

Advisory Circular

Subject: Preventive Maintenance

Date: 4/18/07 Initiated by: AFS-350 AC No: 43-12A Change: 1

1. PURPOSE. This advisory circular (AC) has been updated to reflect changes to Title 14 of the Code of Federal Regulations (14 CFR) part 43, regarding preventive maintenance.

2. PRINCIPLE CHANGES. This change removes paragraphs 4f and 4g previously included in AC 43-12A to explain the extensive rule changes effective October 15, 1982. This change incorporates current revisions to part 43 including:

a. Paragraph 3b(3) references part 43, appendix A, paragraph (c)(30), which defines when inspection and maintenance tasks are considered preventive maintenance.

b. Paragraph 3c(1) adds § 43.3 (h) and (i) and removes obsolete references to § 43.5.

c. Paragraph 3c(2) references conditions included in § 43.3 (h) and (i) under which holders of certificates issued under 14 CFR part 135 may perform preventive maintenance.

d. Paragraph 3c(3) includes the addition of holders of sport pilot certificates to those who may perform preventive maintenance as described in §§ 43.3 and 43.7.

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ORIGINAL SIGNED BY Roger C. Forshee for

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1. PURPOSE. This advisory circular (AC) provides information concerning preventive maintenance, including who may perform it, the standards of performance applicable to it, authority for approval for return to service, and the applicable recording requirements. This AC clarifies those areas most frequently misunderstood in the past.

2. RELATED 14 CFR REFERENCES.

- **a.** Title 14 of the Code of Federal Regulations (14 CFR) part 1, § 1.1, General definitions.
- **b.** Part 43, Maintenance, preventive maintenance, rebuilding, and alteration.
- c. Part 61, Certification: Pilots, flight instructors, and ground instructors.
- d. Part 91, General operating and flight rules.
- e. Part 145, Repair stations.

3. PREVENTIVE MAINTENANCE.

a. Focus.

(1) The following are authorized to perform preventive maintenance and other maintenance:

- The holders of mechanic and repairman certificates
- Persons working under the supervision of these mechanics and repairman
- Repair stations certificated under part 145
- Air carriers certificated under 14 CFR parts 121 and 135

(2) Because these persons are authorized to perform maintenance functions as both preventive and other maintenance, it is of little consequence to them how a particular function is classified. Additionally, the procedures used in approving items for return to service and

recording preventive and other maintenance are identical. This AC will, therefore, consider preventive maintenance from the point of view of the owner/operator or pilot.

b. Preventive Maintenance. Section 1.1, defines preventive maintenance as "simple or minor preservation operations and the replacement of small standard parts not involving complex assembly operations."

(1) Part 43, appendix A, paragraph (c) contains the Federal Aviation Administration's (FAA) list of tasks that meet the requirements of the preventive maintenance definition. If a task or maintenance function does not appear in the list, it is not preventive maintenance. Also, because of differences in aircraft, a function may be preventive maintenance on one aircraft and not on another. To provide for this, paragraph (c) contains the limitation, "provided it does not involve complex assembly operations" on the aircraft involved. Owners and pilots must use good judgment when determining if a specific function should be classified as preventive maintenance.

(2) As described in part 43, appendix A, paragraph (c)(30), inspection and maintenance tasks are considered preventive maintenance if they are prescribed and specifically identified as preventive maintenance in a primary category aircraft type certificate or Supplemental Type Certificate holder's approved special inspection and preventive maintenance program. The tasks must be performed by the holder of at least a private pilot certificate issued under part 61 who is the registered owner (or co-owner) of the aircraft.

c. Authorization to Perform Preventive Maintenance and Approve for Return to Service.

(1) In addition to those persons listed in paragraph 3a, § 43.3(g), (h), and (i) authorize the holder of a pilot certificate issued under part 61 to perform preventive maintenance. Section 43.7 limits the privilege to persons holding at least a private or sport pilot certificate and § 91.407(a)(1) prohibits operation of the aircraft unless approved for return to service. Further, pilots may only approve for return to service preventive maintenance which they themselves have accomplished.

(2) A pilot may only perform preventive maintenance on an aircraft used under part 135 if the conditions of 43.3(h) and (i) are met.

(3) The holder of a sport pilot certificate may perform preventive maintenance on an aircraft owned or operated by that pilot and issued a Special Airworthiness Certificate in the light-sport category.

NOTE: A pilot may not perform preventive maintenance on aircraft used under part 121, even if the pilot owns the aircraft.

d. Applicable Performance Standards. Section 43.13 requires that those performing preventive maintenance do the following:

(1) Use methods, techniques, and practices acceptable to the Administrator. These are normally set forth in the manufacturer's maintenance manuals; however, some may be found in ACs published by the FAA.

(2) Use the tools, equipment, and test apparatus necessary to ensure the work is completed in accordance with accepted industry practices. This means that the person performing the preventive maintenance must use proper tools and test apparatus, appropriately calibrated, if applicable. Normally these are listed as part of any FAA-approved manufacturer's maintenance literature.

(3) Use any special equipment recommended by the manufacturer, or an equivalent to that equipment, in a manner acceptable to the Administrator. This provision is more directly applicable to maintenance than preventive maintenance, but owners and pilots should be aware of it.

NOTE: Equivalent equipment must be FAA-approved.

(4) Perform work in such a manner, and use materials of such quality, that the item worked on is at least equal to its original condition upon completion of the work. Exercise caution because some functions which appear to be simple tasks may, in fact, be quite complicated. Owners/operators should ensure that the individual performing the preventive maintenance understands the manufacturer's instructions, and the function is within the individual's capability. The function must be within the definition of preventive maintenance, and listed in part 43, appendix A, paragraph (c).

e. Recording Preventive Maintenance. As required by § 43.9, preventive maintenance must be recorded by entering the following information into the maintenance record of the item worked on:

(1) "A description (or reference to data acceptable to the Administrator) of the work performed" (§ 43.9(a)(1)). The description should indicate what was done and how it was done. This is normally quite simple for preventive maintenance; however, if the description is extensive, it is acceptable to reference documents containing that description. These may be manufacturer's manuals, ACs, or other documents or references containing data acceptable to the Administrator. If documents other than types commonly used are referenced, the document should be included in the maintenance record.

(2) "The date of completion of the work performed" (43.9(a)(2)). This is self explanatory and is the date on which the entry is made.

(3) If the work has been performed satisfactorily, "...the signature, certificate number, and kind of certificate held by the person approving the work" (§ 43.9(a)(4)). When preventive maintenance is performed as authorized in § 43.3(g), (h), and (i), the certificate may be indicated in a manner which would be clear to the reader (e.g., PP, CP, or ATP might be used to indicate private, commercial, or airline transport pilot, respectively). The certificate number is that number displayed on the certificate being exercised. Affixing a signature to the entry, which describes the work accomplished, constitutes approval for return to service.

NOTE: Section 43.9(a)(3) is not applicable when preventive maintenance is performed by the holder of a pilot's certificate because owners/pilots are not authorized to approve work accomplished by others. The only person who

can sign the approval for return to service is the holder of the pilot's certificate who is performing the preventive maintenance.

4. CONTACT. For additional information please contact the General Aviation and Avionics Branch, AFS-350, at (202) 267-3546.

5. AVAILABILITY. You may obtain a copy of this AC online at http://rgl.faa.gov