



**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2020-0493; Project Identifier 2019-CE-046-AD; Amendment 39-21336; AD 2020-24-06]**

**RIN 2120-AA64**

**Airworthiness Directives; Textron Aviation, Inc., (Type Certificate Previously Held by Cessna Aircraft Company) Airplanes**

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

**ACTION:** Final rule.

**SUMMARY:** The FAA is superseding Airworthiness Directive (AD) AD 2019-08-13 for Textron Aviation, Inc., (type certificate previously held by Cessna Aircraft Company) Models 525, 525A, and 525B airplanes with Tamarack Aerospace Group (Tamarack) active load alleviation system (ATLAS) winglets installed in accordance with Supplemental Type Certificate (STC) SA03842NY. AD 2019-08-13 was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as malfunction of the ATLAS. This AD results from the identification of corrective actions that, if implemented, allow operators to reactivate the ATLAS and restore operations to normal procedures. 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 certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For Cranfield Aerospace Solutions Limited and Tamarack Aerospace Group service information identified in this AD, contact Tamarack Aerospace Group, Inc. 2021 Industrial Drive, Sandpoint, Idaho 83864; telephone: (208) 255-4400; email:

support@tamarackaero.com; internet: <https://tamarackaero.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 at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0493.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0493; 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, the MCAI, 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:** Steven Dzierzynski, Aerospace Engineer, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone: (516) 287-7367; fax: (516) 794-5531; email: [steven.dzierzynski@faa.gov](mailto:steven.dzierzynski@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Background**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2019-08-13, Amendment 39-19634 (84 FR 24007, May 24, 2019) (AD 2019-08-13). AD 2019-08-13 applied to Textron Aviation, Inc., Models 525, 525A, and 525B airplanes with Tamarack ATLAS winglets installed in accordance with STC SA03842NY. The NPRM published in the *Federal Register* on June 2, 2020 (85 FR 33583).

AD 2019-08-13 prohibited all flight by revising the operating limitations in the airplane flight manual and fabricating and installing a placard, until a modification has been incorporated in accordance with an FAA-approved method. AD 2019-08-13 was based on MCAI originated by the European Union Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union. EASA

issued AD No. 2019-0086-E, dated April 19, 2019, to address an unsafe condition related to reports of the ATLAS malfunctioning, which could lead to loss of control of the airplane.

The NPRM was prompted by EASA's revision to the MCAI. EASA issued AD No. 2019-0086R1, dated August 9, 2019, to require modifications previously developed by Cranfield Aerospace Solutions Limited (Cranfield), the holder of STC SA03842NY, to restore the safety of the ATLAS design and allow operators to reactivate the ATLAS. In the NPRM, the FAA proposed to require installing the modified Tamarack Active Camber Surface (TACS) control unit (TCU) and centering strips and revising the Tamarack maintenance manual supplement to include instructions for continued airworthiness relating to the centering strips. The FAA is issuing this AD to address the unsafe condition on these products.

You may obtain further information by examining the MCAI in the AD docket on the internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0493.

### **Comments**

The FAA received comments from two commenters. The commenters were Tamarack and the General Aviation Manufacturers Association (GAMA). The following presents the comments received on the NPRM and the FAA's response to each comment.

### **Supportive Comments**

Tamarack and GAMA supported the NPRM.

### **Request to Revise the Preamble**

Tamarack requested the FAA correct a statement in the preamble of the NPRM that the April 13, 2019 incident exposed a failure mode of the ATLAS that was not anticipated during certification. Tamarack commented this statement in the NPRM implies that only the worst case condition was tested while other less critical conditions were not. The commenter further stated that the failure mode that occurred on April 13, 2019 was tested during certification and shown to be recoverable. The commenter discussed the investigations and flights tests conducted by EASA and stated this data was reviewed and validated by the FAA before the FAA issued AD 2019-08-13.

The FAA partially agrees. The FAA issued AD 2019-08-13 on May 20, 2019. The FAA had received flight path data for the UK incident aircraft; however, this data did not provide any information about the operation of the ATLAS system during the incident. Therefore, it was not considered in the development of the FAA AD. No other information about the operation of the ATLAS system during this incident has been provided to the FAA.

The FAA received the root cause report mentioned by the commenter on April 22, 2019, which deemed further investigation was warranted to determine if the actions specified in Cranfield's service bulletin mitigated the unsafe condition. Many discussions between the FAA and EASA occurred before and after the issuance of AD 2019-08-13. Given that the Cranfield service bulletin did not contain adequate instructions for the use of "speed tape" to prevent the TACS from floating, the FAA found it unacceptable for correcting the unsafe condition. Instead of delaying action to address the unsafe condition to wait for testing of the "speed tape," the FAA issued AD 2019-08-13 to ground the affected airplanes, knowing that operators could request an alternative method of compliance when substantiating data became available or when the investigation was complete.

The FAA did not make changes to this AD based on this comment.

#### **Request to Update the STC Holder**

Tamarack requested the FAA update the STC holder and contact information from Cranfield to Tamarack. The commenter noted that Cranfield finalized the transfer of STC SA03842NY to Tamarack after the issuance of AD 2019-08-13.

The FAA agrees and has updated the references as requested.

#### **Conclusion**

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

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

The FAA reviewed the following service documents required for compliance with this AD:

- Cranfield Aerospace Solutions Limited Service Bulletin CAS/SB1480, Issue A, dated July 2019, which contains instructions to ensure installation of a modified TCU and the TACS centering strips; and

- Tamarack Aerospace Group Cessna 525, 525A, & 525B ATLAS Winglet Maintenance Manual Supplement, Report Number: TAG-1100-0101, Issue G, dated September 3, 2019, which adds instructions to inspect the centering strips and adds repetitive inspection intervals to the Airworthiness Limitations section of the supplement for the centering strips.

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.

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

The FAA also reviewed the following documents related to this AD:

- Cranfield Aerospace Solutions Limited Service Bulletin CAS/SB1475, Issue A, dated February 2019, which contains the instructions for installing the centering strips to the TACS, identified as modification CAeM/Cessna/1475;

- Tamarack Aerospace Group ATLAS Service Bulletin SBATLAS-57-03, dated July 27, 2018, which contains instructions to remove the ATLAS TCU and return it to the ATLAS repair facility for modification;

- Tamarack Aerospace Group ATLAS Service Bulletin SBATLAS-57-05, dated February 20, 2019, which contains instructions to install centering strips on the TACS;

and

- Cranfield Aerospace Solutions Limited Service Bulletin CAS/SB1467, Issue B, dated July 2018, which contains instructions to remove the ATLAS TCU assembly and modify it as specified in CAS/SB1480, Issue A.

#### **Costs of Compliance**

The FAA estimates that this AD will affect 76 products of U.S. registry. The FAA also estimates that it will take 16 work-hours with a parts cost of \$4,314 per product to modify the TCU, 24 work-hours with a parts cost of \$199 per product to install the

centering strips, and 1 work-hour per product to revise the limitations section as required by this AD. The average labor rate is \$85 per work-hour.

Based on these figures, the FAA estimates the cost of this AD on U.S. operators to be \$607,848, or \$7,998 per product.

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.

### **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 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:

a. Removing Airworthiness Directive 2019-08-13, Amendment 39-19634 (84 FR 24007, May 24, 2019); and

b. Adding the following new airworthiness directive:

**2020-24-06 Textron Aviation, Inc., (Type Certificate Previously Held by Cessna Aircraft Company):** Amendment 39-21336; Docket No. FAA-2020-0493; Project Identifier 2019-CE-046-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**

This AD replaces AD 2019-08-13, Amendment 39-19634 (84 FR 24007, May 24, 2019) (AD 2019-08-13).

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

This AD applies to Textron Aviation, Inc. (type certificate previously held by Cessna Aircraft Company) Models 525, 525A, and 525B airplanes, certificated in any category, with Tamarack active load alleviation system (ATLAS) winglets installed in accordance with Supplemental Type Certificate SA03842NY.

**(d) Subject**

Air Transport Association of America (ATA) Code 27: Flight Controls.

**(e) Reason**

This AD was prompted by mandatory continuing airworthiness information (MCAI) issued by the aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as malfunction of the ATLAS, which could cause difficulty for the pilot to recover the airplane to safe flight. The FAA is issuing this AD to prevent malfunction of the ATLAS and to ensure the Tamarack Active Camber Surface (TACS) remains in a faired position in the case of inadvertent power loss to the ATLAS, which could lead to loss of control of the airplane.

**(f) Compliance**

Unless already done, do the following actions in paragraphs (g) and (h) of this AD.

**(g) Modifications**

Before further flight after the effective date of this AD, do the following corrective actions:

(1) Determine whether the serial number of the TACS control unit (TCU) assembly is listed in table 7.8. of Cranfield Aerospace Solutions Limited (Cranfield) Service Bulletin CAS/SB1480, Issue A, dated July 2019 (Cranfield CAS/SB1480, Issue A). If the serial number of the TCU assembly is not listed in table 7.8., replace the TCU assembly with a TCU assembly that has a part number listed in section 5 and a serial number listed in table 7.8 of Cranfield CAS/SB1480, Issue A.

(2) Determine whether centering strips have been installed on the trailing edge of the TACS by following step 7.4. of Cranfield CAS/SB1480, Issue A. If the trailing edge of the TCAS does not have centering strips, install Cranfield modification CAeM/Cessna/1475.

**(h) Revision to the Maintenance Manual Supplement**

(1) Before further flight after the effective date of this AD, revise the Airworthiness Limitations section (ALS) and Instructions for Continued Airworthiness

for your airplane by adding the updates in Tamarack Aerospace Group Cessna 525, 525A & 525B ATLAS Winglet Maintenance Manual Supplement, Report Number: TAG-1100-0101, Issue G, dated September 3, 2019.

(2) Thereafter, except as provided in paragraph (i) of this AD, no alternative inspection intervals may be approved for the centering strips. Inserting a later issue of the ALS with language identical to that contained in Issue G for the centering strips is acceptable for compliance with the requirements of this paragraph.

(3) The airplane flight manual revision and placard required by AD 2019-08-13, if installed, may be removed after completing the modifications required by paragraph (g) of this AD.

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

The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Program Manager, Continued Operational Safety FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone: (516) 287-7321; fax: (516) 794-5531; email: 9-avs-nyaco-cos@faa.gov. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

**(j) Related Information**

Refer to European Union Aviation Safety Agency (EASA) AD No. 2019-0086R1, dated August 9, 2019, for related information. You may examine the MCAI on the internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0493.

**(k) 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) Cranfield Aerospace Solutions Limited Service Bulletin CAS/SB1480, Issue A, dated July 2019.

(ii) Tamarack Aerospace Group Cessna 525, 525A, & 525B ATLAS Winglet Maintenance Manual Supplement, Report Number: TAG-1100-0101, Issue G, dated September 3, 2019.

(3) For Cranfield Aerospace Solutions Limited and Tamarack Aerospace Group service information identified in this AD, contact Tamarack Aerospace Group, Inc. 2021 Industrial Drive, Sandpoint, Idaho 83864; telephone: (208) 255-4400; email: [support@tamarackaero.com](mailto:support@tamarackaero.com); internet: <https://tamarackaero.com>.

(4) 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.

(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 November 13, 2020.

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

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