

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Part 39**

[Docket No. 2003-CE-32-AD; Amendment 39-13476; AD 2004-03-32]

RIN 2120-AA64

**Airworthiness Directives; The New Piper Aircraft, Inc. Model PA-46-500TP Airplanes**

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

**ACTION:** Final rule.

**SUMMARY:** The FAA adopts a new airworthiness directive (AD) for certain The New Piper Aircraft, Inc. (Piper) Model PA-46-500TP airplanes. This AD requires you to replace all electronic control modules in the airplane electrical system with newly designed modules. This AD is the result of smoke in the cockpit and loss of electrical systems function. We are issuing this AD to prevent short circuit failure and electrical arcing of the electronic control modules, which could result in loss of the electrical systems components or burning of wiring insulation and cause smoke in the cockpit. This condition could lead to the inability to properly control the airplane.

**DATES:** This AD becomes effective on March 29, 2004.

As of March 29, 2004, the Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulation.

**ADDRESSES:** You may get the service information identified in this AD from The New Piper Aircraft, Inc., Customer Services, 2926 Piper Drive, Vero Beach, Florida 32960; telephone: (772) 567-4361; facsimile: (772) 978-6584.

You may view the AD docket at FAA, Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 2003-CE-32-AD, 901 Locust, Room 506, Kansas City, Missouri 64106. Office hours are 8 a.m. to 4 p.m., Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Kenneth B. Mobley, Aerospace Engineer, FAA, Atlanta Aircraft Certification Office, One Crown Center, 1895 Phoenix Boulevard, Suite 450, Atlanta, Georgia 30349; telephone: (770) 703-6046; facsimile: (770) 703-6097.

**SUPPLEMENTARY INFORMATION:**

**Discussion**

*What Events Have Caused This AD?*

We have received several reports that a condition exists in some of the

electrical control modules in the airplane electrical system.

FAA analysis indicates that there is inadequate clearance and inadequate electrical isolation between the load terminal and metal case. The modules load terminal is cutting through the rubber insulating grommet and contacting the module's metal case. This causes the electrical short circuit and electrical arcing.

The following electrical system components are potentially affected by this condition: engine start; strobe light; left/right taxi light; liquid crystal display (LCD) dimming; dual flasher (recognition light); left/right pitot heat; avionics dimming (Bezel buttons for radios); prop heat; left/right fuel pump; position light landing light; instrument panel light dimming; ice light; vent defog (vent blower); hi/low blower; stall heat; and dimmer switch lighting (overhead switch panel switches).

*What Is the Potential Impact If FAA Took No Action?*

If not corrected, short circuit failure and electrical arcing of the electronic control modules could result in loss of the electrical systems components or burning of wiring insulation and cause smoke in the cockpit. This condition could lead to the inability to properly control the airplane.

*Has FAA Taken Any Action to This Point?*

We issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to certain Piper Model PA-46-500TP airplanes. This proposal was published in the **Federal Register** as a notice of proposed rulemaking (NPRM) on October 9, 2003 (68 FR 58289). The NPRM proposed to require you to replace all electronic control modules in the airplane electrical system with newly designed modules.

**Comments**

*Was the Public Invited To Comment?*

We provided the public the opportunity to participate in developing this AD. The following presents the comment received on the proposal and FAA's response to the comment:

**Comment Issue: Revise Costs of Compliance**

*What Is the Commenter's Concern?*

The manufacturer recommends revising the costs of compliance based on the following, updated information:

—There are 152 airplanes affected by this AD instead of 130 as stated in the proposed AD;

—Although all affected airplanes will have the parts modified under warranty, 108 of the affected airplanes will get warranty credit for the labor costs to have the parts removed, replaced, and tested after reinstallation;

—The workhours for labor are 12 instead of 22 as stated in the proposed AD.

—The total cost on U.S. operators will be \$34,320 instead of \$185,900 as stated in the proposed AD based on 44 affected airplanes not covered under warranty for the labor costs, which are recalculated using 12 workhours.

*What Is FAA's Response to the Concern?*

We agree that the new cost data provided by the manufacturer be used in the AD.

We are changing the final rule AD action accordingly.

**Conclusion**

*What Is FAA's Final Determination on This Issue?*

We have carefully reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed except for minor editorial corrections. We have determined that these minor corrections:

—are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and

—do not add any additional burden upon the public than was already proposed in the NPRM.

**Changes to 14 CFR Part 39—Effect on the AD**

*How Does the Revision to 14 CFR Part 39 Affect This AD?*

On July 10, 2002, the FAA published a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's AD system. This regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance. This material previously was included in each individual AD. Since this material is included in 14 CFR part 39, we will not include it in future AD actions.

**Costs of Compliance**

*How Many Airplanes Does This AD Impact?*

We estimate that this AD affects 152 airplanes in the U.S. registry.

*What Is the Cost Impact of This AD on Owners/Operators of the Affected Airplanes?*

We estimate the following costs to accomplish the modification:

Labor cost	Parts cost	Total cost per airplane	Total cost on U.S. operators
12 workhours × \$65 per hour = \$780 .....	Parts are covered under warranty by the manufacturer for all affected airplanes.	\$780	\$780 × 44 = \$34,320.

There are 108 of the affected airplanes that are also covered under warranty for the labor costs to have the parts removed, replaced, and tested after reinstallation.

**Regulatory Findings**

*Will This AD Impact Various Entities?*

We have determined that 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.

*Will This AD Involve a Significant Rule or Regulatory Action?*

For the reasons discussed above, I certify that this AD:

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); 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.

We prepared a summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary by sending a request to us at the address listed under **ADDRESSES**. Include “AD Docket No. 2003–CE–32–AD” in your request.

**List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

**Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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. FAA amends § 39.13 by adding a new AD to read as follows:

**2004–03–32 The New Piper Aircraft, Inc.:**  
Amendment 39–13476; Docket No. 2003–CE–32–AD.

**When Does This AD Become Effective?**

(a) This AD becomes effective on March 29, 2004.

**What Other ADs Are Affected by This Action?**

(b) None.

**What Airplanes Are Affected by This AD?**

(c) This AD affects Model PA–46–500TP airplanes, serial numbers 4697001 through 4697140 and 4697142 through 4697153, that are certificated in any category.

**What Is the Unsafe Condition Presented in This AD?**

(d) This AD is the result of reports of smoke in the cockpit and loss of electrical system functions. We are issuing this AD to prevent short circuit failure of the electronic control modules, which could result in loss of the electrical system components or burning of wiring insulation and cause smoke in the cockpit. This condition could lead to the inability to properly control the airplane.

**What Must I Do To Address This Problem?**

(e) To address this problem, you must do the following:

Actions	Compliance	Procedures
(1) Remove the following parts: (i) the pilot’s circuit breaker panel assembly (part-number (P/N) 102228–002); (ii) the co-pilot’s circuit breaker panel assembly (P/N 102228–006); (iii) the dimmer lighting module assembly (P/N 102226–002); (iv) the stall vane heat module assembly (P/N 102227–002); and (v) the propeller heat module assembly (P/N 102227–006).	Within the next 100 hours time-in-service (TIS) after March 29, 2004 (the effective date of this AD).	Follow the instructions in Piper Service Bulletin No. 1132, dated June 4, 2003.
(2) Return the circuit breaker panels and the remote modules identified in paragraph (e)(1) of this AD to the manufacturer listed in paragraph (g) of this AD for modification.	Prior to further flight after doing the actions required in paragraph (e)(1) of this AD.	Follow the instructions in Piper Service Bulletin No. 1132, dated June 4, 2003.
(3) Visually inspect all remaining exposed wires and equipment for evidence of heat damage and repair any damage found.	Prior to further flight after doing the actions required in paragraph (e)(1) of this AD.	Follow the instructions in Piper Service Bulletin No. 1132, dated June 4, 2003.
(4) Install the modified circuit breaker panel assemblies and the remote modules received from the manufacturer.	Prior to further flight after doing the actions required in paragraphs (e)(1), (e)(2), and (e)(3) of this AD.	Follow the instructions in Piper Service Bulletin No. 1132, dated June 4, 2003.
(5) Do not install any part referenced in paragraph (e)(1) of this AD unless it has been modified per Piper Service Bulletin No. 1132, dated June 4, 2003.	As of March 29, 2004 (the effective date of this AD).	Not applicable.

**May I Request an Alternative Method of Compliance?**

(f) You may request a different method of compliance or a different compliance time for this AD by following the procedures in 14 CFR 39.19. Unless FAA authorizes otherwise, send your request to your principal inspector. The principal inspector may add comments and will send your request to the Manager, Atlanta Aircraft Certification Office (ACO), FAA. For information on any already approved alternative methods of compliance, contact Kenneth B. Mobley, Aerospace Engineer, FAA, Atlanta Aircraft Certification Office, One Crown Center, 1895 Phoenix Boulevard, Suite 450, Atlanta, Georgia 30349; telephone: (770) 703-6046; facsimile: (770) 703-6097.

**Does This AD Incorporate Any Material by Reference?**

(g) You must do the actions required by this AD following the instructions in Piper Service Bulletin No. 1132, dated June 4, 2003. The Director of the Federal Register approved the incorporation by reference of this service bulletin in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may get a copy from The New Piper Aircraft, Inc., Customer Services, 2926 Piper Drive, Vero Beach, Florida 32960; telephone: (772) 567-4361; facsimile: (772) 978-6584. You may review copies at FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri 64106; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Issued in Kansas City, Missouri, on February 5, 2004.

**Dorenda D. Baker,**  
*Manager, Small Airplane Directorate, Aircraft Certification Service.*  
 [FR Doc. 04-3050 Filed 2-17-04; 8:45 am]  
**BILLING CODE 4910-13-U**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

[Docket No. 2003-NM-191-AD; Amendment 39-13475; AD 2004-03-31]

RIN 2120-AA64

**Airworthiness Directives; Boeing Model 727, 727-100C, 727-200F, and 727C Series Airplanes**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 727, 727-100C, 727-200F, and 727C series airplanes, that requires repetitive open-hole high frequency eddy current inspections for cracks in the fuselage skin, strap (bearstrap), and doubler at the forward and aft hinge fittings for the main deck cargo door, and repair of any cracks found. This action is necessary to detect and correct such cracks, which could reach critical crack length and result in rapid decompression of the airplane. This action is intended to address the identified unsafe condition.

**DATES:** Effective March 24, 2004.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of March 24, 2004.

**ADDRESSES:** The service information referenced in this AD may be obtained from Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Ivan Li, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6437; fax (425) 917-6590.

**SUPPLEMENTARY INFORMATION:** A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Boeing Model 727, 727-100C, 727-200F, and 727C series airplanes was published in the **Federal Register** on November 18, 2003 (68 FR 64998). That action proposed to require repetitive open-hole high frequency eddy current inspections for cracks in the fuselage skin, strap (bearstrap), and doubler at the forward and aft hinge fittings for the main deck

cargo door, and repair of any cracks found.

**Comments**

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comment received.

**Request To Allow Designated Engineering Representative (DER) Approval**

The commenter, the manufacturer, requests that paragraph (b) of the proposed AD be revised to alternatively allow DERs to approve alternative methods of compliance (AMOC) for the actions specified in paragraph (a) of the proposed AD.

The FAA agrees. The option to allow DER approval of AMOCs was inadvertently omitted from paragraph (b) of the proposed AD. Therefore, we have revised paragraph (b) of this final rule to include that provision.

**Conclusion**

After careful review of the available data, including the comment noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the change previously described. The FAA has determined that this change will neither increase the economic burden on any operator nor increase the scope of the AD.

**Interim Action**

We consider this AD to be interim action. If final action is later identified, we may consider further rulemaking then.

**Cost Impact**

There are approximately 195 airplanes of the affected design in the worldwide fleet. We estimate that 133 airplanes of U.S. registry will be affected by this AD. We provide the following cost estimates to comply with this AD, per inspection cycle:

Group	Work hours	Hourly labor rate	Parts	Cost per airplane
1 .....	7	\$65	\$0	\$455
2 .....	8	\$65	\$0	\$520
3 .....	8	\$65	\$0	\$520