

[Federal Register Volume 80, Number 214 (Thursday, November 5, 2015)]

[Rules and Regulations]

[Pages 68432-68434]

From the Federal Register Online via the Government Publishing Office [www.gpo.gov]

[FR Doc No: 2015-27919]

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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2015-1425; Directorate Identifier 2014-NM-185-AD; Amendment 39-18312; AD 2015-22-07]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Lockheed Martin Corporation/Lockheed Martin Aeronautics Company Airplanes**

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

**ACTION:** Final rule.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Lockheed Martin Corporation/Lockheed Martin Aeronautics Company Model 188 series airplanes. This AD was prompted by an evaluation by the design approval holder (DAH) indicating that the circumferential fuselage splice at fuselage-station (FS) 695 is subject to widespread fatigue damage (WFD). This AD requires an inspection for corrosion and previous repairs, severed stringers, cracking, and loose or distressed fasteners of the forward and aft ends of the stringer splices of certain stringers, inspection for cracking and modification of certain fastener holes common to the stringer and splice member at the forward and aft ends of the splice, and related investigative and corrective actions if necessary. We are issuing this AD to prevent loss of residual strength of the circumferential fuselage splice at FS 695, which could lead to rapid decompression of the cabin and potential loss of the airplane.

**DATES:** This AD is effective December 10, 2015.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of December 10, 2015.

**ADDRESSES:** For service information identified in this AD, contact Lockheed Martin Corporation/Lockheed Martin Aeronautics Company, Airworthiness Office, Dept. 6A0M, Zone 0252, Column P-58, 86 S. Cobb Drive, Marietta, GA 30063; phone: 770-494-5444; fax: 770-494-5445; email: [ams.portal@lmco.com](mailto:ams.portal@lmco.com); Internet <http://www.lockheedmartin.com/ams/tools/TechPubs.html>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-1425.

## **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-2015-1425; 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 Docket 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:** Carl Gray, Aerospace Engineer, Airframe Branch, ACE-117A, FAA, Atlanta Aircraft Certification Office (ACO), 1701 Columbia Avenue, College Park, GA 30337; phone: 404-474-5554; fax: 404-474-5605; email: [carl.w.gray@faa.gov](mailto:carl.w.gray@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 certain Lockheed Martin Corporation/Lockheed Martin Aeronautics Company Model 188 series airplanes. The NPRM published in the Federal Register on May 28, 2015 (80 FR 30391). The NPRM was prompted by an evaluation by the DAH indicating that a certain circumferential fuselage splice is subject to WFD. The NPRM proposed to require an inspection for corrosion and previous repairs, severed stringers, cracking, and loose or distressed fasteners of the forward and aft ends of the stringer splices of certain stringers, inspection for cracking and modification of certain fastener holes common to the stringer and splice member at the forward and aft ends of the splice, and related investigative and corrective actions if necessary. We are issuing this AD to prevent loss of residual strength of a certain circumferential fuselage splice, which could lead to rapid decompression of the cabin and potential loss of the airplane.

### **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (80 FR 30391, May 28, 2015) 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 (80 FR 30391, May 28, 2015) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (80 FR 30391, May 28, 2015).

### **Related Service Information Under 1 CFR Part 51**

We reviewed Lockheed Martin Electra Service Bulletin 88/SB-722, dated April 30, 2014. This service bulletin describes procedures for doing the following actions:

- A general visual inspection (GVI) for corrosion and previous repairs, severed stringers, cracking, and loose or distressed fasteners of the forward and aft ends of the stringer splices of stringers 1-7 and 66-72, and corrective actions if necessary.
- At stringers 1-7 and 66-72, removing the four rivets common to the stringer and splice member at the forward and aft ends of the splice and doing a bolt hole eddy current (BHEC) inspection or an equivalent inspection procedure for cracking in each of the fastener holes, and corrective actions if necessary.
- Corrective actions for cracked holes include reaming to the maximum permissible hole diameter of the next larger size rivet. If a crack indication remains after reaming, this service information specifies repairing the cracked stringer.
- If a severed stringer is found during the GVI, doing related investigative actions of an eddy current surface scan inspection for cracking of the fuselage skin at the skin-to-stringer attachments immediately forward and aft of the stringer break and confirming skin cracks with a dye penetrant inspection. Corrective actions include repairing the severed stringer or skin cracks.
- For holes without crack indications, other specified actions include modifying the fastener holes by reaming to a certain maximum permissible hole diameter of the same size rivet and installing replacement fasteners; or if the original hole is larger than the maximum permissible diameter, installing the next rivet size and type.

This 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 4 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
Inspections and Modification	18 work-hours × \$85 per hour = \$1,530	\$5,000	\$6,530	\$26,120

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this AD.

### 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):



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**2015-22-07 Lockheed Martin Corporation/Lockheed Martin Aeronautics Company:**  
Amendment 39-18312 ; Docket No. FAA-2015-1425; Directorate Identifier 2014-NM-185-AD.

**(a) Effective Date**

This AD is effective December 10, 2015.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Lockheed Martin Corporation/Lockheed Martin Aeronautics Company Model 188A and 188C airplanes, certificated in any category, serial numbers 1001 and subsequent.

**(d) Subject**

Air Transport Association (ATA) of America Code 53, Fuselage.

**(e) Unsafe Condition**

This AD was prompted by an evaluation by the design approval holder (DAH) indicating that the circumferential fuselage splice at fuselage-station (FS) 695 is subject to widespread fatigue damage (WFD). We are issuing this AD to prevent loss of residual strength of the circumferential fuselage splice at FS 695, which could lead to rapid decompression of the cabin and potential loss of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Inspections, Modification, Related Investigative Actions, and Corrective Actions**

Before the accumulation of 38,200 total flight hours or within 30 days after the effective date of this AD, whichever occurs later: Do a general visual inspection for corrosion and previous repairs, severed stringers, cracking, and loose or distressed fasteners of the forward and aft ends of the stringer splices of stringers 1-7 and 66-72; remove the four rivets common to the stringer and splice member at the forward and aft ends of the splice and do a bolt hole eddy current inspection or an equivalent inspection procedure for cracking in each of the fastener holes; modify the fastener holes; and do all applicable related investigative and corrective actions and other specified actions; in accordance with the Accomplishment Instructions of Lockheed Martin Electra Service Bulletin 88/SB-722, dated April 30, 2014, except as specified in paragraph (h) of this AD. Do all applicable related investigative and corrective actions and other specified actions before further flight. If any repairs exceed the repair limits specified in Lockheed Martin Electra Service Bulletin 88/SB-722,

dated April 30, 2014, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

**(h) Corrective Action**

(1) If, during any inspection required by paragraph (g) of this AD, any corrosion or previous repair is found, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(2) If, during any inspection required by paragraph (g) of this AD, any loose or distressed fastener is found, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

**(i) Exception**

Although Lockheed Martin Electra Service Bulletin 88/SB-722, dated April 30, 2014, specifies to submit certain information to the manufacturer, this AD does not include that requirement.

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

(1) The Manager, Atlanta ACO, 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 (k) 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.

**(k) Related Information**

For more information about this AD, Carl Gray, Aerospace Engineer, Airframe Branch, ACE-117A, FAA, Atlanta ACO, 1701 Columbia Avenue, College Park, GA 30337; phone: 404-474-5554; fax: 404-474-5605; email: carl.w.gray@faa.gov.

**(l) 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) Lockheed Martin Electra Service Bulletin 88/SB-722, dated April 30, 2014.

(ii) Reserved.

(3) For Lockheed service information identified in this AD, contact Lockheed Martin Corporation/Lockheed Martin Aeronautics Company, Airworthiness Office, Dept. 6A0M, Zone 0252, Column P-58, 86 S. Cobb Drive, Marietta, GA 30063; phone: 770-494-5444; fax: 770-494-5445; email: ams.portal@lmco.com; Internet <http://www.lockheedmartin.com/ams/tools/TechPubs.html>.

(4) You may view this service information at FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(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 Renton, Washington, on October 22, 2015.  
Jeffrey E. Duven,  
Manager, Transport Airplane Directorate,  
Aircraft Certification Service.