

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2016-8992; Directorate Identifier 2016-CE-021-AD; Amendment 39-18621; AD 2016-17-08]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Textron Aviation, Inc. Airplanes**

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

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

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**SUMMARY:** We are superseding Airworthiness Directive (AD) 2016-07-24 for all Textron Aviation, Inc. Models 310 through 310R, E310H, E310J, T310P through T310R, 310J-1, 320 through 320F, 320-1, 335, 340, 340A, 401 through 401B, 402 through 402C, 411, 411A, 414, 414A, and 421 through 421C airplanes (type certificates 3A10, 3A25, and A7CE previously held by Cessna Aircraft Company). AD 2016-07-24 required replacement and repetitive inspections of the hardware securing the elevator trim tab push-pull rod. This AD retains the actions for AD 2016-07-24 but revises the repetitive inspection intervals and allows for a longer bolt for the attachment of the elevator trim tab actuator rod end to the push-pull tube connection and/or for the elevator trim tab horn end to the push-pull tube connection. This AD was prompted by comments indicating difficulties with bolt installation and requesting a revision to repetitive inspection intervals to coincide with established inspection intervals. We are issuing this AD to prevent jamming of the elevator trim tab in a position outside the normal limits of travel due to the loss of the attachment hardware connecting the elevator trim tab actuator to the elevator trim tab push-pull rod, which could result in loss of control.

**DATES:** This AD is effective September 12, 2016.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of September 12, 2016.

We must receive any comments on this AD by October 11, 2016.

**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: 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 Textron Aviation Customer Service, P.O. Box 7706, Wichita, Kansas 67277; telephone: (316) 517-5800; fax: (316) 517-7271; email: [customercare@txtav.com](mailto:customercare@txtav.com); Internet: <https://support.cessna.com/custsupt/csupport/newlogin.jsp>. You may review 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-2016-8992.

## **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-2016-8992; 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 street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Adam Hein, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, 1801 S. Airport Road, Room 100, Wichita, Kansas 67209; phone: (316) 946-4116; fax: (316) 946-4107; email: [adam.hein@faa.gov](mailto:adam.hein@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

On March 30, 2016, we issued AD 2016-07-24, Amendment 39-18469 (81 FR 21250, April 11, 2016), ("AD 2016-07-24"), for all Textron Aviation, Inc. Models 310 through 310R, E310H, E310J, T310P through T310R, 310J-1, 320 through 320F, 320-1, 335, 340, 340A, 401 through 401B, 402 through 402C, 411, 411A, 414, 414A, and 421 through 421C airplanes (type certificates 3A10, 3A25, and A7CE previously held by Cessna Aircraft Company). AD 2016-07-24 required replacing the hardware connecting the elevator trim tab push-pull rod to the elevator trim tab actuator and elevator trim tab. AD 2016-07-24 resulted from accident reports on Textron Aviation, Inc. Models T310Q, 310Q, and 402B airplanes; lessons learned in accident investigation support; and analysis of past accidents. The analysis of National Transportation Safety Board (NTSB) determination of probable cause indicated that following the loss of the attachment hardware connecting the elevator trim tab actuator to the elevator trim tab push-pull rod, the elevator trim tab may jam in a position outside the normal limits of travel. We issued AD 2016-07-24 to require replacement and repetitive inspections of the hardware securing the elevator trim tab push-pull rod.

### **Actions Since AD 2016-07-24 Was Issued**

Since we issued AD 2016-07-24, we have received reports of difficulties in installing the required bolt, part number (P/N) NAS464P3-8, because it was found in some cases to be too short to properly fasten with a cotter pin as required by the AD. It was also determined beneficial to revise the repetitive inspection intervals to better coincide with the standard established inspection intervals for these airplanes. We are issuing this AD to correct the unsafe condition on these products.

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

We reviewed Textron Aviation, Inc. (Cessna Aircraft Company) Multi-engine Service Bulletin No. MEB-27-02, Revision 1, dated June 15, 2016. The service information describes procedures for replacing the hardware connecting the elevator trim tab push-pull rod to the elevator trim tab actuator and elevator trim tab. 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**

We are issuing this AD because we 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 replacement and repetitive inspection of the elevator trim tab push-pull rod connecting hardware.

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

Due to the immediate safety of flight condition of this AD action, we are requiring replacement of the hardware within 90 days after the effective date of this AD rather than the potential of up to a year as allowed in the service information.

The kit referenced in the service bulletin contains only standard parts that may be procured from other sources.

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

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because the loss of the attachment hardware connecting the elevator trim tab actuator to the elevator trim tab push-pull rod may result in jamming of the elevator trim tab beyond normal limits, which could result in loss of ability to control the airplane. Therefore, we find that notice and opportunity for prior public comment are impracticable and 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 we did not provide you with notice and an opportunity to provide your comments before it becomes effective. However, we invite you to send any written data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include the docket number FAA-2016-8992 and directorate identifier 2016-CE-021-AD at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of 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 AD.

## Costs of Compliance

We estimate that this AD affects 5,066 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
Elevator trim tab push-pull rod hardware replacement	5 work-hour $\times$ \$85 per hour = \$425	\$42	\$467	\$2,365,822
Repetitive Inspection	1 work-hour $\times$ \$85 per hour = \$85	Not applicable	85	430,610

We estimate the following costs to do any necessary replacements that would be required based on the results of the inspection. This is the same replacement that is initially required by this AD. We have no way of determining the number of aircraft that might need this repetitive on-condition replacement:

### On-Condition Costs

Action	Labor cost	Parts cost	Cost per product
Elevator trim tab push-pull rod hardware replacement	5 work-hours $\times$ \$85 per hour = \$425	\$42	\$467

## 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 part 39 of the Federal Aviation Regulations (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) 2016-07-24, Amendment 39-18469 (81 FR 21250, April 11, 2016) and adding the following new AD:



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**2016-17-08 Textron Aviation, Inc.:** Amendment 39-18621; Docket No. FAA-2016-8992; Directorate Identifier 2016-CE-021-AD.

**(a) Effective Date**

This AD is effective September 12, 2016.

**(b) Affected ADs**

This AD replaces AD 2016-07-24, Amendment 39-18469 (81 FR 21250, April 11, 2016) ("AD 2016-07-24").

**(c) Applicability**

This AD applies to Textron Aviation, Inc. Models 310 through 310R, E310H, E310J, T310P through T310R, 310J-1, 320 through 320F, 320-1, 335, 340, 340A, 401 through 401B, 402 through 402C, 411, 411A, 414, 414A, and 421 through 421C airplanes (type certificates 3A10, 3A25, and A7CE previously held by Cessna Aircraft Company), all serial numbers, certificated in any category.

**(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 2731, Elevator Tab Control System.

**(e) Unsafe Condition**

This AD supersedes AD 2016-07-24, which required replacement and repetitive inspections of the hardware securing the elevator trim tab push-pull rod. This AD retains the actions for AD 2016-07-24 but revises the repetitive inspection intervals and allows for a longer bolt for the attachment of the elevator trim tab actuator rod end to the push-pull tube connection and/or for the elevator trim tab horn end to the push-pull tube connection. This AD was prompted by comments indicating difficulties with bolt installation and requesting a revision to repetitive inspection intervals to coincide with established inspection intervals. We are issuing this AD to prevent jamming of the elevator trim tab in a position outside the normal limits of travel due to the loss of the attachment hardware connecting the elevator trim tab actuator to the elevator trim tab push-pull rod, which could result in loss of control.

**(f) Actions and Compliance**

Do the actions in paragraphs (f)(1) through (3) of this AD. If paragraph (f)(1) of this AD has already been done before September 12, 2016 (the effective date of this AD) following either Textron Aviation, Inc. (Cessna) Multi-engine Service Bulletin (SB) No. MEB-27-02, dated February 29, 2016 (see paragraph (g) of this AD) or Textron Aviation, Inc. (Cessna) Multi-engine Service Bulletin (SB) No. MEB-27-02, Revision 1, dated June 15, 2016, then credit can be taken and the only required actions are the repetitive actions of paragraphs (f)(2) and (3) of this AD.

(1) Within the next 90 days after September 12, 2016 (the effective date of this AD), replace the elevator trim tab push-pull rod attachment hardware on the elevator trim tab actuator and the trim tab ends of the push-pull rod following steps 3 through 6 of the accomplishment instructions in Textron Aviation, Inc. (Cessna) Multi-engine Service Bulletin (SB) No. MEB-27-02, Revision 1, dated June 15, 2016.

(2) Following the replacement required in paragraph (f)(1) of this AD or the replacement or previous repetitive general visual inspection done per AD 2016-07-24, whichever occurs later, repetitively conduct general visual inspections of the elevator trim tab push-pull rod attachment hardware on the elevator trim tab actuator and the trim tab ends of the push-pull rod at intervals not to exceed 110 hours TIS or 12 months, whichever occurs first. Before further flight, replace the hardware if necessary following the Compliance NOTE on page 1 of Textron Aviation, Inc. (Cessna) Multi-engine Service Bulletin (SB) No. MEB-27-02, Revision 1, dated June 15, 2016.

Note 1 to paragraph (f)(2) of this AD: The intent is to require these repetitive inspections during your regular maintenance schedule.

(3) After September 12, 2016 (the effective date of this AD), any time the elevator trim tab push-pull rod attachment hardware on the elevator trim tab actuator and/or trim tab ends of the push-pull rod is removed for any reason, discard the old hardware (bolt, nut, washer and cotter pin) and replace with new hardware following steps 4 and/or step 6 of Textron Aviation, Inc. (Cessna) Multi-engine Service Bulletin (SB) No. MEB-27-02, Revision 1, dated June 15, 2016.

#### **(g) Credit for Actions Accomplished in Accordance With Previous Service Information**

This AD allows credit for the actions required in paragraphs (f)(1) of this AD if done before September 12, 2016 (the effective date of this AD) following the instructions of Textron Aviation, Inc. (Cessna) Multi-engine Service Bulletin (SB) No. MEB-27-02, dated February 29, 2016.

#### **(h) Special Flight Permit**

Special flight permits are allowed for this AD per 14 CFR 39.23 with the following limitation: Before flight a pre-flight visual inspection is required of the attachment hardware connecting the elevator trim tab actuator to the elevator trim tab push-pull rod. Confirmation of the presence of a castellated nut and cotter pin is required.

#### **(i) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Wichita 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 (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.

(3) AMOCs approved previously for AD 2016-07-24 are valid as AMOCs for this AD.

#### **(j) Related Information**

For more information about this AD, contact Adam Hein, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, 1801 S. Airport Road, Room 100, Wichita, Kansas 67209; phone: (316) 946-4116; fax: (316) 946-4107; email: adam.hein@faa.gov.

**(k) 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.

(3) The following service information was approved for IBR on September 12, 2016 (the effective date of this AD).

(i). Textron Aviation, Inc. (Cessna) Multi-engine Service Bulletin (SB) No. MEB-27-02, Revision 1, dated June 15, 2016.

(ii) Reserved.

(4) For Textron Aviation, Inc. (Cessna) service information identified in this AD, contact Textron Aviation Customer Service, P.O. Box 7706, Wichita, Kansas 67277; telephone: (316) 517-5800; fax: (316) 517-7271; email: [customercare@cessna.textron.com](mailto:customercare@cessna.textron.com); Internet: <https://support.cessna.com/custsupt/csupport/newlogin.jsp>.

(5) You may view this 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-2016-8992.

(6) 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 August 17, 2016.

Pat Mullen,  
Acting Manager, Small Airplane Directorate,  
Aircraft Certification Service.