



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0712; Product Identifier 2019-CE-013-AD; Amendment 39-21339; AD 2020-24-09]

RIN 2120-AA64

Airworthiness Directives; Piper Aircraft, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Piper Aircraft, Inc., Model PA-34-220T airplanes. This AD was prompted by a report of damage to the rudder flight control cables and the emergency power supply (EPS) system wiring due to inadequate clearance from the EPS wiring harness. This AD requires inspecting the rudder flight control cables and the EPS wiring for damage, replacing damaged cables and wires if necessary, and re-routing the EPS wiring harness to ensure proper clearance between the EPS and the rudder flight control cables. 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: Piper Aircraft, Inc., 2916 Piper Drive, Vero Beach, Florida 32960; telephone: (772) 567-4361; email: customer.service@piper.com; internet: <https://www.piper.com>. You may view this referenced 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-2020-0712; 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: Bryan Long, Aerospace Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, Georgia 30337; phone: (404) 474-5578; fax: (404) 474-5606; email: bryan.long@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain serial-numbered Piper Aircraft, Inc., Model PA-34-220T airplanes. The NPRM published in the *Federal Register* on July 28, 2020 (85 FR 45353). The NPRM was prompted by a report of damage to the rudder flight control cables and the EPS system wiring due to inadequate clearance from the EPS wiring harness. Use of the rudder flight control cable and the motion of the cable rubbing against the EPS wiring can wear through the rudder flight control cable insulation and cause an electrical path to ground. The flow of the electrical current can burn (arc) through the rudder flight control cable strands, eventually severing the rudder flight control cable. In the NPRM, the FAA proposed to require inspecting the rudder flight control cables and the EPS wiring for damage, replacing damaged cables and wires if necessary, and re-routing the EPS wiring harness to ensure proper clearance between the EPS and the rudder flight control cables.

This condition, if not addressed, could result in electrical arcing between the EPS and the rudder flight control cables with consequent failure of the rudder flight control system. This failure could cause loss of yaw control and lead to loss of control of the

airplane during an engine out condition/operation. The FAA is issuing this AD to address the unsafe condition on these products.

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 in the NPRM. 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 Piper Aircraft, Inc., Service Bulletin No. 1337, dated February 15, 2019. The service bulletin contains procedures for inspecting the rudder flight control cables and the EPS wiring for damage, replacing damaged cables and wires, and re-routing the EPS wiring harness to the opposite side of the EPS bracket to improve clearance from the rudder flight control cable. 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.

Costs of Compliance

The FAA estimates that this AD affects 25 airplanes of U.S. registry.

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

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspect the rudder flight control cables and the EPS wiring	1 work-hour X \$85 per hour = \$85	Not applicable	\$85	\$2,125
Re-routing the EPS wiring harness	2 work-hours X \$85 per hour = \$170	\$100	\$270	\$6,750

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 actions:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replace damaged rudder flight control cable	8 work-hours X \$85 per hour = \$680	\$157	\$837
Replace damaged EPS wiring	10 work-hours X \$85 per hour = \$850	\$2,770	\$3,620

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:

2020-24-09 Piper Aircraft, Inc.: Amendment 39-21339; Docket No. FAA-2020-0712; Product Identifier 2019-CE-013-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 Piper Aircraft, Inc., Model PA-34-220T airplanes, serial numbers 3449459 and 3449467 through 3449508, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 27. Flight Controls.

(e) Unsafe Condition

This AD was prompted by a report of damage to the rudder flight control cables and the emergency power supply (EPS) system wiring due to inadequate clearance from the EPS wiring harness. The FAA is issuing this AD to detect, correct, and prevent damaged rudder flight control cables and EPS system wiring. The unsafe condition, if not addressed, could result in electrical arcing between the EPS and the rudder flight control cables with consequent failure of the rudder flight control system. This failure could cause loss of yaw control and lead to loss of control of the airplane during an engine out condition/operation.

(f) Compliance

Unless already done, comply with this AD within 50 hours time-in-service after the effective date of this AD or within 6 months after the effective date of this AD, whichever occurs first.

(g) Inspect, Replace, and Relocate

(1) Inspect the rudder flight control cables and the EPS wiring for chafing and damage by following step 3 of the Instructions in Piper Service Bulletin No. 1337, dated February 15, 2019 (Piper SB No. 1337). If there is any chafing or damage, before further flight, replace the rudder flight control cable and EPS wiring.

(2) Relocate the EPS wiring harness by following steps 4 through 12 of the Instructions in Piper SB No. 1337.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta 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 (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) For service information that contains steps that are labeled as Required for Compliance (RC), the following provisions apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

(i) Related Information

For more information about this AD, contact Bryan Long, Aerospace Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, Georgia 30337; phone: (404) 474-5578; fax: (404) 474-5606; email: bryan.long@faa.gov.

(j) 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) Piper Service Bulletin No. 1337, dated February 15, 2019.

(ii) [Reserved]

(3) For the service information identified in this AD, contact Piper Aircraft, Inc., 2916 Piper Drive, Vero Beach, Florida 32960; telephone: (772) 567-4361; email: customer.service@piper.com; internet: <https://www.piper.com>.

(4) You may view this service information at 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, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on November 17, 2020.

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

[FR Doc. 2020-26473 Filed: 11/30/2020 8:45 am; Publication Date: 12/1/2020]