



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0472; Product Identifier 2018-CE-060-AD]

RIN 2120-AA64

Airworthiness Directives; Textron Aviation Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for all Textron Aviation Inc. (Textron) Models 180, 180A, 180B, 180C, 180D, 180E, 180F, 180G, 180H, 180J, 180K, 182, 182A, 182B, 182C, 182D, 185, 185A, 185B, 185C, 185D, 185E, A185E, and A185F airplanes. This proposed AD was prompted by a report of cracks found in the tailcone and horizontal stabilizer attachment structure. This proposed AD would require inspecting the tailcone and horizontal stabilizer for corrosion and cracks and repairing or replacing damaged parts as necessary. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA 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 <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: 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 Textron Aviation Customer Service, P.O. Box 7706, Wichita, Kansas 67277, (316) 517-5800; customercare@txtav.com; <https://txtav.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.

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-2020-0472; 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 NPRM, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Tara Shawn, Aerospace Engineer, Wichita ACO Branch, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4141; fax: (316) 946-4107; email: tara.shawn@faa.gov or Wichita-COS@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2020-0472; Product Identifier 2018-CE-060-AD” at the beginning of your comments. The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. The FAA will

consider all comments received by the closing date and may amend this NPRM because of those comments.

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 received about this NPRM.

Discussion

The FAA received a report of cracks in the tailcone and horizontal stabilizer attachment structure on a Textron (type certificate previously held by Cessna Aircraft Company) Model 185 airplane. It was observed during maintenance that the horizontal stabilizer tail section moved up and down and had excessive play. After a detailed inspection, the tailcone reinforcement braces were found cracked on both sides of the airplane. Upon further investigation, the FAA discovered similar conditions on 29 additional Textron 180 and 185 series airplanes. The FAA determined that the combination of the attachment structure design and high loads during landing contribute to the development of cracks in the tailcone and horizontal stabilizer attachment structure. This condition, if unaddressed, could result in failure of the horizontal stabilizer to tailcone attachment and lead to tail separation with consequent loss of control of the airplane.

Related Service Information under 1 CFR part 51

The FAA reviewed Textron Aviation Single Engine Mandatory Service Letter SEL-55-01, dated December 7, 2017. The service information contains procedures for inspecting the stabilizer hinge brackets, tailcone reinforcement angles, corner reinforcements, stabilizer hinge reinforcement channel, stabilizer hinge assemblies, stabilizer aft spar reinforcement, and the lower half of the stabilizer aft spar from station (STA) 16 on the left side of the stabilizer aft spar to STA 16 on the right side for cracks

and corrosion. 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 proposing 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.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously.

Differences Between this Proposed AD and the Service Information

The service information applies to airplanes with more than 3,000 total hours time-in-service or 10 years in service, while this proposed AD would apply regardless of the airplane’s time-in-service. This proposed AD would require inspecting for and replacing loose or sheared rivets, which is not specified in the service information.

Costs of Compliance

The FAA estimates that this proposed AD would affect 6,586 airplanes of U.S. registry.

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

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	2 work-hours X \$85 per hour = \$170	Not applicable	\$170	\$1,119,620

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

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replace left-hand (LH) stabilizer hinge bracket	4 work-hours X \$85 per workhour = \$340	\$551	\$891
Replace right-hand (RH) stabilizer hinge bracket	4 work-hours X \$85 per workhour = \$340	\$530	\$870
Replace LH tailcone reinforcement angle	12 work-hours X \$85 per workhour = \$1,020	\$2,291	\$3,311
Replace RH tailcone reinforcement angle	12 work-hours X \$85 per workhour = \$1,020	\$3,006	\$4,026
Replace LH corner reinforcement	6 work-hours X \$85 per workhour = \$510	\$169	\$679
Replace RH corner reinforcement	6 work-hours X \$85 per workhour = \$510	\$390	\$900
Replace LH stabilizer hinge reinforcement channel	6 work-hours X \$85 per workhour = \$510	\$99	\$609
Replace RH stabilizer hinge reinforcement channel	6 work-hours X \$85 per workhour = \$510	\$99	\$609
Replace LH stabilizer hinge assembly	1 work-hours X \$85 per workhour = \$85	\$570	\$655
Replace RH stabilizer hinge assembly	1 work-hours X \$85 per workhour = \$85	\$694	\$779
Replace LH stabilizer aft spar reinforcement	*	\$825	\$825
Replace RH stabilizer aft spar reinforcement	*	\$466	\$466
Replace stabilizer aft spar (* includes work-hour cost for replacing stabilizer aft spar reinforcement parts)	28* work-hours X \$85 per workhour = \$2,380	\$563	\$2,943
Remove and replace horizontal and vertical stabilizers and rig flight controls	8 work-hours X \$85 per workhour = \$680	Not applicable	\$680

Since corrosion may affect any or all of the parts subject to the inspection in this proposed AD differently and the severity of the corrosion on each part would affect the time necessary to correct the condition, the FAA has no way to determine an overall cost per product for removing the corrosion. Similarly, loose or sheared rivets may also affect any or all of the parts subject to the inspection in this proposed AD differently, and the time necessary to correct the condition on each product would be different. Therefore, the FAA has no way to determine an overall cost per product for replacing loose or sheared rivets.

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

The FAA 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) 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 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 adding the following new airworthiness directive

(AD):

Textron Aviation Inc.: Docket No. FAA-2020-0472; Product Identifier
2018-CE-060-AD.

(a) Comments Due Date

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

(b) Affected ADs

None.

(c) Applicability

This AD applies to Textron Aviation Inc. (type certificate previously held by Cessna Aircraft Company) Models 180, 180A, 180B, 180C, 180D, 180E, 180F, 180G, 180H, 180J, 180K, 182, 182A, 182B, 182C, 182D, 185, 185A, 185B, 185C, 185D, 185E, A185E, and A185F airplanes, all serial numbers, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 53, Fuselage; 55, Stabilizers.

(e) Unsafe Condition

This AD was prompted by a report of cracks found in the tailcone and horizontal stabilizer attachment structure. The FAA is issuing this AD to detect and correct corrosion and cracks in the tailcone and horizontal stabilizer attachment structure. The unsafe condition, if not addressed, could result in failure of the horizontal stabilizer to tailcone attachment, which could lead to tail separation with consequent loss of control of the airplane.

(f) Compliance

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

(g) Inspect, Repair, and Replace

Within the next 100 hours time-in-service (TIS) after the effective date of this AD or within the next 12 months after the effective date of this AD, whichever occurs later, and thereafter every 500 hours TIS or 5 years, whichever occurs first, visually inspect each stabilizer hinge bracket, tailcone reinforcement angle, corner reinforcement, stabilizer hinge reinforcement channel, stabilizer hinge assembly, stabilizer aft spar reinforcement, and the lower half of the stabilizer aft spar from station (STA) 16 on the left side to STA 16 on the right side for corrosion and cracks; remove any corrosion; and replace any part with a crack by following the Accomplishment Instructions, paragraphs

9 through 11 and 13, of Textron Aviation Single Engine Mandatory Service Letter SEL-55-01, dated December 7, 2017. Also inspect for loose rivets and sheared rivets. If there is a loose or sheared rivet, before further flight, replace the rivet.

(h) Credit for Previous Actions

Actions accomplished before the effective date of this AD within the previous 5 years or 500 hours TIS, whichever was the most recent, in accordance with the procedures specified in the documents listed in paragraphs (h)(i) through (viii) of this AD as applicable to your airplane are considered acceptable for compliance with the corresponding actions in paragraph (g) of this AD. The time between any inspection for which credit is allowed by this paragraph and the next inspection accomplished in accordance with paragraph (g) of this AD must not exceed 500 hours TIS or 5 years, whichever occurs first.

(i) Cessna Aircraft Company Model 100 Series (1953 – 1962) Service Manual, Supplemental Inspection Number: 53-10-01, D138-1-13 Temporary Revision Number 8, dated May 18, 2015.

(ii) Cessna Aircraft Company Model 100 Series (1963 – 1968) Service Manual, Supplemental Inspection Number: 53-10-01, D637-1-13 Temporary Revision Number 10, dated May 18, 2015;

(iii) Cessna Aircraft Company Model 180/185 Series (1969 – 1980) Service Manual, Supplemental Inspection Number: 53-10-01, D2000-9-13 Temporary Revision Number 9, dated May 18, 2015.

(iv) Cessna Aircraft Company Model 180/185 Series (1981 - 1985) Service Manual, Supplemental Inspection Number: 53-10-01, D2067-1TR9 Temporary Revision Number 9, dated May 1, 2016.

(v) Cessna Aircraft Company Model 100 Series (1953 - 1962) Service Manual, Supplemental Inspection Number: 55-10-01, D138-1-13 Temporary Revision Number 7, dated December 1, 2011.

(vi) Cessna Aircraft Company Model 100 Series (1963 - 1968) Service Manual, Supplemental Inspection Number: 55-10-01, D637-1-13 Temporary Revision Number 9, dated December 1, 2011.

(vii) Cessna Aircraft Company Model 180/185 Series (1969 - 1980) Service Manual, Supplemental Inspection Number: 55-10-01, D2000-9-13 Temporary Revision Number 7, dated December 1, 2011.

(viii) Cessna Aircraft Company Model 180/185 Series (1981 - 1985) Service Manual, Supplemental Inspection Number: 55-10-01, D2067-1-13 Temporary Revision Number 7, dated December 1, 2011.

(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 paragraph (j) 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

(1) For more information about this AD, contact Tara Shawn, Aerospace Engineer, Wichita ACO Branch, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4141; fax: (316) 946-4107; email: tara.shawn@faa.gov or Wichita-COS@faa.gov.

(2) For service information identified in this AD, contact Textron Aviation Customer Service, P.O. Box 7706, Wichita, Kansas 67277, (316) 517-5800; customercare@txtav.com; <https://txtav.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.

Issued on May 8, 2020.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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