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[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0288; Product Identifier 2017-CE-007-AD]

RIN 2120-AA64

Airworthiness Directives; Textron Aviation Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Supplemental notice of proposed rulemaking (SNPRM); reopening of comment period.

SUMMARY: We are revising an earlier proposal for all Textron Aviation Inc. Models A36TC and B36TC airplanes. This action revises the notice of proposed rulemaking (NPRM) by adding all Textron Aviation Inc. Models S35, V35, V35A, and V35B airplanes that have the optional turbocharger engine installed to the applicability and adding an annual visual inspection of the exhaust tailpipe v-band coupling (clamp). We are proposing this airworthiness directive (AD) to address the unsafe condition on these products. Since these actions would impose an additional burden over those in the NPRM, we are reopening the comment period to allow the public the chance to comment on these changes.

DATES: The comment period for the NPRM published in the Federal Register on April 12, 2017 (82 FR 17594), is reopened.

We must receive comments on this SNPRM 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 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.

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-2017-0288; 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 SNPRM, 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: Thomas Teplik, Aerospace Engineer, Wichita ACO Branch, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; phone: (316) 946-4196; fax: (316) 946-4107; email: thomas.teplik@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite 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-2017-0288; Product Identifier 2017-CE-007-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this SNPRM. We will consider all comments received by the closing date and may amend this SNPRM 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 SNPRM.

Discussion

We issued an NPRM to amend 14 CFR part 39 by adding an AD that would apply to Textron Aviation Inc.(Textron) Models A36TC and B36TC airplanes. The NPRM published in the *Federal Register* on April 12, 2017 (82 FR 17594). The NPRM was prompted by a fatal accident where the exhaust tailpipe fell off during takeoff. The NPRM proposed to add a life limit to the exhaust tailpipe v-band coupling (clamp) and, if the coupling is removed for any reason before the life limit is reached, require an inspection of the v-band coupling before reinstalling.

Actions Since the NPRM was Issued

Since we issued the NPRM, we received information that Textron Models S35, V35, V35A, and V35B airplanes could have a turbocharged reciprocating engine installed, either at manufacture as an optional installation or post-manufacture as a supplemental type certificate (STC) installation. Either engine installation would include

installation of an affected v-band coupling. We also received comments to the NPRM requesting an annual visual inspection of the v-band couplings and requesting language changes to address the replacement of the engine with a non-turbocharged engine.

Comments

We gave the public the opportunity to comment on the NPRM. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request Repetitive Visual Inspections of the V-Band Coupling

The National Transportation Safety Board (NTSB) requested we add repetitive visual inspections of the v-band coupling. The NTSB noted that the FAA included repetitive visual inspections of the v-band coupling in a previous AD affecting Piper Aircraft Inc. airplanes. They believe a similar repetitive visual inspection of the v-band coupling for the airplanes affected by this proposed AD, in addition to the proposed life limit, would help identify the cracks before failure.

We agree with the comment, and we have added a repetitive visual inspection of the v-band coupling to this SNPRM.

Request to Remove Airplanes Without a Turbocharged Engine from the Applicability

Gerard Terpstra requested we exclude Model A36TC airplanes that have STC SA3523NM installed from the applicability of the AD. This STC removes the turbocharged engine and replaces it with a turbine engine, which does not include a v-band coupling affected by the proposed AD. Therefore, it would be impossible to comply with the AD.

We agree with this comment, and we have modified the Applicability, paragraph (c), to only apply to airplanes with engine installations with a turbocharger that include exhaust tailpipe v-band couplings affected by this SNPRM.

In Favor of the AD

Thomas P. Turner of the American Bonanza Society Air Safety Foundation responded in favor of the proposed AD action.

FAA's Determination

We are proposing 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. Certain changes described above expand the scope of the NPRM. As a result, we have determined that it is necessary to reopen the comment period to provide additional opportunity for the public to comment on this SNPRM.

Proposed Requirements of this SNPRM

This SNPRM would require repetitive visual inspections of the exhaust tailpipe v-band coupling and add a life limit to the exhaust tailpipe v-band coupling (clamp).

Costs of Compliance

We estimate that this proposed AD affects 731 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Visual inspection of the exhaust tailpipe v-band coupling (Installed)	.5 work-hour X $85 per hour = $42.50	Not applicable	$42.50	$31,067.50
Replacement of the exhaust tailpipe v-band coupling	2 work-hours X $85 per hour = $170	$300	$470	$343,570

We estimate the following costs to do any necessary inspection that would require removal and reinstallation of the exhaust tailpipe v-band coupling. We have no way of determining the number of airplanes that might need this inspection:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Inspection of the exhaust tailpipe v-band coupling (Not installed, includes removal and reinstallation)	1.5 work-hours X $127.50 per hour = $127.50	Not applicable	$127.50

We estimate the following costs for the installation of part number N1000897-40 exhaust tailpipe v-band coupling on Models S35, V35, V35A, and V35B airplanes equipped with the Continental TSIO-520-D engine with AiResearch turbocharger during manufacture. We have no way of determining the number of airplanes that may do this installation:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Installation of part number N1000897-40 exhaust tailpipe v-band coupling	2 work-hours X $85 per hour = $170	$632	$802

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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to small airplanes and domestic business jet transport airplanes to the Director of the Policy and Innovation Division.

Regulatory Findings

We 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) Is not a "significant rule" under the 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.

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-2017-0288; Product Identifier 2017-CE-007-AD

(a) Comments Due Date

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

(b) Affected ADs

None.

(c) Applicability

(1) This AD applies to the following Textron Aviation Inc. airplanes; all serial numbers, that are certificated in any category:

(i) Models A36TC and B36TC airplanes equipped with a turbocharged engine.

(ii) Models S35, V35, V35A, and V35B airplanes equipped with the Continental TSIO-520-D engine with AiResearch turbocharger during manufacture; and

(iii) Models S35, V35, V35A, and V35B airplanes equipped with StandardAero Supplemental Type Certificate (STC) SA1035WE.

(2) If the one-piece v-band coupling (clamp), part number (P/N) NH1000897-40, is installed on Textron Aviation Inc. Models S35, V35, V35A, and V35B airplanes equipped with the Continental TSIO-520-D engine with AiResearch turbocharger during manufacture, this AD does not apply to those airplanes.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 81, Turbocharging.

(e) Unsafe Condition

This AD was prompted by a fatal accident where the exhaust tailpipe fell off during takeoff. We are issuing this AD to prevent failure of the exhaust tailpipe v-band coupling (clamp) that may lead to detachment of the exhaust tailpipe from the turbocharger and allow high-temperature exhaust gases to enter the engine compartment, which could result in an inflight fire.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done. For the purposes of this AD, the exhaust tailpipe v-band coupling may also be referred to as the exhaust tailpipe v-band clamp.

(g) Review of the Maintenance Records

Within 50 hours time-in-service (TIS) after the effective date of this AD, do a maintenance records review to determine the hours TIS of the exhaust tailpipe v-band coupling. If unable to determine the hours TIS of the exhaust tailpipe v-band coupling, use the compliance time specified in paragraph (h)(2) of this AD.

(h) Compliance Times for Repetitive Replacement of the V-Band Coupling

Use the following compliance times in paragraph (h)(1) or (2) for the repetitive replacement of the exhaust tailpipe v-band coupling as specified in paragraph (i) of this AD.

(1) If from a review of the maintenance records you can positively identify that the hours TIS for the exhaust tailpipe v-band coupling is less than 500 hours TIS: Do the initial replacement within 500 hours TIS on the exhaust tailpipe v-band coupling or within the next 50 hours TIS after the effective date of this AD, whichever occurs later, and replace repetitively thereafter at intervals not to exceed 500 hours TIS on the exhaust tailpipe v-band coupling.

(2) If from a review of the maintenance records you can positively identify that the hours TIS for the exhaust tailpipe v-band coupling is 500 hours TIS or more or you cannot positively identify the hours TIS for the exhaust tailpipe v-band coupling: Do the initial replacement within 50 hours TIS after the effective date of this AD and replace repetitively thereafter at intervals not to exceed 500 hours TIS on the exhaust tailpipe v-band coupling.

(i) Replacement of the Exhaust Tailpipe V-Band Coupling

Replace the exhaust tailpipe v-band coupling for the airplanes in paragraphs (i)(1) through (3) at the applicable compliance time as specified in paragraph (h).

Note 1 to paragraph (i) of this AD: We recommend after installation of the exhaust tailpipe v-band coupling, you do an engine run and recheck the torque of the v-band coupling.

(1) Models A36TC and B36TC airplanes: Replace the exhaust tailpipe v-band coupling part number (P/N) N4211-375-M or P/N 5322C-375-Z with a new exhaust tailpipe v-band coupling. When installing the new part, tighten the v-band coupling to 40 in-lbs., tap the periphery of the band to distribute tension, and torque again to 40 in-lbs.

Note 2 to paragraph (i)(1) of this AD: P/Ns N4211-375-M and P/N 5322C-375-Z are also known as P/N N4211-375M and P/N 5322C3752. The engineering drawings list the applicable part number v-band couplings as P/N N4211-375-M and P/N

5322C-375-Z; however, the parts catalog lists the applicable v-band couplings as P/N N4211-375M and P/N 5322C3752.

(2) Models S35, V35, V35A, and V35B airplanes:

(i) For airplanes equipped with the Continental TSIO-520-D engine with AiResearch turbocharger during manufacture: Replace the exhaust tailpipe v-band coupling P/N U4211-375-M or P/N 4404C375-M with a new exhaust tailpipe v-band coupling. When installing a new P/N U4211-375-M, tighten the v-band coupling to 60 in-lbs., tap the periphery of the band to distribute tension, and torque again to 60 in-lbs. When installing a new P/N 4404C375-M, add 20 in-lbs after the running torque is overcome. Replacement of exhaust tailpipe v-band coupling P/N U4211-375-M or P/N 4404C375-M with the one-piece v-band coupling, P/N NH1000897-40, terminates the requirements of this AD.

Note 3 to paragraph (i)(2)(i) and (ii) of this AD: P/Ns U4211-375-M and 4404C375-M may also be known as P/Ns U4211-375M and 4404C375M or 4404C-375-M.

(ii) For airplanes equipped with STC SA1035WE: Replace the exhaust tailpipe v-band coupling P/N U4211-375-M with a new exhaust tailpipe v-band coupling. When installing the new part, tighten the v-band coupling to 60 in-lbs., tap the periphery of the band to distribute tension, and torque again to 60 in-lbs.

(j) Repetitive Visual Inspection of the Installed Exhaust Tailpipe V-Band Coupling

(1) If you remove the exhaust tailpipe v-band coupling during your annual inspection or within the compliance time specified in paragraph (j)(2) of this AD, you may do the inspection specified in paragraph (k) of this AD in lieu of the inspection required in paragraph (j) of this AD. If you already have the v-band coupling removed, doing the detailed inspection as specified in paragraph (k) of this AD eliminates the

possibility of having to remove and reinstall the v-band coupling more than once if certain conditions are found during the inspection required in paragraph (j) of this AD.

(2) At the next annual inspection after the effective date of this AD or within the next 12 months after the effective date of this AD, whichever occurs later, and repetitively thereafter at intervals not to exceed 12 months, do a visual inspection of the installed exhaust tailpipe v-band coupling. Use the inspection steps listed in paragraphs (j)(2)(i) through (vii) of this AD.

(i) Inspect the coupling and area around the coupling for signs of exhaust stains, sooting, or other evidence of exhaust leakage. If any of those conditions are found, remove the coupling and go to the inspection steps in paragraph (k) of this AD for inspection of a v-band coupling that has been removed.

(ii) Inspect the coupling outer band for cracks, paying particular attention to the spot weld areas. If cracks are found, before further flight, you must replace the v-band coupling with a new v-band coupling and restart the hours TIS for the repetitive replacement of the v-band coupling.

(iii) Inspect the coupling for looseness or separation of the outer band to the v-retainer segments(s) at all spot welds. If looseness or separation of the outer band to any or multiple retainer segments(s) is found, before further flight, you must replace the v-band coupling with a new v-band coupling and restart the hours TIS for the repetitive replacement of the v-band coupling.

(iv) Inspect the coupling outer band for cupping, bowing, or crowning. If any of these conditions are found, before further flight, remove the coupling and go to the inspection steps in paragraph (k) of this AD for inspection of a v-band coupling that has been removed.

(v) Inspect the area of the coupling, including the outer band, opposite the t-bolt for damage or distortion. If any damage or distortion is found, before further flight, you

must replace the v-band coupling with a new v-band coupling and restart the hours TIS for the repetitive replacement of the v-band coupling.

(vi) Using a mirror, verify there is a space between each v-retainer coupling segment below the t-bolt. If there is no space between each v-retainer coupling segment below the t-bolt, before further flight, you must replace the v-band coupling with a new v-band coupling and restart the hours TIS for the repetitive replacement of the v-band coupling.

(vii) Verify the v-band coupling nut is properly torqued as specified in paragraphs (j)(2)(vii)(A) through (C) of this AD:

(A) For P/N N4211-375-M or P/N 5322C-375-Z exhaust tailpipe v-band coupling, torque to 40 in-lbs.

(B) For P/N U4211-375-M exhaust tailpipe v-band coupling, torque to 60 in-lbs.

(C) For 4404C375-M exhaust tailpipe v-band coupling, verify the nut is secure. If not secure, before further flight, loosen and verify running torque and add 20 in-lbs to the running torque when tightened.

(3) These inspections do not terminate the 500-hour TIS repetitive replacement of the v-band coupling and do not restart the hours TIS for the repetitive replacement of the v-band coupling.

(k) Visual Inspection of a Removed Exhaust Tailpipe V-Band Coupling

(1) If during the visual inspection required in paragraph (j) of this AD you are required to remove of the exhaust tailpipe v-band coupling to do a more detailed inspection, you must do the inspection steps listed in paragraphs (k)(1) and (2) of this AD. If you removed the exhaust tailpipe v-band coupling during the annual inspection or within the compliance time specified in paragraph (j)(2) of this AD, you may do the inspection specified in paragraph (k) of this AD in lieu of the inspection required in paragraph (j) of this AD. If you already have the v-band coupling removed, doing the

detailed inspection as specified in paragraph (k) of this AD eliminates the possibility of having to remove and reinstall the v-band coupling more than once if certain conditions are found during the inspection required in paragraph (j) of this AD.

(i) Use crocus cloth and mineral spirits/Stoddard solvent, to clean the outer band of the v-band coupling. Pay particular attention to the spot weld areas on the coupling. If during cleaning corrosion cannot be removed or pitting of the v-band coupling is found, do not re-install the v-band coupling. Before further flight, you must install a new v-band coupling and restart the hours TIS for the repetitive replacement of the v-band coupling.

(ii) Use a 10X magnifier to visually inspect the outer band for cracks, paying particular attention to the spot weld areas. If cracks are found during this inspection, do not re-install the v-band coupling. Before further flight, you must install a new v-band coupling and restart the hours TIS for the repetitive replacement of the v-band coupling.

(iii) Visually inspect the flatness of the outer band using a straight edge. Lay the straight edge across the width of the outer band. The gap must be less than 0.062 inches. See figure 1 to paragraphs (k)(1)(iii) and (v) of this AD. If the gap exceeds 0.062 inches between the outer band and the straight edge, do not re-install the v-band coupling. Before further flight, you must install a new v-band coupling and restart the hours TIS for the repetitive replacement of the v-band coupling.

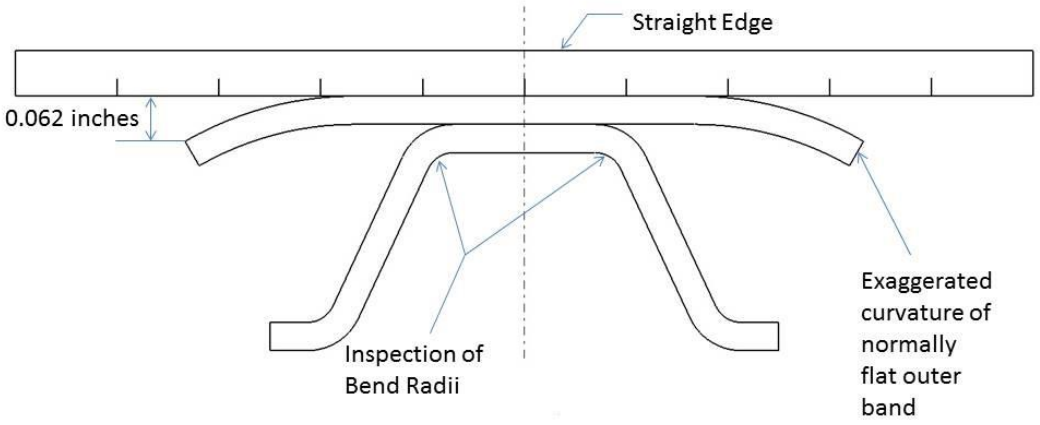

Figure 1 to paragraphs (k)(1)(iii) and (v) of this AD: Cross section of v-band coupling

(iv) With the t-bolt in the 12 o'clock position, visually inspect the coupling for the attachment of the outer band to the v-retainer coupling segments by inspecting for gaps between the outer band and the v-retainer coupling segments between approximately the 1 o'clock through 11 o'clock position. It is recommended to use backlighting to see gaps. If gaps between the outer band and the v-retainer coupling segments are found, do not re-install the v-band coupling. Before further flight, you must install a new v-band coupling and restart the hours TIS for the repetitive replacement of the v-band coupling.

(v) Visually inspect the bend radii of the coupling v-retainer coupling segments for cracks. Inspect the radii throughout the length of the segment. See figure 1 to paragraphs (k)(1)(iii) and (v) of this AD. If any cracks are found, do not re-install the

v-band coupling. Before further flight, you must install a new v-band coupling and restart the hours TIS for the repetitive replacement of the v-band coupling.

(vi) Visually inspect the outer band opposite the t-bolt for damage (distortion, creases, bulging, or cracks), which may be caused from excessive spreading of the coupling during installation and/or removal. If any damage is found, do not re-install the v-band coupling. Before further flight, you must install a new v-band coupling and restart the hours TIS for the repetitive replacement of the v-band coupling.

(2) If the removed exhaust tailpipe v-band coupling passes all of the inspection steps listed in paragraphs (k)(1)(i) through (vi) of this AD, you may re-install the same v-band coupling. After the coupling is re-installed and torqued as specified in Replacement of the V-Band Coupling, paragraph (i) of this AD, verify there is space between each v-retainer coupling segment below the t-bolt. If there is no space between each v-retainer coupling segment below the t-bolt, before further flight, you must install a new v-band coupling and restart the hours TIS for the repetitive replacement of the v-band coupling.

(3) The inspections required in paragraphs (k)(1) and (2) of this AD only apply to re-installing the same exhaust tailpipe v-band coupling that was removed as specified in paragraph (j) of this AD. It does not apply to installation of a new v-band coupling. These inspections do not terminate the 500-hour TIS repetitive replacement of the v-band coupling and do not restart the hours TIS for the repetitive replacement of the v-band coupling.

(4) As of the effective date of this AD, do not install a used exhaust tailpipe v-band coupling on the airplane except for the reinstallation of the inspected exhaust tailpipe v-band coupling that was removed as specified in paragraphs (j) and (k) of this AD.

(l) 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. The Manager, Chicago ACO Branch, FAA, has the authority to approve AMOCs concerning STC SA1035WE, 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 Wichita ACO Branch, send it to the attention of the person identified in paragraph (m) of this AD. If sending information directly to the manager of the Chicago ACO Branch, send it to the attention of John Tallarovic, Aerospace Engineer, AIR-7C3 Chicago ACO Branch, 2300 East Devon Avenue, Des Plaines, IL 60018-4696; telephone: (847) 294-8180; fax: (847) 294-7834; email: john.m.tallarovic@faa.gov.

(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.

(m) Related Information

For more information about this AD, contact Thomas Teplik, Aerospace Engineer, Wichita ACO Branch, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; phone: (316) 946-4196; fax: (316) 946-4107; email: thomas.teplik@faa.gov.

Issued in Kansas City, Missouri, on October 23, 2017.

William Schinstock,
Acting Deputy Director, Policy & Innovation Division,
Aircraft Certification Service.

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