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## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. 97-CE-32-AD; Amendment 39-11189; AD 99-12-05]

RIN 2120-AA64

#### Airworthiness Directives; The New Piper Aircraft, Inc. Models PA-31, PA-31-300, PA-31-325, PA-31-350, and PA-31P-350 Airplanes

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

**ACTION:** Final rule.

**SUMMARY:** This amendment adopts a new airworthiness directive (AD) that applies to certain The New Piper Aircraft, Inc. (Piper) Models PA-31, PA-31-300, PA-31-325, PA-31-350, and PA-31P-350 airplanes. This AD requires installing access holes for the inspection of the elevator spar; inspecting the elevator ice protection boots for looseness and reinstalling or replacing the elevator ice protection boots if looseness is found. This AD also requires repetitively inspecting the elevator spars for cracks, and replacing the elevators or elevator spar assemblies with parts of improved design either at a certain time period or when cracks are found, whichever occurs first. This AD is the result of reports of cracks developing in the elevator spar inboard of the outboard hinge location on the affected airplanes. The actions specified by this AD are intended to prevent failure of the elevator spar caused by fatigue cracking, which could result in reduced airplane controllability.

**DATES:** Effective July 23, 1999.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of July 23, 1999.

**ADDRESSES:** Service information that applies to this AD may be obtained from The New Piper Aircraft, Inc., Customer Services, 2926 Piper Drive, Vero Beach, Florida 32960. This information may also be examined at the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 97-CE-32-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** William Herderich, Aerospace Engineer, FAA, Atlanta Certification Office, One Crown Center, 1895 Phoenix Boulevard, suite 450, Atlanta, Georgia 30349; telephone: (770) 703-6084; facsimile: (770) 703-6097.

#### 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 certain Piper Models PA-31, PA-31-300, PA-31-325, PA-31-350, and PA-31P-350 was published in the **Federal Register** as a notice of proposed rulemaking (NPRM) on November 25, 1998 (63 FR 65147). The NPRM proposed to require installing access holes for the inspection of the elevator spar; inspecting the elevator ice protection boots for looseness and reinstalling or replacing the elevator ice protection boots if looseness is found. The NPRM also proposed to require repetitively inspecting the elevator spars for cracks, and replacing the elevators or elevator spar assemblies with parts of improved design either at a certain time period or when cracks are found, whichever occurs first.

Accomplishment of the proposed inspection access holes installation, inspections, and elevator ice protection boots reinstallation or replacement as specified in the NPRM is required in accordance with Piper Service Bulletin No. 998A, dated August 4, 1997.

Accomplishment of the installation of the improved design elevators or elevator spar assemblies as specified in the NPRM is required in accordance with the maintenance manual.

The NPRM was the result of reports of cracks developing in the elevator spar

inboard of the outboard hinge location on the affected airplanes.

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.

#### The FAA's Aging Commuter Aircraft Policy

The actions required in this AD are consistent with the FAA's aging commuter aircraft policy, which briefly states that, when a modification exists that could eliminate or reduce the number of required critical inspections, the modification should be incorporated. This policy is based on the FAA's determination that reliance on critical repetitive inspections on airplanes utilized in commuter service carries an unnecessary safety risk when a design change exists that could eliminate or, in certain instances, reduce the number of those critical inspections. In determining what inspections are critical, the FAA considers (1) the safety consequences of the airplane if the known problem is not detected by the inspection; (2) the reliability of the inspection such as the probability of not detecting the known problem; (3) whether the inspection area is difficult to access; and (4) the possibility of damage to an adjacent structure as a result of the problem.

The alternative to replacing the elevators or elevator spar assemblies with ones of improved design would be to repetitively inspect this area for the life of the airplane.

#### Cost Impact

The FAA estimates that 1,739 airplanes in the U.S. registry will be affected by this AD.

The inspection holes installation and initial inspections will take

approximately 2 workhours per airplane to accomplish with an average labor rate of approximately \$60 an hour. Parts cost approximately \$26 per airplane. Based on these figures, the total cost impact of the inspection access holes installation and initial inspections on U.S. operators is estimated to be \$253,894, or \$146 per airplane.

These figures only take into account the costs of the initial inspection and do not take into account the costs of repetitive inspections. The FAA has no way of determining the number of repetitive inspections an owner/operator will incur over the life of the airplane before the replacement becomes mandatory.

The elevator spar assembly replacements will take approximately 36 workhours per airplane to accomplish with an average labor rate of approximately \$60 an hour. Parts cost approximately \$600 per airplane (\$300 per elevator spar assembly with 2 elevator spar assemblies per airplane). Based on these figures, the total cost impact of the elevator spar assembly replacement on U.S. operators is estimated to be \$4,799,640, or \$2,760 per airplane.

According to Piper, numerous airplanes already have complied with the initial inspection requirements of this AD, specifically most of the Model PA-31-350 airplanes since many of these are used in commuter service.

**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, Incorporation by reference, 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 adding a new airworthiness directive (AD) to read as follows:

**99-12-05 The New Piper Aircraft, Inc.:**  
Amendment 39-11189; Docket No. 97-CE-32-AD.

**Applicability:** The following airplane model and serial numbers, certificated in any category, that are not equipped with the applicable improved design elevators or elevator spar assemblies specified in the "Replacement Elevator P/N" and "Replace Spar P/N" columns of the "Material Required Table" on page 4 of Piper Service Bulletin No. 998A, dated August 4, 1997:

Models	Serial No.
PA-31, PA-31-300, and PA-31-325.	31-2 through 31-8312019
PA-31-350 .....	31-5001 through 31-8553002
PA-31P-350 .....	31P-8414001 through 31P-8414050

**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 (g) 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 indicated in the body of this AD, unless already accomplished.

To prevent failure of the elevator spar caused by fatigue cracking, which could result in reduced airplane controllability, accomplish the following:

(a) Upon accumulating 2,500 hours time-in-service (TIS) on each elevator spar

assembly or within the next 100 hours TIS after the effective date of this AD, whichever occurs later, accomplish the following in accordance with the INSTRUCTIONS section of Piper Service Bulletin No. 998A, dated August 4, 1997:

(1) Install access holes for the inspection of the elevator spar;

(2) Inspect the elevator spars for cracks; and

(3) Inspect the elevator ice protection boots for looseness.

(b) If the elevator ice protection boots are found loose during the inspection required by paragraph (a)(3) of this AD, prior to further flight, reinstall or replace the elevator ice protection boots in accordance with the INSTRUCTIONS section of Piper Service Bulletin No. 998A, dated August 4, 1997.

(c) If no cracks are found in the elevator spars during the inspection required by paragraph (a)(2) of this AD, reinspect the elevator spars for cracks at intervals not to exceed 100 hours TIS, provided no cracks are found (if cracks are found, refer to paragraphs (d) and (d)(1) of this AD).

(d) At whichever of the compliance times presented in paragraphs (d)(1) and (d)(2) of this AD that occurs first, replace each elevator or elevator spar assembly with a part of improved design as specified in the "Replacement Elevator P/N" and "Replace Spar P/N" columns of the "Material Required Table" on page 4 of Piper Service Bulletin No. 998A, dated August 4, 1997. Accomplish these replacements in accordance with the applicable maintenance manual.

(1) Prior to further flight on any elevator spar assembly where any cracks are found during the initial inspection required by paragraph (a)(2) of this AD or any repetitive inspection required by paragraph (c) of this AD; or

(2) Within 1,000 hours TIS after the initial inspection required by paragraph (a)(2) of this AD.

(e) Replacing both the left and right elevators or elevator spar assemblies with parts of improved design as specified in the "Replacement Elevator P/N" and "Replace Spar P/N" columns of the "Material Required Table" on page 4 of Piper Service Bulletin No. 998A, dated August 4, 1997, is considered terminating action for the repetitive inspection requirement of this AD.

(1) This action may be accomplished at any time to terminate the repetitive inspections, but must be accomplished prior to further flight on any elevator spar found cracked or within 1,000 hours TIS after the initial inspection, whichever occurs first.

(2) If one elevator spar assembly is replaced prior to further flight when a crack is found, the other elevator spar assembly must still be repetitively inspected every 100 hours TIS until replacement at 1,000 hours TIS after the initial inspection or when cracks are found, whichever occurs first.

(f) Special flight permits may be issued in accordance with §§ 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.

(g) An alternative method of compliance or adjustment of the initial or repetitive

compliance times that provides an equivalent level of safety may be approved by the Manager, Atlanta Aircraft Certification Office (ACO), One Crown Center, 1895 Phoenix Boulevard, Suite 450, Atlanta, Georgia 30349. The request shall be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Atlanta ACO.

**Note 2:** Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Atlanta ACO.

(h) The installations, inspections, and replacements required by this AD shall be done in accordance with Piper Service Bulletin No. 998A, dated August 4, 1997. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from The New Piper Aircraft, Inc., 2926 Piper Drive, Vero Beach, Florida 32960. Copies may be inspected at the FAA, Central Region, Office of the Regional Counsel, Room 1558, 601 E. 12th Street, Kansas City, Missouri, or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

(i) This amendment becomes effective on July 23, 1999.

Issued in Kansas City, Missouri, on June 2, 1999.

**Marvin R. Nuss,**

*Acting Manager, Small Airplane Directorate, Aircraft Certification Service.*

[FR Doc. 99-14535 Filed 6-11-99; 8:45 am]

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## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. 99-CE-22-AD; Amendment 39-11193; AD 99-12-02]

RIN 2120-AA64

#### **Airworthiness Directives; Raytheon Aircraft Company Beech Models 45 (YT-34), A45 (T-34A, B-45), and D45 (T-34B) Airplanes**

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

**ACTION:** Final rule; request for comments.

**SUMMARY:** This document publishes in the **Federal Register** an amendment adopting Airworthiness Directive (AD) 99-12-02, which was sent previously to all known U.S. owners and operators of Raytheon Aircraft Corporation (Raytheon) Beech Models 45 (YT-34), A45 (T-34A, B-45), and D45 (T-34B) airplanes. This AD requires incorporating operating limitations that restrict operation of the airplanes to normal category operation and prohibit

them from acrobatic and utility category operations; limit the flight load factor to 0 to 2.5 G; and limit the maximum airspeed to 175 miles per hour (mph) (152 knots). This AD resulted from a report of an in-flight separation of the right wing on a Raytheon Beech Model A45 (T-34A) airplane. The actions specified by this AD are intended to assure the operational safety of the above-referenced airplanes.

**DATES:** Effective July 9, 1999, to all persons except those to whom it was made immediately effective by priority letter AD 99-12-02, issued May 28, 1999, which contained the requirements of this amendment.

Comments for inclusion in the Rules Docket must be received on or before July 30, 1999.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket 99-CE-22-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

Information related to this AD may be examined at the Rules Docket at the address above.

**FOR FURTHER INFORMATION CONTACT:** Mr. Paul Nguyen, Aerospace Engineer, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas, 67209, telephone: (316) 946-4125; facsimile: (316) 946-4407.

#### **SUPPLEMENTARY INFORMATION:**

##### **Discussion**

On May 28, 1999, the FAA issued priority letter AD 99-12-02, which applies to all Raytheon Beech Models 45 (YT-34), A45 (T-34A, B-45), and D45 (T-34B) airplanes. That AD resulted from a report of an in-flight separation of the right wing on a Raytheon Beech Model A45 (T-34A) airplane. The airplane was involved in mock aerial combat with another Beech Model A45 (T-34A) airplane.

The left wing remained attached to the airplane following separation of the right wing. As the airplane made ground contact, the left wing forward and rear spars and wing attach fittings sustained overload fractures.

Examination of the right wing revealed structural fatigue cracks at several of the fracture surfaces. Although it did not separate from the airplane, the left wing also showed structural fatigue cracks at several locations.

Priority letter AD 99-12-02 requires fabricating two placards using letters of at least 1/10-inch in height with each consisting of the following words, and

installing these placards on the airplane instrument panels (one on the front panel and one on the rear panel) next to the airspeed indicators within the pilot's clear view:

Never exceed speed, Vne-175 MPH (152 knots) IAS; Normal Acceleration (G) Limits -0, and +2.5; ACROBATIC MANEUVERS PROHIBITED.

This AD also requires marking the airspeed indicators to specify the limitations referenced in the placards, and incorporating a copy of the AD into the Limitations Section of the Airplane Flight Manual (AFM).

#### **The FAA's Determination and Explanation of the AD**

Since an unsafe condition was identified that is likely to exist or develop in other Raytheon Beech Models 45 (YT-34), A45 (T-34A, B-45), and D45 (T-34B) airplanes of the same type design airplanes, the FAA:

1. Determined that the Beech Models 45 (YT-34), A45 (T-34A, B-45), and D45 (T-34B) airplanes should not be operated without restrictions until the wing structure has been inspected in accordance with inspection procedures approved by the FAA, and the structure is found to be free of cracks;

2. Determined that all of the above-referenced airplanes should be restricted to normal category operation and prohibited from acrobatic and utility category operations; the flight load factor should be limited to 0 to 2.5 G; and the maximum airspeed should be limited to 175 miles per hour (mph) (152 knots);

3. Determined that immediate AD action should be taken to assure the operational safety of these airplanes; and

4. Issued AD 99-12-02 as a priority letter on May 28, 1999.

#### **Determination of the Effective Date of the AD**

Since it was found that immediate corrective action was required, notice and opportunity for prior public comment thereon were impracticable and contrary to the public interest, and good cause existed to make the AD effective immediately by individual letters issued on May 28, 1999, to all known U.S. operators of Raytheon Beech Models 45 (YT-34), A45 (T-34A, B-45), and D45 (T-34B) airplanes. These conditions still exist, and the AD is hereby published in the **Federal Register** as an amendment to section 39.13 of the Federal Aviation Regulations (14 CFR 39.13) to make it effective as to all persons.