



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2016-9572; Directorate Identifier 2016-NM-151-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Airplanes**

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

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to supersede Airworthiness Directive (AD) 2014-08-02 for certain Airbus Model A300 B4-600 and A300 B4-600R series airplanes. AD 2014-08-02 requires modifying the profile of stringer run-outs of both wings, including a high frequency eddy current (HFEC) inspection of the fastener holes for defects, and repairs if necessary. Since we issued AD 2014-08-02, further analysis in the context of widespread fatigue damage (WFD) concluded that a shorter compliance time is necessary to meet specified requirements to address WFD. This proposed AD would retain the actions required by AD 2014-08-02 and would revise the compliance times. We are proposing this AD to address the unsafe condition on these products.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Airbus SAS, Airworthiness Office – EAW, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet: <http://www.airbus.com>. 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.

### **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-2016-9572; 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 proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-2125; fax 425-227-1149.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2016-9572; Directorate Identifier 2016-NM-151-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

**Discussion**

Fatigue damage can occur locally, in small areas or structural design details, or globally, in widespread areas. Multiple-site damage is widespread damage that occurs in a large structural element such as a single rivet line of a lap splice joining two large skin panels. Widespread damage can also occur in multiple elements such as adjacent frames or stringers. Multiple-site damage and multiple-element damage cracks are typically too

small initially to be reliably detected with normal inspection methods. Without intervention, these cracks will grow, and eventually compromise the structural integrity of the airplane. This condition is known as widespread fatigue damage. It is associated with general degradation of large areas of structure with similar structural details and stress levels. As an airplane ages, WFD will likely occur, and will certainly occur if the airplane is operated long enough without any intervention.

The FAA's WFD final rule (75 FR 69746, November 15, 2010) became effective on January 14, 2011. The WFD rule requires certain actions to prevent structural failure due to WFD throughout the operational life of certain existing transport category airplanes and all of these airplanes that will be certificated in the future. For existing and future airplanes subject to the WFD rule, the rule requires that design approval holders (DAHs) establish a limit of validity (LOV) of the engineering data that support the structural maintenance program. Operators affected by the WFD rule may not fly an airplane beyond its LOV, unless an extended LOV is approved.

The WFD rule (75 FR 69746, November 15, 2010) does not require identifying and developing maintenance actions if the DAHs can show that such actions are not necessary to prevent WFD before the airplane reaches the LOV. Many LOVs, however, do depend on accomplishment of future maintenance actions. As stated in the WFD rule, any maintenance actions necessary to reach the LOV will be mandated by airworthiness directives through separate rulemaking actions.

In the context of WFD, this action is necessary to enable DAHs to propose LOVs that allow operators the longest operational lives for their airplanes, and still ensure that

WFD will not occur. This approach allows for an implementation strategy that provides flexibility to DAHs in determining the timing of service information development (with FAA approval), while providing operators with certainty regarding the LOV applicable to their airplanes.

On April 2, 2014, we issued AD 2014-08-02, Amendment 39-17826 (79 FR 21392, April 16, 2014) (“AD 2014-08-02”), for certain Airbus Model A300 B4-600 and A300 B4-600R series airplanes. AD 2014-08-02 was prompted by reports of cracks found in certain bottom wing skin stringers during full-scale fatigue testing and in service. AD 2014-08-02 requires modifying the profile of stringer run-outs of both wings, including a high frequency eddy current inspection of the fastener holes for defects, and repairs if necessary. We issued AD 2014-08-02 to prevent cracking in the bottom wing skin stringers, which could result in reduced structural integrity of the wings.

Since we issued AD 2014-08-02, further analysis in the context of WFD concluded that a shorter compliance time is necessary to meet specified requirements to address WFD.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2016-0174, dated August 30, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Airbus Model A300 B4-600 and A300 B4-600R series airplanes. The MCAI states:

During full-scale fatigue testing, cracks were detected in the bottom wing skin stringers at Rib 14. In addition, operators have also reported finding cracks in the same area on in-service aeroplanes.

This condition, if not detected and corrected, could impair the structural integrity of the wings.

Additional analysis results showed that the improved design of the stringer run-out was necessary for aeroplanes operating beyond the Extended Service Goal 1.

To address this unsafe condition, Airbus issued Service Bulletin (SB) A300-57-6046 Revision 01 to provide modification instructions, and EASA issued AD 2013-0008 (later revised) [which corresponds to FAA AD 2014-08-02], to require the removal of the stringer end run-out plate at stringer 19 on the bottom wing skin and a re-profiling modification of the stringers 10, 11, 12, 17 and 19.

Since that [EASA] AD was issued, further analysis in the context of Widespread Fatigue Damage (WFD), concluded that a threshold reduction is necessary to meet the WFD requirements. Consequently, Airbus revised SB A300-57-6046 accordingly (now at Revision 03).

For the reasons described above, this [EASA] AD retains the requirements of EASA AD 2013-0008R1, which is superseded, but reduces the modification threshold, and introduces a pre-mod High Frequency Eddy Current (HFEC) inspection.

You may examine the MCAI in the AD docket on the Internet at

<http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9572.

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

Airbus has issued Service Bulletin A300-57-6046, Revision 03, including Appendix 01, dated February 4, 2015. The service information describes procedures to modify the profile of stringer run-outs of both wings, including a HFEC inspection of the

fastener holes for defects, and repairs. It also describes new compliance times for completing the modifications. 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.

### **FAA's Determination and Requirements of this Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of these same type designs.

### **Costs of Compliance**

We estimate that this proposed AD affects 29 airplanes of U.S. registry.

The actions required by AD 2014-08-02, and retained in this proposed AD, take about 63 work-hours per product, at an average labor rate of \$85 per work-hour. Required parts cost about \$2,360 per product. Based on these figures (accounting for updated work-hour and parts cost estimates), the estimated cost of this proposed AD on U.S. operators is \$7,715 per product.

We have received no definitive data that would enable us to provide cost estimates for any on-condition actions specified in this proposed AD. We have no way of determining the number of aircraft that might need this repair.

## **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 determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 this proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the 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.

**The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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 removing Airworthiness Directive (AD) 2014-08-02, Amendment 39-17826 (79 FR 21392, April 16, 2014), and adding the following new AD:

**Airbus:** Docket No. FAA-2016-9572; Directorate Identifier 2016-NM-151-AD.

**(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

This AD replaces AD 2014-08-02, Amendment 39-17826 (79 FR 21392, April 16, 2014) (“AD 2014-08-02”).

**(c) Applicability**

This AD applies to Airbus Model A300-B4-601, B4-603, B4-620, and B4-622 airplanes, and Model A300-B4-605R and B4-622R airplanes, certificated in any category, except airplanes on which Airbus Modification 10324 or 10325 has been embodied in production.

**(d) Subject**

Air Transport Association (ATA) of America Code 57, Wings.

**(e) Reason**

This AD was prompted by an evaluation by the design approval holder (DAH) indicating that the wing skin stringers are subject to widespread fatigue damage (WFD). We are issuing this AD to prevent cracking in the bottom wing skin stringers, which could result in reduced structural integrity of the wings.

**(f) Compliance**

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

**(g) Retained Modification of Rib 14, with Revised Compliance Time and Service Information**

This paragraph restates the requirements of paragraph (g) of AD 2014-08-02, with revised compliance time and service information. At the time specified in paragraph (g)(1) or (g)(2) of this AD, whichever occurs earlier, modify the profile of stringer run-outs at rib 14 of both wings, including a high frequency eddy current inspection of the fastener holes for defects and all applicable repairs, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-57-6046, Revision 02,

dated June 21, 2013; or Revision 03, including Appendix 01, dated February 4, 2015; except as required by paragraph (h) of this AD. Do all applicable repairs before further flight. As of the effective date of this AD, only Airbus Service Bulletin A300-57-6046, Revision 03, including Appendix 01, dated February 4, 2015, may be used.

(1) Before the accumulation of 42,500 total flight cycles, or within 2,000 flight cycles after May 21, 2014 (the effective date of AD 2014-08-02), whichever occurs later.

(2) Before the accumulation of 30,000 total flight cycles, or within 2,000 flight cycles after the effective date of this AD, whichever occurs later.

**(h) Retained Exception to the Service Information, with Revised Service Information**

This paragraph restates the requirements of paragraph (h) of AD 2014-08-02, with revised service information.

(1) Where Airbus Mandatory Service Bulletin A300-57-6046, Revision 02, dated June 21, 2013, specifies to contact Airbus for repair instructions, this AD requires contacting the Manager, ANM-116, International Branch, Transport Airplane Directorate, FAA, or the European Aviation Safety Agency (EASA) (or its delegated agent) for repair instructions and doing those repairs before further flight.

(2) Where Airbus Service Bulletin A300-57-6046, Revision 03, including Appendix 01, dated February 4, 2015, specifies to contact Airbus for appropriate action: Before further flight, accomplish corrective actions in accordance with the procedures specified in paragraph (j)(2) of this AD.

**(i) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using the service information specified in paragraph (i)(1), (i)(2), or (i)(3) of this AD.

(1) Airbus Service Bulletin A300-57-6046, Revision 01, dated April 18, 2011, which is not incorporated by reference in this AD.

(2) Airbus Service Bulletin A300-57-6046, dated January 18, 1994, which is not incorporated by reference in this AD.

(3) Airbus Service Bulletin A300-57-6046, Revision 02, dated June 21, 2013, which was incorporated by reference in AD 2014-08-02.

**(j) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, International Branch, ANM-116, Transport Airplane Directorate, 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 International Branch, send it to ATTN: Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-2125; fax 425-227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. 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.

**(2) Contacting the Manufacturer:** As of the effective date of this AD, for any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

**(3) Required for Compliance (RC):** Except as required by paragraph (h) of this AD: If any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

**(k) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2016-0174, dated August 30, 2016, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9572.

(2) For service information identified in this AD, contact Airbus SAS, Airworthiness Office – EAW, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet: <http://www.airbus.com>. 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. Issued in Renton, Washington, on January 12, 2017.

Michael Kaszycki,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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