U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of the Chief Counsel

800 Independence Ave., S.W.
Washington, D.C. 20591

APR 2 2 2011
REGULAR U.S. MAIL

Albert T. MacMillan
[redacted]

Re: Request for Legal Interpretation on the Use of Manufacturers' Publications to Determine Inspection Intervals and Replacement Times

Dear Mr. MacMillan:

This is in response to your undated request for a legal interpretation on the use of manufacturers' publications to determine inspection intervals and replacement times. Apparently you sent your request to the Nashville, Tennessee Flight Standards District Office, which sent it to the FAA's Office of the Regional Counsel in the Southern Region, which, in turn, forwarded it to our office. You submitted six True/False questions, each preceded by quotations from several Federal Aviation Regulations, mostly from Parts 43 and 91, 14 C.F.R. parts 43 and 91, and excerpts from a 1978 Beech Baron 58P aircraft "Pilot's Operating Handbook and FAA Approved Airplane Flight Manual" and from a Beech Baron Maintenance Manual, issued April 1, 1975, and revised June 28, 2002. The general theme of your questions is whether certain intervals and replacement times set forth in those Beech Baron documents are mandatory. As a general proposition, except when specified in an FAA-approved Airworthiness Limitations Section or in an Airworthiness Directive, they are not.

Based on the examples you included and the specific questions you asked, we assume your inquiry pertains to small piston-powered airplanes operated under 14 C.F.R. part 91 that are either not used for compensation or hire, and therefore governed by the inspection requirements found in § 91.409(a)—(annual inspections in accordance with part 43), or are used for compensation or hire, and therefore governed by the inspection requirements found in § 91.409(b)—(100-hour and annual inspections in accordance with part 43). Some regulatory background may be useful to you in understanding our responses.

The FAA's basic maintenance performance rule is found in § 43.13. Section 43.13(a) provides that each person performing maintenance "shall use the current manufacturer's maintenance manual or Instructions for Continued Airworthiness [ICA], ... or *other methods, techniques, and practices acceptable to the Administrator* . . . ." (Emphasis added.) And, § 43.13(b) provides, in essence, that the person performing the maintenance must do the work "in such a manner and use materials of such a quality, that the condition

of the aircraft . . . worked on will be at least equal to its original or properly altered condition (with regard to aerodynamic function, structural strength, resistance to vibration and deterioration, and other qualities affecting airworthiness." In addition, major repairs and major alterations must be done in accordance with technical data approved by the FAA. *See* §§ 65.95(a)(1), 121.379(b), and 145.201(c).

It is clear from the text of § 43.13(a) that a maintenance provider should follow ("use") the manufacturer's maintenance manual (if one exists) or ICA (if they exist)[1]. Though the regulation provides that the person performing the maintenance "shall" use the maintenance manual, an alternative is provided in the same sentence, *i.e.*, as noted in italics above, by virtue of the "or," the person may use "*other methods, techniques, and practices acceptable to the Administrator . . . .*" (Emphasis added.) The key here is that if other methods, techniques, and practices are used, they must be *acceptable* to the FAA. The maintenance provider is not free to ignore the manufacturer's manual and either do nothing or perform the maintenance in such a manner that would not be acceptable. Further, as required by § 43.13(b), that person must do the work such that, at its completion, the product is at least equal to its original or properly altered condition with respect to the specified airworthiness qualities. If a maintenance provider performed maintenance on a product and deviated from the methods, techniques, and practices in the applicable maintenance manual, in order for the FAA to sustain a violation of § 43.13(a), the agency would have to show how the method, technique, or practice used was *unacceptable.*

These and the other regulations you cited in your request were adopted through notice and comment procedures required by the Administrative Procedure Act (APA) (5 U.S.C. § 553), and the obligations incumbent on the regulated entities (*e.g.*, aircraft owners and operators, maintenance providers, etc.) were determined at the time of the rules' adoption and do not change over time, unless amended by another notice and comment rulemaking process. As a general proposition, manufacturer's maintenance manuals, service bulletins, and inspection programs (with limited exceptions not pertinent here) are not FAA-approved and are not mandatory; nor are subsequently issued changes to maintenance manuals or inspection programs. If they were, and compliance were required, this would be tantamount to private entities issuing "rules" of general applicability without meeting the notice and comment requirements of the APA, and the public would not have had an opportunity to comment on these future program and airworthiness limitations changes.

An interpretation of the regulations that would allow manufacturers unilaterally to mandate inspection intervals and replacement times that would have future effect on owners of their products would not be legally correct. This would run afoul of the APA. It would mean that our regulations effectively authorize manufacturers to issue "substantive rules," as that term is used in the APA, *i.e.*, it would enable them to impose legal requirements on the public. This would be objectionable for at least

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[1] The requirement for a manufacturer (actually the holder of the design approval (type certificate or supplemental type certificate (STC)) to furnish a set of ICA to airplane owners came into being in 1980 (Amend. No. 21-51 (45 FR 60170, September 11, 1980), and applied to those products for which application for the type certificate or STC was made after January 28, 1981.

two reasons. First, and most significantly, the FAA does not have authority to delegate its rulemaking authority to manufacturers. Second, "substantive rules" can be adopted only in accordance with the notice-and-comment procedures of the APA, which does not apply to manufacturers.

You enclosed excerpts from the Beech Baron 58P "Pilot's Operating Handbook and FAA Approved Airplane Flight Manual," issued December 1978. Raytheon Aircraft revised the document in July 1999, but any revisions are not material to this response. The document is a combined Pilot's Operating Handbook (POH) and Airplane Flight Manual, part of which is in fact FAA-approved and mandatory. Of relevance here, the cover page of the document states, in pertinent part: "This handbook includes the material required to be furnished to the pilot by FAR 23." FAR 23 refers to 14 C.F.R. part 23, the regulations containing the airworthiness standards for small airplanes.

The FAA's requirements for a manufacturer to furnish an Airplane Flight Manual (AFM) are found in subpart G to part 23 ("Operating Limitations and Information"). Specifically, both in 1978 and now, § 23.1581(a) requires the manufacturer to furnish the AFM, and it mandates that the information required by §§ 23.1583 through 23.1589 be included. In 1978, § 23.1581(b) required that that information be approved, segregated, identified, and clearly distinguished from each unapproved part of that AFM. Sections 23.1583 through 23.1589 cover, respectively, "Operating limitations," "Operating procedures," "Performance limitations," and "Loading information." Section II (2) of your Pilot's Operating Handbook and FAA Approved Airplane Flight Manual, captioned "Limitations," is the section that complies with these regulations. That section **is** FAA-approved and contains mandatory operating-type limitations—it does not contain mandatory maintenance-related airworthiness limitations. The excerpts you included were from Section VIII (8), captioned "Handling, Servicing, and Maintenance." That section is not labeled FAA-approved, as is Section II; accordingly, while it may contain acceptable maintenance information, it is not mandatory from a regulatory perspective.

Because your inquiry pertained to inspection intervals and replacement times, we direct your attention to § 43.16 which, in pertinent part, provides:

> Each person performing an inspection or other maintenance specified in an Airworthiness Limitations section of a manufacturer's maintenance manual or Instructions for Continued Airworthiness shall perform the inspection or other maintenance in accordance with that section.

Section 23.1529 sets forth the requirement that the Instructions for Continued Airworthiness (ICA) be developed in accordance with Appendix G to part 23. As with the requirements for FAA-approved operating limitations in an AFM, Appendix G requires that the Airworthiness Limitations section be segregated and clearly distinguishable from the rest of the document. The section must set forth each mandatory replacement time, structural inspection interval, and related structural inspection procedure. It must contain a separate statement in a prominent location that reads: "The Airworthiness Limitation section is FAA approved and specifies

maintenance required under §§ 43.16 and 91.403 . . . unless an alternative program has been FAA approved." The Beech Baron 58P POH/AFM you referenced does not contain an Airworthiness Limitations section—generally the ICA (if they exist)[2] are found in the maintenance manual or a separate ICA document. The Beech Baron Maintenance Manual does not contain an FAA-approved Airworthiness Limitations section.

Considering the above background information, along with the specific regulations you cited, we will answer your six questions. As a general matter, at a minimum you must follow the inspection requirements set forth in the regulations. Specifically, you may not operate the aircraft unless it is in an airworthy condition, and you must inspect and maintain the aircraft in accordance with the applicable regulations you cited.

Your Question No. 1:

> Aircraft POH/AFM are approved by the FAA. So any inspection, overhaul and replacement times are therefore FAA approved. True/False?

Answer:

As discussed above, the premise of your question is not entirely correct, as only the "Limitations" section of your POH/AFM is FAA-approved and mandatory. That section does not contain an Airworthiness Limitations section, which would contain those types of intervals. The information contained in Section VIII (8) of your POH/AFM "Handling, Servicing and Maintenance," unless found to be unsafe and changed by an FAA Airworthiness Directive (AD) or other notice and comment rulemaking, would be acceptable.

Your Question No. 2:

> You cite a number of paragraphs from the POH/AFM, followed by a listing captioned: **Airplane Inspection Periods**
>
> 1. FAA-required 100 hour and/or Annual Inspections.
> 2. Beechcraft Recommended Inspection guide.
> 3. Continuing Care Inspection guide.
> 4. See "Recommended Servicing Schedule" and "Overhaul and Replacement Guide" for further inspection schedules.
> 5. Check the wing bolts for proper torque at the first 100-hour inspection and at the first 100-hour inspection after each reinstallation of the wing attach bolts.

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[2] As noted in footnote 1, above, the requirement for ICAs did not come into being until 1980, and applied to aircraft with design approvals for which application was made after January 28, 1981— so they were not required for the Beech Baron.

So all of the above listed requirements are mandatory by the manufacturer and approved by the FAA since it is in the POH. True/False?

Answer:

As discussed above, the premise of your question is not entirely correct, as only the "Limitations" section of your POH/AFM is FAA-approved and mandatory. That section does not contain an Airworthiness Limitations section, which would contain those types of intervals. The information contained in Section VIII (8) of your POH/AFM "Handling, Servicing and Maintenance," unless found to be unsafe and changed by an FAA Airworthiness Directive (AD) or other notice and comment rulemaking, would be acceptable. That any recommendation by the manufacturer might be considered mandatory by the manufacturer, does not, without more, make the recommendation mandatory from an FAA regulatory perspective.

Your Question No. 3:

You quote from the Beech Baron Maintenance Manual (Section 5-10-00 at p. 201): "The first overhaul or replacement must be performed not later than the recommended period. The condition of the item at the end of the first period can be used as a criterion for determining subsequent periods applicable to the individual airplane or fleet operation, provided the operator has an approved monitoring system." You then ask: If you have "an approved monitoring system" you can extend the recommended periods, if you do not have "an approved monitoring system" then you have to comply with the recommended periods." True/False?

Answer:

Your questions 2 and 4 imply that the aircraft is subject either to annual inspections required by § 91.409(a) or 100-hour and annual inspections required by § 91.409(b). However, this question seems to implicate the Continuing Analysis and Surveillance Systems required by § 135.431 applicable to certificate holders operating aircraft under part 135. Assuming this is the case, and the operator has an FAA-approved monitoring system designed to determine whether recommended overhaul and replacement times can be extended based on the service history of the component at issue, the operator could extend those times in accordance with the approved system. Again, the intervals recommended in the maintenance manual are not *per se* mandatory—the maintenance provider may develop an alternative that is acceptable to the FAA.

Your Question No.4:

> You quote from the Beech Baron Maintenance Manual (Section 5-20-00 at p. 202): "A complete inspection of the airplane must be accomplished within each 12-month period for compliance with the Title 14 Code of Federal Regulations. The time periods for inspections stated in this inspection guide should NEVER be exceeded by more than 10 hours, and then only if the additional time is required to reach a place where the inspection can be satisfactorily accomplished." You then ask: All time periods listed in the guide should NEVER be exceeded. Per sec. 43.13. . . . True/False?

Answer:

The mandatory inspection requirements are found in § 91.409. Paragraph (a) of the section contains the *annual* inspection requirement, and paragraph (b) applies when the aircraft is used for compensation or hire and contains a requirement for a *100-hour inspection.* This is made clear in the rest of the paragraph from the Beech manual you cited but did not include. To that extent, it appears that the recommendation in the "guide" is consistent with § 91.409(b), which sets forth the inspection periods that must be followed, and which contains the 10-hour "grace" period.

Your Question No. 5:

> You quote from the Beech Baron Maintenance Manual (Section 5-20-00 at p. 208, and Section 57-00-00 at p. 211-212) captioned: Wing Bolt, Nut, and Fitting Inspection, which sets forth inspection and replacement times. You then ask: So wing bolts and nuts have to be inspected every five years and replaced every fifteen years, the times referenced in the manual. True/False?

Answer:

While following these intervals set forth in the Beech Baron Maintenance Manual is an acceptable means of maintaining the aircraft under § 43.13(a), the maintainer may use another method that is acceptable to the FAA. The aircraft *inspection* requirement is found in § 91.409(a), which requires an annual inspection be performed in accordance with part 43. Section 43.15(c) requires that the inspection be done in accordance with a checklist that includes the scope and detail of the items contained in appendix D to part 43. This list does not contain the specific inspection and replacement criteria set forth in the Beech Baron Maintenance Manual referenced above.

Your Question No. 6:

> We must maintain aircraft & components in an airworthy condition

using Manufacturers Maintenance Manual, Instructions for Continued Airworthiness or FAA approved data. True/False?

Answer:

True—with the caveat that other acceptable methods, techniques, and practices may be used to maintain an aircraft in an airworthy condition as well. However, as noted above, the Airworthiness Limitations section of ICA is FAA-approved and must be followed. This requirement is in § 43.16, which does include an exception that the specified inspection or other maintenance may be performed in accordance with operations specifications approved by the FAA under parts 121 and 135, or an inspection program approved under § 91.409(e). Also, as noted above, major repairs and major alterations must be done in accordance with FAA-approved technical data.

This response was prepared by Edmund Averman, an Attorney in the Regulations Division in the Office of the Chief Counsel, and coordinated with the Aircraft Maintenance Division (AFS-300) in the Office of Flight Standards. If you have additional questions regarding this matter, please contact us at your convenience at 202) 267-3073.

Sincerely,

Gary A. Michel

for Rebecca MacPherson
Assistant Chief Counsel for Regulations
Office of the Chief Counsel