



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2020-0712; Product Identifier 2019-CE-013-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Piper Aircraft, 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 certain Piper Aircraft, Inc. Model PA-34-220T airplanes. This proposed 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 proposed AD would 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. The FAA is issuing this proposed 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 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 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:** 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](mailto:bryan.long@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2020-0712; Product Identifier 2019-CE-013-AD” at

the beginning of your comments. The FAA will consider all comments received by the closing date and may amend this proposed AD because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments we receive, without change, to <https://regulations.gov>, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact it receives about this proposed AD.

### **Confidential Business Information**

Confidential Business Information (CBI) is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Bryan Long, Aerospace Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, Georgia 30337. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

### **Discussion**

The FAA received a report from Piper Aircraft, Inc., that the emergency power supply (EPS) system wiring on Model PA-34-220T airplanes is installed in a way that may cause the wires to chafe against the rudder flight control cable. 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.

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.

### **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.

### **FAA's Determination**

The FAA is proposing this AD because it evaluated all 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.

### **Costs of Compliance**

The FAA estimates that this proposed AD would affect 25 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
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 proposed 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**

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):

**Piper Aircraft, Inc.:** Docket No. FAA-2020-0712; Product Identifier 2019-CE-013-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 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 Aircraft, Inc., 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 provisions of paragraphs (h)(3)(i) and (ii) of this AD 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**

(1) 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.

(2) For 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>. 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.

Issued on July 22, 2020.

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

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