from two reports of accidents where reversed elevator control rigging was a factor. We are issuing this AD

to reduce the likelihood of a mechanic rigging the elevator controls backwards, which could result in elevator movement in the opposite direction from control input. This failure could lead to loss of control.

**Compliance**

(e) To address this problem, you must do the following, unless already done:

Actions	Compliance	Procedures
<p>(1) Using yellow enamel paint, color code the following:</p> <ul style="list-style-type: none"> <li>(i) the top of the rear elevator control horn;</li> <li>(ii) the elevator control cable end attached to the top of the rear control horn;</li> <li>(iii) the bottom of the forward elevator control horn; and</li> <li>(iv) the elevator control cable end attached to the bottom of the forward control horn</li> </ul> <p>(2) Insert the following text into the rigging procedure section of your FAA-approved maintenance program (e.g. maintenance manual):                      “CAUTION—BEFORE FLIGHT WHENEVER ELEVATOR CABLES ARE RECONNECTED OR NEW CABLES INSTALLED: Always check operation of elevators after a cable reconnect by pulling back on the control and ascertain that the elevators are in the UP position.”</p>	<p>Before the next time the elevator control cable is disconnected for any reason or within the next 12 calendar months after December 30, 2008 (the effective date of this AD), whichever occurs first.</p> <p>Before the next time the elevator control cable is disconnected for any reason or within the next 12 calendar months after December 30, 2008 (the effective date of this AD), whichever occurs first.</p>	<p>Follow Maule Aerospace Technology, Inc. Mandatory Service Bulletin No. 30, dated March 4, 2008.</p> <p>Follow Maule Aerospace Technology, Inc. Mandatory Service Bulletin No. 30, dated March 4, 2008. You may insert a copy of this AD or you may insert the text located on the bottom of page 3 of Maule Aerospace Technology, Inc. Mandatory Service Bulletin No. 30, dated March 4, 2008, into the FAA-approved maintenance program (e.g., 1 maintenance manual).</p>

**Alternative Methods of Compliance (AMOCs)**

(f) The Manager, Atlanta Aircraft Certification Office (ACO), 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: Gerald Avella, Aerospace Engineer, One Crown Center, 1895 Phoenix Blvd., Suite 450, Atlanta, Georgia 30349; telephone: (770) 703-6066; fax: (770) 703-6097; e-mail: gerald.avella@faa.gov*. 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**

(g) You must use Maule Aerospace Technology, Inc. Mandatory Service Bulletin No. 30, dated March 4, 2008, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Maule Aerospace Technology, Inc., 2099 Georgia Highway 133 South, Moultrie, Georgia 31788; *telephone: (229) 985-2045; fax: (229) 985-2048; e-mail:*

*engineering@mauleairinc.com*; Internet: <http://www.mauleairinc.com>.

(3) You may review copies at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Kansas City, Missouri 64106; 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/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Kansas City, Missouri, on November 10, 2008.

**James E. Jackson,**  
*Acting Manager, Small Airplane Directorate, Aircraft Certification Service.*

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**BILLING CODE 4910-13-P**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

[Docket No. FAA-2008-0152; Directorate Identifier 2007-NM-348-AD; Amendment 39-15745; AD 2008-24-05]

RIN 2120-AA64

**Airworthiness Directives; Boeing Model 737-400, -500, -600, -700, -700C, -800, and -900 Series Airplanes**

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

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Boeing Model 737-400, -500, -600, -700, -700C, -800, and -900 series airplanes. This AD requires an inspection to determine the part and serial numbers of the windshield wiper motors for the pilot’s and first officer’s windshields, and doing applicable corrective actions. This AD results from two reports that the left and right windshield wipers stopped working in flight. We are issuing this AD to prevent