



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2020-0715; Project Identifier AD-2020-00484-A; Amendment 39-21190; AD 2020-16-06]**

**RIN 2120-AA64**

**Airworthiness Directives; Aviat Aircraft Inc.**

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

**ACTION:** Final rule; request for comments.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for all Aviat Aircraft Inc. Models A-1, A-1A, A-1B, A-1C-180, and A-1C-200 airplanes.

This AD requires repetitive inspections of the forward horizontal stabilizer support assembly and the rear horizontal stabilizer support tube and reporting information to the FAA. This AD was prompted by field reports of complete failure of both the forward support assembly and the rear support tube due to fatigue. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 15 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 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The FAA must receive comments on this 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 <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Federal eRulemaking Portal: Go to <https://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: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this final rule, contact Aviat Aircraft Inc., Al Humbert, 672 South Washington Street, Afton, WY, 83110, United States; phone: (307) 885-3151; email: [dmir@aviataircraft.com](mailto:dmir@aviataircraft.com); internet: <https://aviataircraft.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 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 <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0715.

### **Examining the AD Docket**

You may examine the AD docket on the internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0715; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information.

The street address for the Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Mark Dalrymple, Aerospace Engineer, Denver ACO Branch, FAA, 26805 E. 68<sup>th</sup> Avenue, Denver, CO 80249; phone: (303) 342-1090; email: mark.dalrymple@faa.gov.

**SUPPLEMENTARY INFORMATION:**

**Discussion**

The FAA received three field reports from Aviat Aircraft Inc. of complete failure of the rear horizontal stabilizer inboard support tube. The first incident, discovered during a scheduled inspection, occurred in 2005, and the second incident, discovered while the airplane was being re-skinned, occurred in 2009. The third incident was discovered during a pre-flight inspection in 2012 and included a complete failure of the forward horizontal stabilizer inboard support assembly. Failure analysis of both parts from the 2012 incident concluded they failed due to fatigue. In addition to these complete failures of the rear support tube, the FAA received two field reports from Aviat Aircraft Inc. of cracks in the rear support tube, discovered during inspections, in 2005 and 2013. Aviat Aircraft Inc. subsequently issued Service Bulletin No. 28, Revision A, dated April 2, 2015, which requires a one-time inspection of the rear stabilizer inboard support tube in response to the multiple reports of failures and cracks.

In addition to the 2012 incident, which involved a failure of both supports, the FAA received two other field reports from Aviat Aircraft Inc. of complete failure of the forward horizontal stabilizer inboard support assembly, one in 2000 and one in 2019. In the first incident, the failure occurred during ground handling after flight. In the second incident the failure was discovered while the aircraft was being placed in a hanger.

Failure of either the forward or rear support transfers loads to the other support, increasing the likelihood that both could fail. This condition, if not addressed, could result in stabilizer departure and loss of airplane control.

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

The FAA reviewed Aviat Aircraft Inc. Service Bulletin No. 28, Revision A, dated April 2, 2015 (Aviat SB No. 28, Revision A). This service information contains procedures for inspecting and repairing the rear stabilizer support tube. 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**

The FAA is issuing this AD because it evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

### **AD Requirements**

This AD requires inspection for cracks and replacement if necessary of the forward horizontal stabilizer support assembly. This AD also requires inspecting the rear horizontal stabilizer support tube for corrosion and damage and repair if necessary. This AD also requires reporting the inspection results to the FAA.

### **FAA's Justification and Determination of the Effective Date**

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because FAA risk assessment indicates there is an unacceptable short-term risk of developing fatigue cracks through 25 percent of the cross sectional area of the rear support tube on airplanes that have engaged in tow operations. In addition, further FAA risk assessment indicates there is an unacceptable short-term risk of developing fatigue cracks through 25 percent of the cross sectional area of the forward support assembly on all airplanes. In the majority of known incidents at either location, the support failed completely. Failure of either the forward or rear support transfers loads

to the other support, increasing the likelihood that both could fail, which has occurred in one known incident. A combined failure of both the forward and rear supports could result in stabilizer departure and loss of airplane control. Therefore, the FAA finds good cause that notice and opportunity for prior public comment are impracticable. In addition, for the reasons stated above, the FAA finds that good cause exists for making this amendment effective in less than 30 days.

### **Comments Invited**

This AD is a final rule that involves requirements affecting flight safety and was not preceded by notice and an opportunity for public comment. However, we invite you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under the ADDRESSES section. Include “Docket No.FAA-2020-0715; Product Identifier AD-2020-00484-A” at the beginning of your comments. The FAA will consider all comments received by the closing date and may amend this proposed AD because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact we receive about this final rule.

### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this AD contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this AD, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this AD. Submissions containing CBI should be sent to Mark Dalrymple, Aerospace Engineer, Denver ACO Branch, FAA, 26805 E. 68<sup>th</sup> Avenue, Denver, CO 80249. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

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

### **Differences Between this AD and the Service Information**

The service information only applies to certain serial numbers of the airplane models identified in this AD, while this AD applies to all serial numbers of Aviat Aircraft Inc. Model A-1, A-1A, A-1B, A-1C-180, and A-1C-200 airplanes. The service information only requires inspecting the rear stabilizer support tube, while this AD requires inspecting the forward stabilizer support assembly in addition to the rear stabilizer support tube. The service information only requires a one-time inspection, while this AD requires both initial and repetitive inspections.

### **Costs of Compliance**

The FAA estimates that this AD affects 941 airplanes of U.S. registry.

The FAA estimates 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>
Inspect forward horizontal stabilizer inboard support assembly for cracks	1 work-hour x \$85.00 per hour = \$85.00	\$25.00	\$110.00	\$103,510.00
Inspect rear horizontal stabilizer inboard support tube weld joints for corrosion and damage	0.5 work-hour x \$85.00 per hour = \$42.50	\$0.00	\$42.50	\$39,992.50

The FAA estimates the following costs to do any necessary repairs or replacements that would be required based on the results of the inspection. The FAA has no way of determining the number of airplanes that might need these replacements:

**On-condition costs**

<b>Action</b>	<b>Labor Cost</b>	<b>Parts Cost</b>	<b>Cost per product</b>
Replace forward horizontal stabilizer support tube	2 work-hours x \$85.00 per hour = \$170.00	\$296.00	\$466.00
Repair rear horizontal stabilizer support tube weld joints and install new support tube insert	4.5 work-hours x \$85.00 per hour = \$382.50	\$163.00	\$545.50
Report if cracks are found	0.5 work-hour x \$85.00 per hour = \$42.50	\$0.00	\$42.50

## **Paperwork Reduction Act**

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately .5 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

## **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.

The FAA is 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 Flexibility Act**

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because FAA has determined that it has good cause to adopt this rule without notice and comment, RFA analysis is not required.

## **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, and
- (2) Will not affect intrastate aviation in Alaska.

## **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):

**2020-16-06 Aviat Aircraft Inc.:** Amendment 39-21190; Docket No. FAA-2020-0715; Project Identifier AD-2020-00484-A.

**(a) Effective Date**

This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Aviat Aircraft Inc., Models A-1, A-1A, A-1B, A-1C-180, and A-1C-200 airplanes, all serial numbers, certificated in any category.

**(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 5510, Horizontal Stabilizer Structure.

**(e) Unsafe Condition**

This AD was prompted by reports of complete failure of the forward horizontal stabilizer support assembly due to fatigue in combination with complete failure of the rear horizontal stabilizer support tube due to fatigue. The FAA is issuing this AD to prevent cracking of the forward and rear inboard supports, which could result in failure of the stabilizer supports, detachment of the stabilizer, and loss of airplane control.

**(f) Compliance**

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

**(g) Inspection and Repair**

For airplanes with 400 or more hours time-in-service (TIS), do the following inspection within 30 days after [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD) or within 20 hours TIS after [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD), whichever occurs first. For airplanes with less than 400 hours TIS, do the following inspections within 30 days after accumulating 400 hours TIS or within 20 hours TIS after

accumulating 400 hours TIS, whichever occurs first. After the initial inspection, repeat the inspections at intervals not to exceed 12 months or 100 hours TIS, whichever occurs first.

(1) Below and just aft of the horizontal stabilizer leading edge, remove each inspection hole cover if installed, or cut out the inside of each inspection ring if not cut out, on both sides of the fuselage. You do not need to remove the stabilizer support assembly. Locate the forward horizontal stabilizer support assembly. Using a light and a mirror or a borescope, inspect the stabilizer support assembly for cracks in the large tube portion of the assembly. Pay particular attention to the toe of the welded bushings where the stabilizer support assembly is bolted to the fuselage frame.

(i) If no cracks are found, install inspection hole cover, part number (P/N) 61659 and mounting screws, P/N 59146.

(ii) If any cracks are found, before further flight, replace the stabilizer support assembly with the same part-numbered part, either P/N 35086-501 or P/N 38086-501 as applicable. Replace both self-locking nuts with self-locking nuts that have zero hours TIS. Replacing the forward stabilizer support assembly requires removal and reinstallation of other horizontal stabilizer components. Replace all self-locking nuts with self-locking nuts that have zero hours TIS upon reinstallation of these components.

(2) Inspect the rear horizontal stabilizer support tube weld joints for corrosion and damage in accordance with the Instructions, steps 1.a. and 1.b., of Aviat Aircraft Inc. Service Bulletin No. 28, Revision A, dated April 2, 2015. If there is any corrosion or damage on a weld joint, before further flight, repair the weld joint and install a repair tube inside the stabilizer support tube as depicted in the figure on page 3 of Aviat Aircraft Inc.

Service Bulletin No. 28, Revision A, dated April 2, 2015. Repairing the rear horizontal stabilizer support tube requires removal and reinstallation of other horizontal stabilizer components. Replace all self-locking nuts with self-locking nuts that have zero hours TIS upon reinstallation of these components.

**(h) Reporting Requirement**

If a crack is found during any inspection required by paragraph (g) of this AD, within 10 days, report the following information to the FAA at the address listed in paragraph (l) of this AD:

(1) Aircraft Make and Model

(2) Aircraft N-number

(3) Aircraft Serial Number

(4) Total hours TIS

(5) Total takeoff and landing cycles (if known)

(6) Aircraft used for Tow operations? Yes or No

(7) If the Aircraft is used for Tow operations, report heaviest Glider Max Gross takeoff weight or banner maximum weight.

(8) Describe the crack location(s) and report the length of the crack(s) in the forward horizontal stabilizer support assembly, rear horizontal stabilizer support tube, or both.

**(i) Special Flight Permit**

In accordance with 14 CFR 39.23, special flight permits are prohibited.

**(j) Paperwork Reduction Act Burden Statement**

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting

for this collection of information is estimated to be approximately .5 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

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

(1) The Manager, Denver ACO Branch, 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 certification office, send it to the attention of the person identified in paragraph (l) 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.

**(l) Related Information**

For more information about this AD, contact Mark Dalrymple, Aerospace Engineer, Denver ACO Branch, FAA, 26805 E. 68th Avenue, Denver, CO 80249; phone: (303) 342-1090; email: mark.dalrymple@faa.gov.

**(m) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference 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) Aviat Aircraft Inc. Service Bulletin No. 28, Revision A, dated April 2, 2015.

(ii) [Reserved]

(3) For Aviat Aircraft Inc. service information identified in this AD, contact Aviat Aircraft Inc., Al Humbert, 672 South Washington Street, Afton, WY, 83110, United States; phone: (307) 885-3151; email: [dmir@aviataircraft.com](mailto:dmir@aviataircraft.com); internet: <https://aviataircraft.com>.

(4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 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, email: [fedreg.legal@nara.gov](mailto:fedreg.legal@nara.gov), or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on July 28, 2020.

Lance T. Gant, Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service

[FR Doc. 2020-17904 Filed: 8/14/2020 8:45 am; Publication Date: 8/17/2020]