



## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2020-0811; Product Identifier 2019-CE-055-AD; Amendment 39-21431; AD 2021-04-10]

RIN 2120-AA64

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

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

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for certain Textron Aviation Inc. (Textron) (type certificate previously held by Cessna Aircraft Company) Models 208 and 208B airplanes. This AD was prompted by reports of loose elevator torque tube attach fasteners. This AD requires repetitively inspecting the inboard and outboard elevator torque tube attachments for loose or incorrectly installed fasteners, replacing all fasteners if loose or incorrectly installed fasteners are found, and reporting the inspection results to the FAA. This AD also includes optional actions to terminate the repetitive inspections. The FAA is issuing this AD to address the unsafe condition on these products.

**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 final rule, contact Textron Aviation Inc., One Cessna Boulevard, Wichita, KS 67215; phone: 316-517-5800; email: [teamturbopropsupport@txtav.com](mailto:teamturbopropsupport@txtav.com); website: <https://support.cessna.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust St, Kansas City, MO 64106. For information on the availability of

this material at the FAA, call 816-329-4148. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0811.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0811; 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 address for Docket Operations is 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:** Bobbie Kroetch, Aviation Safety Engineer, Wichita ACO Branch, FAA, 1801 Airport Road, Wichita, KS 67209; phone: 316-946-4155; fax: 316-946-4107; email: [bobbie.kroetch@faa.gov](mailto:bobbie.kroetch@faa.gov) or [Wichita-COS@faa.gov](mailto:Wichita-COS@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Background**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Textron (type certificate previously held by Cessna Aircraft Company) Models 208 and 208B airplanes. The NPRM published in the *Federal Register* on September 22, 2020 (85 FR 59457). The NPRM was prompted by reports of loose elevator torque tube attach fasteners on low flight time Textron Model 208B airplanes. Textron identified a quality escape affecting certain serial-numbered Model 208 and 208B airplanes. Fastener holes in the inboard and outboard elevator torque tube connections may have been oversized and fasteners at the inboard and outboard torque tube connections may have been installed incorrectly.

In the NPRM, the FAA proposed to require repetitively inspecting the inboard and outboard elevator torque tube attachments for loose or incorrectly installed fasteners, replacing all fasteners if loose or incorrectly installed fasteners are found, and reporting the inspection results to the FAA. The NPRM also proposed optional actions to terminate the repetitive inspections. This condition, if not addressed, could result in failure of the

elevator torque tube fasteners, leading to loss of elevator control and loss of controlled flight. The FAA is issuing this AD to address the unsafe condition on these products.

### **Discussion of Final Airworthiness Directive**

#### **Comments**

The FAA received no comments on the NPRM or on the determination of the costs.

#### **Conclusion**

The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. This AD is adopted as proposed in the NPRM.

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

The FAA reviewed Task 27-30-00-290, Left and Right Elevator Torque Tube Attach Points (Borescope) Special Detailed Inspection, dated October 1, 2018, of the Cessna Model 208 Maintenance Manual (Task 27-30-00-290). This service information contains procedures for performing a detailed borescope inspection of the left and right elevator torque tube attach points. 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 ADDRESSES.

#### **Other Related Service Information**

The FAA also reviewed Textron Aviation Mandatory Caravan Service Bulletin CAB-27-06, dated October 14, 2019 (CAB-27-06). This service information contains instructions for visually inspecting the left and right elevator torque tube attach points for the presence of loose rivets and replacing loose or incorrectly installed rivets.

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

Task 27-30-00-290 only specifies replacing loose fasteners. This AD requires replacement of all 48 fasteners if any single inboard or outboard elevator torque tube attach fastener is found loose or incorrectly installed. The FAA determined based on field evidence that identification of one loose fastener often indicates other fasteners may be affected.

CAB-27-06, which is not incorporated by reference in this AD, specifies performing an initial inspection within 800 flight hours or 12 months from date of receipt, whichever occurs first. This AD requires an initial inspection before the airplane accumulates 800 hours time-in-service (TIS) or within 200 hours TIS after the AD effectivity date, whichever occurs later.

CAB-27-06 also specifies, without sufficient data, that an inspection is not required for airplanes that have reached 4,000 hours. The FAA determined an inspection of high-time airplanes is necessary to verify whether these airplanes are affected. This AD requires a one-time visual inspection for airplanes that have already accumulated 4,000 hours TIS.

## Costs of Compliance

The FAA estimates that this AD affects 232 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

<b>Estimated Costs</b>				
<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Inspection	1 work-hour X \$85 per hour = \$85	Not applicable	\$85 per inspection cycle	\$19,720 per inspection cycle
Reporting Requirement	1 work-hour X \$85 per hour = \$85	Not applicable	\$85 per report	\$19,720 per report

The FAA estimates the following costs to do any necessary 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:

<b>On-condition Costs</b>				
<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	
Fastener Replacement: All 48 Fasteners	16 work-hours X \$85 per hour = \$1,360	\$10	\$1,370	

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

## 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 take approximately 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and 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 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) Will not affect intrastate aviation in Alaska, and
- (3) 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 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:

**2021-04-10 Textron Aviation, Inc. (Type Certificate Previously Held by Cessna Aircraft Company):** Amendment 39-21431; Docket No. FAA-2020-0811; Product Identifier 2019-CE-055-AD.

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

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

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

None.

#### **(c) Applicability**

This AD applies to Textron Aviation Inc. (Textron) (type certificate previously held by Cessna Aircraft Company) Model 208 airplanes, serial numbers 20800564 through 20800594 and 20800603 through 20800605; and Model 208B airplanes, serial numbers 208B5141 through 208B5285, 208B5287 through 208B5305, 208B5307 through 208B5312, 208B5314, 208B5316 through 208B5344, 208B5346 through 208B5350, 208B5353, 208B5354, 208B5356 through 208B5359, 208B5362 through 208B5366, 208B5401, 208B5403, 208B5404, and 208B5408; certificated in any category.

#### **(d) Subject**

Joint Aircraft System Component (JASC) Code: 5520, Elevator Structure.

#### **(e) Unsafe Condition**

This AD was prompted by reports of loose elevator torque tube attach fasteners. The FAA is issuing this AD to detect and correct loosening and eventual failure of the elevator torque tube attach fasteners. The unsafe condition, if not addressed, could result in loss of elevator control, resulting in loss of control of the airplane.

#### **(f) Compliance**

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

**(g) Inspection and Fastener Replacement**

(1) At the following compliance times, inspect each inboard and outboard elevator torque tube attach fastener for looseness and fretting by following sections 2.C. and 2.D. of Task 27-30-00-290, Left and Right Elevator Torque Tube Attach Points (Borescope) Special Detailed Inspection, dated October 1, 2018, of the Cessna Model 208 Maintenance Manual. You must also inspect for incorrectly installed fasteners.

(i) For airplanes that have accumulated less than 800 hours time-in-service (TIS) as of the effective date of this AD, complete the initial inspection before the airplane accumulates 800 hours TIS or within 200 hours TIS after the effective date of the AD, whichever occurs later. Thereafter, repeat the visual inspection at intervals not to exceed 200 hours TIS until the airplane has accumulated 4,000 hours TIS or until all 48 elevator torque tube attach fasteners are replaced, whichever occurs first.

(ii) For airplanes that have accumulated 800 or more hours TIS but less than 4,000 hours TIS as of the effective date of this AD, complete the initial inspection within 200 hours TIS after the effective date of the AD. Thereafter, repeat the visual inspection at intervals not to exceed 200 hours TIS until the airplane has accumulated 4,000 hours TIS or until all 48 elevator torque tube attach fasteners are replaced, whichever occurs first.

(iii) For airplanes that have accumulated 4,000 or more hours TIS as of the effective date of this AD, complete a one-time visual inspection within 200 hours TIS after the effective date of the AD. No repetitive inspections are required after completion of the one-time visual inspection.

(2) If there are any loose, fretting, or incorrectly installed fasteners, remove the elevator and replace all 48 elevator torque tube attach fasteners (24 per side, with 12 each on the inboard and outboard elevator torque tube attach point) before further flight. Maintain proper alignment by marking each part prior to removal and by replacing one fastener at a time. Replacing all 48 fasteners is terminating action for the repetitive inspections required by paragraphs (g)(1)(i) and (ii) of this AD.

(3) If all 48 fasteners were replaced before the effective date of this AD by following the instructions in paragraph (g)(2) of this AD, then the initial and recurring inspections detailed in paragraph (g)(1) of this AD are not required provided you report the information required by paragraph (h) of this AD.

**(h) Reporting Requirement**

Within 30 days after doing the initial inspection (regardless if loose, fretting, or incorrectly installed fasteners were found) or within 30 days after the effective date of this AD, whichever occurs later, and then within 30 days after each inspection where loose, fretting, or incorrectly installed fasteners were found, report the following information to the FAA at [Wichita-COS@faa.gov](mailto:Wichita-COS@faa.gov):

(1) Name and address of owner.

(2) Date of the inspection.

(3) Name, address, phone number, and email address of person submitting the report.

(4) Airplane serial number, registration number, and total hours TIS on the airplane at the time of the inspection.

(5) If an earlier inspection identified loose, fretting, or incorrectly installed fasteners, identify the hours TIS on the airplane and which fasteners were replaced, if known, or if all fasteners were replaced.

(6) If loose, fretting, or incorrectly installed fasteners were found, detailed information including a sketch or picture showing the location of the loose, fretting, or incorrectly installed fasteners and identification of any installed supplemental type certificates (STCs), alterations, repairs, or field approvals affecting the area of concern.

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

(1) The Manager, Wichita 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 the Related Information section 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.

**(j) Related Information**

For more information about this AD, contact Bobbie Kroetch, Aviation Safety Engineer, Wichita ACO Branch, FAA, 1801 Airport Road, Wichita, KS 67209; phone: 316-946-4155; fax: 316-946-4107; email: [bobbie.kroetch@faa.gov](mailto:bobbie.kroetch@faa.gov) or [Wichita-COS@faa.gov](mailto:Wichita-COS@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.

(i) Task 27-30-00-290, Left and Right Elevator Torque Tube Attach Points (Borescope) Special Detailed Inspection, dated October 1, 2018, of the Cessna Model 208 Maintenance Manual.

(ii) [Reserved]

(3) For Textron Aviation, Inc. service information identified in this AD, contact Textron Aviation Inc., One Cessna Boulevard, Wichita, KS 67215; phone: 316-517-5800; email: [teamturbopropsupport@txtav.com](mailto:teamturbopropsupport@txtav.com); website: <https://support.cessna.com>.

(4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust St, Kansas City, MO 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 February 8, 2021.

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

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