DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0830; Project Identifier 2020-CE-002-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 all Piper Aircraft, Inc., (Piper) Models PA-46-350P (Malibu Mirage), PA-46R-350T (Malibu Matrix), and PA-46-500TP (Malibu Meridian) airplanes. This proposed 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 proposed AD would require identifying and correcting nonconforming stall warning heat control systems. The FAA is proposing this 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.
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-2020-0830; 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 NPRM, 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: John Lee, Aerospace Engineer, Atlanta ACO Branch, FAA, AIR-7A3, 1701 Columbia Avenue, College Park, GA 30337; telephone: (404) 474-5568; email: john.lee@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-2020-0830; Project Identifier 2020-CE-002-AD” at the beginning of your comments. The most helpful comments reference a specific portion
of the proposal, explain the reason for any recommended change, and include supporting data. 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 received, without change, to https://www.regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposal.

**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 John Lee, Aerospace Engineer, Atlanta ACO Branch, FAA, AIR-7A3, 1701 Columbia Avenue, College Park, GA 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**

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.

This condition, if not addressed, could result in the pilot being unaware of an approaching stall situation and being unable to react correctly.

**Related Service Information under 1 CFR part 51**

The FAA reviewed Piper Service Letter No. 1261, dated July 19, 2019. The service information contains 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 the ADDRESSES section.

**Other Related Service Information**

Piper also issued Mandatory Service Bulletin No. 1192, dated September 15, 2008, which is incorporated by reference in AD 2008-26-11.

**FAA’s Determination**

The FAA is proposing this AD because it evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of these same type designs.

**Proposed AD Requirements**

This proposed AD would require accomplishing some of the actions specified in the service information described previously.
Differences Between Proposed AD and Service Information

This proposed AD would 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 proposed AD would not require a records review. Instead, all airplanes identified in the applicability of the proposed AD would have to inspect the stall warning heat control configuration.

Costs of Compliance

The FAA estimates that this proposed AD would affect 1,261 airplanes of U.S. registry.

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

**Estimated costs**

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor Cost</th>
<th>Parts Cost</th>
<th>Cost per product</th>
<th>Cost on U.S. operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspect stall warning heat control system</td>
<td>1 work-hour X $85 per hour = $85</td>
<td>$0</td>
<td>$85</td>
<td>$107,185</td>
</tr>
</tbody>
</table>

The FAA estimates the following costs to do any necessary repairs 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 these repairs:

**On-condition costs**

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor Cost</th>
<th>Parts Cost</th>
<th>Cost per product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Install modification kit</td>
<td>1.5 work-hours X $85 per hour = $127.50</td>
<td>$230.00</td>
<td>$357.50</td>
</tr>
</tbody>
</table>

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. The
FAA does not control warranty coverage for affected individuals. As a result, all costs are included in the cost estimate.

**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-2020-0830; Project Identifier 2020-CE-002-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

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

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

(2) Model PA-46-500TP (Malibu Meridian) 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), 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)/Air Transport Association (ATA) of America Code 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) For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraph (i)(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.

(j) Related Information

(1) For more information about this AD, contact John Lee, Aerospace Engineer, Atlanta ACO Branch, FAA, AIR-7A3, 1701 Columbia Avenue, College Park, GA 30337; telephone: (404) 474-5568; email: john.lee@faa.gov.

(2) For service information identified in this AD, contact Piper Aircraft Inc., 2926 Piper Drive, Vero Beach, FL 32960, telephone: 772-299-2686, email: customerservice@piper.com, internet: https://www.piper.com/. You may view the service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901
Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call 816-329-4148.

Issued on October 22, 2020.

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