



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2015-1419; Directorate Identifier 2014-NM-183-AD; Amendment 39-18279; AD 2015-20-01]**

**RIN 2120-AA64**

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

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

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for all 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 the left and right lower surface panels of the wings are subject to widespread fatigue damage (WFD). This AD requires repetitive inspections for cracking at these panels, and repair if necessary. The AD also requires a one-time bolt-hole eddy current inspection of all open holes for cracking, repair if necessary, and modification. We are issuing this AD to prevent fatigue cracking of the left and right lower surface panels of the wings, which could result in reduced structural integrity of the airplane.

**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 a certain publication 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 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; telephone 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-2015-1419.

### **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-2015-1419; 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 all Lockheed Martin Corporation/Lockheed Martin

Aeronautics Company Model 188 series airplanes. The NPRM published in the Federal Register on June 5, 2015 (80 FR 32069). The NPRM was prompted by an evaluation by the DAH indicating the left and right lower surface panels of the wings are subject to WFD. The NPRM proposed to require repetitive inspections for cracking at these panels, and repair if necessary. The NPRM also proposed to require a one-time bolt-hole eddy current inspection of all open holes for cracking, repair if necessary, and modification. We are issuing this AD to prevent fatigue cracking of the left and right lower surface panels of the wings, which could result in reduced structural integrity 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 32069, June 5, 2015) or on the determination of the cost to the public.

### **Conclusion**

We reviewed the available 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 32069, June 5, 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 32069, June 5, 2015).

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

We reviewed Lockheed Martin Electra Service Bulletin 88/SB-707C, Revision C, dated April 30, 2014. The service information describes procedures for repetitive inspections for cracking of the left and right lower surface panels of the wings on the inboard and outboard sides of the buttock line (BL) 65 splice joint, and repair. This service information also describes procedures for a one-time bolt-hole eddy current

inspection of all open holes for cracking, repair, and modification of the BL 65 wing root joint. 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**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
X-ray or ultrasonic inspections	Up to 40 work-hours X \$85 per hour = up to \$3,400	\$0	Up to \$3,400	Up to \$13,600
Bolt hole inspections	60 work-hours X \$85 per hour = \$5,100	\$0	\$5,100	\$20,400
Modification	400 work-hours X \$85 per hour = \$ 34,000	\$5,000	\$39,000	\$156,000

We estimate the following costs to do any necessary repairs that would be required based on the results of the inspections. We have no way of determining the number of aircraft that might need these repairs.

**On-condition costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
Repair	500 work-hours X \$85 per hour = \$42,500	\$0	\$42,500

### **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 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):

#### **2015-20-01 Lockheed Martin Corporation/Lockheed Martin Aeronautics Company:**

Amendment 39-18279; Docket No. FAA-2015-1419; Directorate Identifier 2014-NM-183-AD.

#### **(a) Effective Date**

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

#### **(b) Affected ADs**

This AD affects AD 81-03-53R1, Amendment 39-4301 (Docket No. 81-NW-97-AD) (47 FR 3347, January 25, 1982).

#### **(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 57, Wings.

**(e) Unsafe Condition**

This AD was prompted by an evaluation by the design approval holder indicating the left and right lower surface panels of the wings are subject to widespread fatigue damage. We are issuing this AD to prevent fatigue cracking of the left and right lower surface panels of the wings on the inboard and outboard sides of the buttock line (BL) 65 splice joint, which could result in reduced structural integrity of the airplane.

**(f) Compliance**

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

**(g) Inspections and Repair**

At the later of the times specified in paragraphs (g)(1) and (g)(2) of this AD: Inspect for cracking of the inboard and outboard sides of the lower splice joint at BL 65, using X-ray, ultrasonic, and bolt-hole eddy current inspection techniques, as applicable, and repair any cracking found, in accordance with the Accomplishment Instructions of Lockheed Martin Electra Service Bulletin 88/SB-707C, Revision C, dated April 30, 2014. All applicable repairs must be done before further flight. Repeat the inspections at intervals not to exceed 2,000 flight hours, until the modification required by paragraph (h) of this AD has been done. Accomplishing the inspections required by this paragraph terminates the inspections required by paragraphs A. and B. of AD 81-03-53R1, Amendment 39-4301 (Docket No. 81-NW-97-AD) (47 FR 3347, January 25, 1982).

(1) Before the accumulation of 19,000 total flight hours.

(2) Within 600 flight hours or 365 days after the effective date of this AD, whichever occurs first.

**(h) Modification**

At the later of the times specified in paragraphs (h)(1) and (h)(2) of this AD: Do a bolt-hole eddy current inspection of all open holes for cracking, repair any cracking

found before further flight, and modify the BL 65 wing root lower joint, in accordance with the Accomplishment Instructions of Lockheed Martin Electra Service Bulletin 88/SB-707C, Revision C, dated April 30, 2014. Accomplishing this modification terminates the inspections required by paragraph (g) of this AD.

(1) Before the accumulation of 29,000 total flight hours.

(2) Within 600 flight hours or 365 days after the effective date of this AD, whichever occurs first.

**(i) No Reporting Required**

Although Lockheed Martin Electra Service Bulletin 88/SB-707C, Revision C, dated April 30, 2014, specifies to submit a report of crack findings, this AD does not include that requirement.

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

(1) 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. 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, contact 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-707C, Revision C, dated April 30, 2014.

(ii) Reserved.

(3) 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; telephone 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>.

(4) You may view this 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.

(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 September 17, 2015.

John P. Piccola, Jr.,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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