



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0830; Project Identifier 2020-CE-002-AD; Amendment 39-21428; AD 2021-04-07]

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 all Piper Aircraft, Inc., (Piper) Models PA-46-350P (Malibu Mirage), PA-46R-350T (Malibu Matrix), and PA-46-500TP (Malibu Meridian) airplanes. This AD was prompted by a finding of several airplanes with wing assemblies that did not have the proper stall warning heater modification design. Without the proper stall warning heat control modification kit installed, during flights into icing conditions with the landing gear down, ice can form on the stall vane, which may result in failure of the stall warning system. This AD requires identifying and correcting nonconforming stall warning heat control systems. 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: For service information identified in this final rule, contact Piper Aircraft Inc., 2926 Piper Drive, Vero Beach, FL 32960; phone: 772-299-2686; email: customerservice@piper.com; website: <https://www.piper.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-2020-0830.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0830; 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: John Lee, Aviation Safety Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474-5568; email: john.lee@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Piper Models PA-46-350P (Malibu Mirage), PA-46R-350T (Malibu Matrix), and PA-46-500TP (Malibu Meridian) airplanes. The NPRM published in the *Federal Register* on October 28, 2020 (85 FR 68255). The NPRM was prompted by the finding of airplanes without the proper stall warning heater modification design change. In the NPRM, the FAA proposed to require identifying and correcting nonconforming stall warning heat control systems.

The FAA issued AD 2008-26-11, Amendment 39-15777 (73 FR 78934, December 24, 2008) (“AD 2008-26-11”) for certain serial-numbered Piper Model PA-46-350P, PA-46R-350T, and PA-46-500TP airplanes. AD 2008-26-11 requires installing stall warning heat control modification kit part number 88452-002. For those serial-numbered airplanes to which AD 2008-26-11 does not apply, Piper incorporated the modification kit in production.

Since the FAA issued AD 2008-26-11, Piper found 11 airplanes (9 domestic) with the left wing replaced with a wing assembly from salvage that did not have the proper

stall warning heater modification design change. Without the proper stall warning heat control modification kit during flights into icing conditions with the landing gear down, ice can form on the stall vane, which may result in failure of the stall warning system. The FAA is issuing this AD to address the unsafe condition on these products.

This action will not affect AD 2008-26-11 and all actions of that AD will remain in place.

Discussion of Final Airworthiness Directive

Comments

The FAA received a comment from 1 commenter. The commenter supported the NPRM without change.

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. Except for minor editorial changes, this AD is adopted as proposed in the NPRM.

Related Service Information under 1 CFR Part 51

The FAA reviewed Piper Service Letter No. 1261, dated July 19, 2019. This service information specifies procedures to identify and correct nonconforming stall warning heat control systems. The intent of these service letters is to ensure that wiring for the stall warning heat control system meets current type design. 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 ADDRESSES.

Other Related Service Information

The FAA reviewed Piper Mandatory Service Bulletin No. 1192, dated September 15, 2008. This service bulletin is incorporated by reference in AD 2008-26-11.

Differences Between This AD and the Service Information

This AD does not require the first step, which is identified as a “required for compliance” (RC) step, of Piper Service Letter No. 1261, dated July 19, 2019. The first step specifies reviewing the aircraft records to determine whether the inspection of the stall warning heat control configuration must be done. This AD does not require a records

review. Instead, all airplanes identified in the applicability of this AD have to inspect the stall warning heat control configuration.

Costs of Compliance

The FAA estimates that this AD will affect 1,261 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 stall warning heat control system	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$107,185

The FAA estimates the following costs to do any necessary repairs that will be required based on the results of the inspection. The FAA has no way of determining the number of airplanes that might need these repairs:

On-condition costs

Action	Labor Cost	Parts Cost	Cost per product
Install modification kit	1.5 work-hours X \$85 per hour = \$127.50	\$230.00	\$357.50

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals.

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:

2021-04-07 Piper Aircraft, Inc.: Amendment 39-21428; Docket No. FAA-2020-0830; Project Identifier 2020-CE-002-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

(c) This AD applies to the following Piper Aircraft, Inc., airplanes, certificated in any category:

(1) Model PA-46-350P (Malibu Mirage) airplanes, serial numbers (S/Ns) 4622041, 4636041, 4636142, 4636143, 4636313, 4636341, and 4636379;

(2) Model PA-46-500TP (Malibu Meridian) airplanes, S/Ns 4697141, 4697161, 4697086, and 4697020; and

(3) Models PA-46-350P (Malibu Mirage), PA-46R-350T (Malibu Matrix), and PA-46-500TP (Malibu Meridian) airplanes, all serial numbers, if the left wing has been replaced with a serviceable (more than zero hours time-in-service) wing.

(d) Subject

Joint Aircraft System Component (JASC) 3700, VACUUM SYSTEM.

(e) Unsafe Condition

This AD was prompted by nonconforming stall warning heat control systems, utilizing a left wing assembly without the proper stall warning modification design. Without the proper stall warning heat control modification kit during flights into icing conditions with the landing gear down, ice can form on the stall vane, which may result in failure of the stall warning system. The FAA is issuing this AD to identify and correct nonconforming stall warning heat control systems. The unsafe condition, if not addressed, could result in the pilot being unaware of an approaching stall situation.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Actions

(1) Within 100 hours time-in-service (TIS) after the effective date of this AD or within 12 months after the effective date of this AD, whichever occurs first, inspect the configuration of stall warning heat control system and, if required, install stall warning heat control modification kit part number (P/N) 8452-002 before further flight in accordance with steps 2 and 3 of the Instructions in Piper Aircraft, Inc., Service Letter No. 1261, dated July 19, 2019.

(2) As of the effective date of this AD, do not install a wing on any Model PA-46-350P (Malibu Mirage), PA-46R-350T (Malibu Matrix), or PA-46-500TP (Malibu Meridian) airplane unless you have determined that the wing has the correct stall warning heat control system as required by paragraph (g)(1) of this AD.

(h) Special Flight Permit

A special flight permit may be issued to operate the airplane to a location where the requirements of this AD can be accomplished provided flight into known icing conditions is prohibited.

(i) 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 (j)(1) 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) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by a Piper Aircraft, Inc. Organization Designation Authorization (ODA) that has been authorized by the Manager, Atlanta ACO Branch to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(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

(j) Related Information

For more information about this AD, contact John Lee, Aviation Safety Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474-5568; email: john.lee@faa.gov.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) 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 Letter No. 1261, dated July 19, 2019.

(ii) [Reserved]

(3) For Piper Aircraft, Inc. service information identified in this AD, contact Piper Aircraft Inc., 2926 Piper Drive, Vero Beach, FL 32960; phone: 772-299-2686; email: customerservice@piper.com; website: <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 February 4, 2021.

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

[FR Doc. 2021-03499 Filed: 2/22/2021 8:45 am; Publication Date: 2/23/2021]