

Airworthiness Directive

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [64 FR 34530 No. 123 06/28/99]

Docket No. 98-CE-77-AD; Amendment 39-11209; AD 99-14-01

RIN 2120-AA64

Airworthiness Directives; The New Piper Aircraft, Inc. PA-23, PA-30, PA-31, PA-34, PA-39, PA-40, and PA-42 Series Airplanes

PDF Copy (If Available):

▼ Preamble Information

AGENCY: Federal Aviation Administration, DOT

ACTION: Final rule

SUMMARY: This amendment supersedes Airworthiness Directive (AD) 98-04-27, which currently requires incorporating certain icing information into the FAA-approved airplane flight manual (AFM) of The New Piper Aircraft, Inc. (Piper) PA-23, PA-30, PA-31, PA-34, PA-39, PA-40, and PA-42 series airplanes. The Federal Aviation Administration (FAA) inadvertently omitted Piper Models PA-31P, PA-31T, PA-31T1, PA-31T2, and PA-31P-350 airplanes from the Applicability section of AD 98-04-27. This AD retains the requirement of incorporating the icing information into the AFM for all airplanes affected by AD 98-04-27, and adds Piper Models PA-31P, PA-31T, PA-31T1, PA-31T2, and PA-31P-350 airplanes to the Applicability section of the AD. The actions specified by this AD are intended to minimize the potential hazards associated with operating these airplanes in severe icing conditions by providing more clearly defined procedures and limitations associated with such conditions.

DATES: Effective August 17, 1999.

ADDRESSES: Information related to this AD may be examined at the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 98-CE-77-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

FOR FURTHER INFORMATION CONTACT: Mr. John P. Dow, Sr., Aerospace Engineer, FAA, Small Airplane Directorate, 1201 Walnut, suite 900, Kansas City, Missouri 64106; telephone: (816) 426-6932; facsimile: (816) 426-2169.

SUPPLEMENTARY INFORMATION:

Events Leading to the Issuance of This AD

A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to Piper PA-23, PA-30, PA-31, PA-34, PA-39, PA-40, and PA-42 series airplanes was published in the **Federal Register** on September 24,

1998 (63 FR 51045). The NPRM proposed to supersede AD 98-04-27, Amendment 39-10339 (63 FR 7668, February 17, 1998). AD 98-04-27 currently requires revising the Limitations Section of the FAA-approved airplane flight manual (AFM) to specify procedures that would specify the following for PA-23, PA-30, PA-31, PA-34, PA-39, PA-40, and PA-42 series airplanes:

- require flight crews to immediately request priority handling from Air Traffic Control to exit severe icing conditions (as determined by certain visual cues);
- prohibit flight in severe icing conditions (as determined by certain visual cues);
- prohibit use of the autopilot when ice is formed aft of the protected surfaces of the wing, or when an unusual lateral trim condition exists; and
- require that all icing wing inspection lights be operative prior to flight into known or forecast icing conditions at night.

AD 98-04-27 also required revising the Normal Procedures Section of the FAA-approved AFM to specify procedures that would:

- limit the use of the flaps and prohibit the use of the autopilot when ice is observed forming aft of the protected surfaces of the wing, or if unusual lateral trim requirements or autopilot trim warnings are encountered; and
- provide the flight crew with recognition cues for, and procedures for exiting from, severe icing conditions.

The NPRM proposed to retain from AD 98-04-27 the requirement of incorporating certain icing information into the FAA-approved AFM for the affected airplanes, and would add Piper Models PA-31P, PA-31T, PA-31T1, PA-31T2, and PA-31P-350 airplanes to the Applicability section of the AD.

The NPRM was the result of the FAA inadvertently omitting Piper Models PA-31P, PA-31T, PA-31T1, PA-31T2, and PA-31P-350 airplanes from the Applicability section of AD 98-04-27.

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were received on the proposed rule or the FAA's determination of the cost to the public.

The FAA's Determination

After careful review of all available information related to the subject presented above, the FAA has determined that air safety and the public interest require the adoption of the rule as proposed except for minor editorial corrections. The FAA has determined that these minor corrections will not change the meaning of the AD and will not add any additional burden upon the public than was already proposed.

Cost Impact

The FAA estimates that 5,265 airplanes in the U.S. registry will be affected by this AD, that it will take approximately 1 workhour per airplane to accomplish this action, and that the average labor rate is approximately \$60 an hour. Since an owner/operator who holds at least a private pilot's certificate as authorized by sections 43.7 and 43.9 of the Federal Aviation Regulations (14 CFR 47.7 and 43.9) can accomplish this action, the only cost impact upon the public is the time it will take the affected airplane owners/operators to incorporate the AFM revisions.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator will accomplish these actions in the future if this AD were not adopted.

In addition, the FAA recognizes that this action may impose operational costs. However, these costs are incalculable because the frequency of occurrence of the specified conditions and the associated additional flight time cannot be determined. Nevertheless, because of the severity of the unsafe condition, the FAA has determined

that continued operational safety necessitates the imposition of the costs.

Regulatory Impact

The regulations adopted herein will not have substantial direct effects 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. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under 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. A copy of the final evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption "ADDRESSES".

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, pursuant to 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. Section 39.13 is amended by removing Airworthiness Directive (AD) 98-04-27, Amendment 39-10339 (63 FR 7668, February 17, 1998), and by adding a new AD to read as follows:

▼ Regulatory Information

99-14-01 THE NEW PIPER AIRCRAFT, INC.: Amendment 39-11209; Docket No. 98-CE- 77-AD; Supersedes AD 98-04-27, Amendment 39-10339.

Applicability: Models PA-23, PA-23-160, PA-23-235, PA-23-250, PA-E23-250, PA-30, PA-39, PA-40, PA-31, PA-31-300, PA-31-325, PA-31-350, PA-31P, PA-31T, PA-31T1, PA- 31T2, PA-31P-350, PA-34-200, PA-34-200T, PA-34-220T, PA-42, PA-42-720, and PA-42-1000 airplanes, all serial numbers, certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as follows, unless already accomplished:

1. For all affected airplanes, except for Models PA-31P, PA-31T, PA-31T1, PA-31T2, and PA-31P-350 airplanes: Within 30 days after March 13, 1997 (the effective date of AD 98-04-27).

2. For all Models PA-31P, PA-31T, PA-31T1, PA-31T2, and PA-31P-350 airplanes: Within the next 30 days after the effective date of this AD.

To minimize the potential hazards associated with operating the airplane in severe icing conditions by providing more clearly defined procedures and limitations associated with such conditions, accomplish the following:

(a) At the applicable compliance time presented in the Compliance section of this AD, accomplish the requirements of paragraphs (a)(1) and (a)(2) of this AD.

NOTE 2: Operators should initiate action to notify and ensure that flight crewmembers are apprised of this change.

(1) Revise the FAA-approved Airplane Flight Manual (AFM) by incorporating the following into the Limitations Section of the AFM. This may be accomplished by inserting a copy of this AD in the AFM.

"WARNING

Severe icing may result from environmental conditions outside of those for which the

airplane is certificated. Flight in freezing rain, freezing drizzle, or mixed icing conditions (supercooled liquid water and ice crystals) may result in ice build-up on protected surfaces exceeding the capability of the ice protection system, or may result in ice forming aft of the protected surfaces. This ice may not be shed using the ice protection systems, and may seriously degrade the performance and controllability of the airplane.

- During flight, severe icing conditions that exceed those for which the airplane is certificated shall be determined by the following visual cues. If one or more of these visual cues exists, immediately request priority handling from Air Traffic Control to facilitate a route or an altitude change to exit the icing conditions.

- Unusually extensive ice accumulation on the airframe and windshield in areas not normally observed to collect ice.

- Accumulation of ice on the upper surface of the wing, aft of the protected area.

- Accumulation of ice on the engine nacelles and propeller spinners farther aft than normally observed.

- Since the autopilot, when installed and operating, may mask tactile cues that indicate adverse changes in handling characteristics, use of the autopilot is prohibited when any of the visual cues specified above exist, or when unusual

lateral trim requirements or autopilot trim warnings are encountered while the airplane is in icing conditions.

- All wing icing inspection lights must be operative prior to flight into known or forecast icing conditions at night. [NOTE: This supersedes any relief provided by the Master Minimum Equipment List (MMEL).]"

(2) Revise the FAA-approved AFM by incorporating the following into the Normal Procedures Section of the AFM. This may be accomplished by inserting a copy of this AD in the AFM.

**"THE FOLLOWING WEATHER CONDITIONS
MAY BE CONDUCTIVE TO SEVERE
IN-FLIGHT ICING:**

- Visible rain at temperatures below 0 degrees Celsius ambient air temperature.
- Droplets that splash or splatter on impact at temperatures below 0 degrees Celsius ambient air temperature.

**PROCEDURES FOR EXITING
THE SEVERE ICING ENVIRONMENT:**

These procedures are applicable to all flight phases from takeoff to landing. Monitor the ambient air temperature. While severe icing may form at temperatures as cold as -18 degrees Celsius, increased vigilance is warranted at temperatures around freezing with visible moisture present. If the visual cues specified in the Limitations Section of the AFM for identifying severe icing conditions are observed, accomplish the following:

- Immediately request priority handling from Air Traffic Control to facilitate a route or an altitude change to exit the severe icing conditions in order to avoid extended exposure to flight conditions more severe than those for which the airplane has been certificated.
- Avoid abrupt and excessive maneuvering that may exacerbate control difficulties.
- Do not engage the autopilot.
- If the autopilot is engaged, hold the control wheel firmly and disengage the autopilot.
- If an unusual roll response or uncommanded roll control movement is observed, reduce the angle-of-attack.
- Do not extend flaps when holding in icing conditions. Operation with flaps extended can result in a reduced wing angle-of-attack, with the possibility of ice forming on the

upper surface further aft on the wing than normal, possibly aft of the protected area.

- If the flaps are extended, do not retract them until the airframe is clear of ice.
- Report these weather conditions to Air Traffic Control."

(b) Incorporating the AFM revisions, as required by this AD, may be performed by the owner/operator holding at least a private pilot certificate as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7), and must be entered into the aircraft records showing compliance with this AD in accordance with section 43.9 of the Federal Aviation Regulations (14 CFR 43.9).

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

(d) An alternative method of compliance or adjustment of the compliance time that provides an equivalent level of safety may be approved by the Manager, Small Airplane Directorate, FAA, 1201 Walnut, suite 900, Kansas City, Missouri 64106. The request shall be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Small Airplane Directorate.

NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Small Airplane Directorate.

(e) All persons affected by this directive may examine information related to this AD at the FAA, Central Region, Office of the Regional Counsel, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

(f) This amendment supersedes AD 98-04-27, Amendment 39-10339.

(g) This amendment becomes effective on August 17, 1999.

▼ Footer Information

▼ Comments