



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2016-4256; Directorate Identifier 2016-CE-002-AD; Amendment 39-18512; AD 2016-10-01]**

**RIN 2120-AA64**

**Airworthiness Directives; M7 Aerospace LLC Airplanes**

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

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for all M7 Aerospace LLC Models SA226-AT, SA226-T, SA226-T (B), SA226-TC, SA227-AC (C-26A), SA227-AT, SA227-BC (C-26A), SA227-CC, SA227-DC (C-26B), and SA227-TT airplanes. We received reports of failed elevator control rod ends due to corrosion and lack of lubrication. This AD requires initial and repetitive inspections and lubrication of the elevator control rod ends and bearings with replacement as necessary. We are issuing this AD to correct the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact M7 Aerospace LLC, 10823 NE Entrance Road, San Antonio, Texas 78216; phone: (210) 824-9421; fax: (210) 804-7766; Internet: <http://www.elbitsystems-us.com>; email: [MetroTech@M7Aerospace.com](mailto:MetroTech@M7Aerospace.com). You may view this referenced service information at the

FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call 816-329-4148.

It is also available on the internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-4256.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-4256; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Andrew McAnaul, Aerospace Engineer, FAA, ASW-143 (c/o San Antonio MIDO), 10100 Reunion Place, Suite 650, San Antonio, Texas 78216; phone: (210) 308-3365; fax: (210) 308-3370; email: [andrew.mcanaul@faa.gov](mailto:andrew.mcanaul@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all M7 Aerospace LLC Models SA226-AT, SA226-T, SA226-T(B), SA226-TC, SA227-AC (C-26A), SA227-AT, SA227-BC (C-26A), SA227-CC, SA227-DC (C-26B), and SA227-TT airplanes. The NPRM published in the Federal Register on March 4, 2016 (81 FR 11469). The NPRM was prompted by reports of broken elevator control rod link assemblies between the elevator torque tube and the elevator quadrant due to corrosion and lack of lubrication on M7 Aerospace SA26,

SA226, and SA227 airplanes. The NPRM proposed to require initial and repetitive inspections of the elevator control rod ends and bearings with replacement as necessary. We are issuing this AD to correct the unsafe condition on these products.

### **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (81 FR 11469, March 4, 2016) or on the determination of the cost to the public.

### **Conclusion**

We reviewed the relevant data and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (81 FR 11469, March 4, 2016) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (81 FR 11469, March 4, 2016).

### **Related Service Information under 1 CFR part 51**

We reviewed M7 Aerospace Service Bulletin (SB) 226-27-080 R1, M7 Aerospace LLC SB 227-27-060 R1, and M7 Aerospace LLC SB CC7-27-032 R1, all Issued: November 5, 2015, and Revised: February 23, 2016. The service information describes procedures for inspection of the elevator control link assemblies between the elevator torque tubes and the elevator quadrant for frozen (stiff, hard to move) bearings or broken/cracked links (rod ends) with instructions for lubrication and replacement if necessary. All of the related service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this AD.

### Costs of Compliance

We estimate that this AD affects 350 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

#### Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection and lubrication	2 work-hours X \$85 per hour = \$170	Not applicable	\$170	\$59,500

We estimate the following costs to do any necessary repairs/replacements that would be required based on the results of the inspection. We have no way of determining the number of airplanes that might need these repairs/replacements:

#### On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replace Rod End	4 work-hours X \$85 per hour = \$340	\$30	\$370

### 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**

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),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) 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.

### **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):

2016-10-01 **M7 Aerospace LLC**: Amendment 39-18512; Docket No. FAA-2016-4256;  
Directorate Identifier 2016-CE-002-AD.

(a) **Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) **Affected ADs**

None.

(c) **Applicability**

This AD applies to M7 Aerospace LLC Models SA226-AT, SA226-T, SA226-T (B), SA226-TC, SA227-AC (C-26A), SA227-AT, SA227-BC (C-26A), SA227-CC, SA227-DC (C-26B), and SA227-TT airplanes, all serial numbers, certificated in any category.

(d) **Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 2730, Elevator Control System.

(e) **Unsafe Condition**

This AD was prompted by reports of failed elevator control rod ends due to corrosion and lack of lubrication. We are issuing this AD to require initial and repetitive inspections and lubrication of the elevator control rod ends and bearings with replacement as necessary. We are proposing this AD to correct the unsafe condition on these products.

**(f) Compliance**

Comply with paragraphs (g)(1) through (g)(5) of this AD using the following service bulletins within the compliance times specified, unless already done:

(1) For Models SA226-AT, SA226-T, SA226-T(B), and SA226-TC: M7 Aerospace LLC Service Bulletin (SB) 226-27-080 R1, Issued: November 5, 2015, and Revised: February 23, 2016;

(2) For Models SA227-AC (C-26A), SA227-AT, SA227-BC (C-26A), and SA227-TT: M7 Aerospace LLC SB 227-27-060 R1, Issued: November 5, 2015, and Revised: February 23, 2016; or

(3) For Models SA227-CC and SA227-DC (C-26B): M7 Aerospace LLC SB CC7-27-032 R1, Issued: November 5, 2015, and Revised: February 23, 2016.

**(g) Actions**

(1) If abnormally high resistance is reported when operating the elevators, before further flight after [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD), inspect and lubricate installed elevator control links following paragraph 2.A. of the Accomplishment Instructions of the service bulletins identified in paragraphs (f)(1), (f)(2), or (f)(3) of this AD, as applicable.

(2) Remove the elevator control links and inspect following paragraph 2.B. (and 2.C. when applicable) and lubricate the bearings following paragraph 2.E. of the Accomplishment Instructions of the service bulletins identified in paragraphs (f)(1), (f)(2), or (f)(3) of this AD, as applicable, at whichever of the following occurs first:

(i) At the next Zone related Phase or Letter Check inspection after [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD) or within the next 600 hours time-in-service after [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD), whichever occurs later; or

(ii) Within the next 6 months after [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD).

(3) Repetitively remove and inspect the elevator control links not to exceed every 12 months following any inspection required in paragraph (g)(1) or (g)(2) of this AD following paragraph 2.B. (and 2.C. when applicable) and lubricate the bearings following paragraph 2.E. of the Accomplishment Instructions of the service bulletins identified in paragraphs (f)(1), (f)(2), or (f)(3) of this AD, as applicable.

(4) If during any inspection required in paragraphs (g)(1), (g)(2) or (g)(3) of this AD, any link assemblies between the elevator torque tubes and the elevator quadrant are found to have frozen (stiff, hard to move) bearings or broken/cracked links (rod ends), before further flight, replace the rod ends following paragraph 2.D. and lubricate the bearings following with paragraph 2.E. of the Accomplishment Instructions of the service bulletins identified in paragraphs (f)(1), (f)(2), or (f)(3) of this AD, as applicable.

(5) Repetitively lubricate the rod end bearings (male and female) on both elevator control link assemblies following the time limits in paragraph 1.D.4) of the applicable SB, but not to exceed every 6 months, and following the procedures in paragraph 2.E. of the Accomplishment Instructions of the service bulletins identified in paragraphs (f)(1), (f)(2), or (f)(3) of this AD, as applicable.



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

(1) The Manager, Fort Worth Airplane Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (i) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(i) Related Information**

For more information about this AD, contact Andrew McAnaul, Aerospace Engineer, FAA, ASW-143 (c/o San Antonio MIDO), 10100 Reunion Place, Suite 650, San Antonio, Texas 78216; phone: (210) 308-3365; fax: (210) 308-3370; email: [andrew.mcanaul@faa.gov](mailto:andrew.mcanaul@faa.gov).

**(j) Material Incorporated by Reference**

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

- (i) M7 Aerospace Service Bulletin (SB) 226-27-080 R1, dated February 23, 2016;
- (ii) M7 Aerospace LLC SB 227-27-060 R1, dated February 23, 2016; and
- (iii) M7 Aerospace LLC SB CC7-27-032 R1, dated February 23, 2016.

(3) For M7 Aerospace LLC service information identified in this AD, contact M7 Aerospace LLC, 10823 NE Entrance Road, San Antonio, Texas 78216; phone: (210) 824-9421; fax: (210) 804-7766; Internet: <http://www.elbitsystems-us.com>; email: [MetroTech@M7Aerospace.com](mailto:MetroTech@M7Aerospace.com).

(4) You may view this service information at FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call 816-329-4148.

(5) You may view this service information that is incorporated by reference 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 Kansas City, Missouri, on May 3, 2016.

David R. Showers,  
Acting Manager, Small Airplane Directorate,  
Aircraft Certification Service.  
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