



121 North Henry Street  
Alexandria, VA 22314-2903  
T: 703 739 9543 F: 703 739 9488  
arsa@arsa.org www.arsa.org

July 16, 2009

Sent Via: E-mail, Read Receipt Requested: James.A.Cahill@faa.gov

Original sent by Certified Mail  
Return Receipt Requested

Receipt No. 7003 3110 0001 5995 3182

James A. Cahill  
Aviation Safety Inspector  
Regional Staff Specialist  
Federal Aviation Administration  
Southwest Region  
Flight Standards Division  
Technical Support Branch, General Aviation—ASW 230  
2601 Meacham Blvd.  
Ft. Worth, TX 76137-4298

RE: Use of Component Maintenance Manuals (CMMs) to Perform Overhauls

Dear Mr. Cahill

As you may know, the Aeronautical Repair Station Association (ARSA) represents the certificated repair station community in matters of regulatory compliance that may have a national or international impact. It has come to ARSA's attention that there is an issue within the Southwest Region with the use of the term "overhaul".

A member has reported that its FAA inspector queried you as follows:

I have a bit of a loaded question.

[A repair station] has asked the question...

Can [a repair station] use information contained in CMMs to "OVERHAUL" parts for large aircraft (Airbus, Boeing, etc.)?

They claim that some of the aircraft manufacturers are no longer publishing "OVERHAUL" manuals and are now publishing CMMs instead.

I have been under the impression that one must have an "OVERHAUL" procedure to overhaul a part. Some, not all CMMs have disassembly, cleaning, assembly, and testing instructions, but they don't go to the extent as to state that the tests are applicable for an "OVERHAUL".

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I don't believe that one can just make a blanket statement to call a part "OVERHAULED IN ACCORDANCE WITH A CMM" when the procedures in the CMM do not state that those instructions are for "OVERHAUL".

You replied:

You are correct with what you believe. A CMM is just what the name implies - Component Maintenance Manual - emphasis on the Maintenance. In order to overhaul a part that has no published overhaul manual they will need to develop a set of specs, same as process specs, prepare an overhaul manual, have references to what standard they are overhauling to, and get it approved. We've done this before but I can't remember the entire process.

When they submit it our ACO people will be the ones to approve it.

The Association respectfully disagrees with that position. Whether the manufacturer of an article uses "overhaul" in its manual or instructions does not dictate the use of the term in a maintenance record. The regulations and the Administrator's interpretation set forth the requirements for the proper use of that term, not the manufacturer. Your response did not cite or reference any regulations; however, your emphasis on the term maintenance is an excellent place to start.

Maintenance is defined in 14 CFR<sup>1</sup> section 1.1 as meaning "inspection, **overhaul**, repair, preservation, and the replacement of parts" (emphasis added).<sup>2</sup> All maintenance must be done in accordance with the performance standards set forth in section 43.13. Section 43.13(a) indicates that the manufacturer's **maintenance** manual or instructions for continued airworthiness contain acceptable methods, techniques and practices for accomplishing work.

In order to use the term "overhaul", a maintenance provider must perform an extensive scope of work. That is, the repair station must disassemble, clean, inspect, repair as necessary, reassemble and test the article in accordance with procedures developed by the manufacturer.<sup>3</sup> The FAA has refined the term in the attached legal opinion that states the disassembly need not be to the point where the article (or any of its component parts) is, in essence, destroyed.

The regulations do not limit the use of that term to manufacturer instructions that contain the word "overhaul"; rather they dictate the scope of work necessary to ensure that all tasks are accomplished (or determined unnecessary). Therefore, a repair station may

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<sup>1</sup> All reference will be to 14 Code of Federal Regulations (CFR) unless otherwise noted.

<sup>2</sup> The term specifically excludes preventive maintenance, which is defined in that same section with a list of items set forth in part 43, App. A(c).

<sup>3</sup> See, section 43.2(a).

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use the term "overhaul" provided the necessary work scope has been accomplished in accordance with the section 43.13(a) methods, techniques and practices. In other words, an "overhaul" manual is not required to perform the work scope necessary to use that term in a maintenance record.

We respectfully request that the Southwest Region reassess its position; according to the regulations, the term "overhaul" can be used to describe work performed in a maintenance record provided the work scope required by section 43.2(a) has been accomplished (or determined unnecessary).

We look forward to your response; if you wish to discuss the issue, please do not hesitate to contact me.

Your Servant,



Sarah MacLeod

cc: John Wensel  
Manager  
Albuquerque Flight Standards District Office  
James L. Malarsie  
Assistant Manager  
L. Bruce Jeffcoat  
Airworthiness Safety Inspector  
William M. Bossert, Assistant Manager  
Central Region Flight Standards Division  
Ross Elmore, Manager  
Technical Standards & Evaluation Branch  
Wayne P. Fry  
Manager  
Southwest Region Flights Standards Division  
Technical Support Branch, General Aviation  
Dan Bachelder  
Deputy Assistant Manager  
Aircraft Maintenance Division, AFS-301B

John.Wensel@faa.gov

James.L.Malarsie@faa.gov

Lonnie.B.Jeffcoat@faa.gov

William.M.Bossert@faa.gov

Ross.Elmore@faa.gov

Wayne.P.Fry@faa.gov

Dan.Bachelder@faa.gov

ATTACHMENT  
LEGAL OPINION 1991-62  
November 26, 1991

**Interpretation 1991-62**

**FAD Digest of Interpretations:**

**FAR 43.2**

Where disassembly would destroy it, a part, component, or subassembly of a larger assembly or product may be deemed "overhauled" within the meaning of FAR § 43.2 if it can be shown to be airworthy by inspection, examination, or tests that do not require disassembly beyond its normal state.

**FAR 21.331(a)(1); FAR 43.2**

Any part that is deemed "overhauled" within the meaning of FAR § 43.2 also meets the intent of the term "newly overhauled" as that term is used in § 21.331(a)(1).

**Source of Interpretation:** Letter to J. E. Murdock III from Donald P. Byrne, Assistant Chief Counsel, Regulations and Enforcement Division, dated November 26, 1991.

The Chief Counsel has asked me to respond to your letter of June 18, 1991, concerning the Federal Aviation Administration's interpretation of the word "overhaul" as it is used in the Federal Aviation Regulations (FAR), generally, and specifically at FAR section 43.2(a), 14 C.F.R. § 43.2(a). We will also address the interpretation of the word "overhaul" contained in the March 25, 1991, letter to the Pratt & Whitney Overhaul & Repair Center from our Flight Standards District Office in Windsor Locks, Connecticut.

As your letter noted, FAR section 43.2(a), on "Records of overhaul and rebuilding," presently reads, in pertinent part:

(a) No person may describe in any required maintenance entry or form an aircraft, airframe, aircraft engine, propeller, appliance, or component part as being overhauled unless—

(1) Using methods, techniques, and practices acceptable to the Administrator, it has been disassembled, cleaned, inspected, repaired as necessary, and reassembled; and

(2) It has been tested in accordance with approved standards and technical data, or in accordance with current standards and technical data acceptable to the Administrator . . . .

Your concern was directed to the interpretation of the term *overhaul* as it applies to items or parts that are incapable of nondestructive disassembly. You noted, as examples, parts such as spacers, blades, vanes, cases, and shafts, which typically undergo cleaning, inspecting, repairing, and testing during their overhaul. Such parts also typically undergo those processes during the overhaul of larger products of which they are components.

Your letter also points out that the Preamble to the rule (47 FR 41076, Sept. 16, 1982) included a paragraph that provides guidance useful in interpreting the section. That paragraph stated:

## FEDERAL AVIATION DECISIONS

Several commenters state the term "completely disassembled" is inappropriate because in numerous instances "complete" disassembly would damage the product beyond further service. The word "complete" is deleted. However, it is intended that disassembly should be to the extent required to make a complete determination of conformity with the product's original qualities.

We agree that the quoted language from the Preamble aids in interpreting the regulation. Both logic and the Preamble's language compel the conclusion that complete disassembly and reassembly of certain parts are not necessary if, in their normal state, they can be examined to determine with certainty their conformity with their original qualities. Indeed, while you observed that one could theoretically further disassemble such parts (e.g., by cutting the material), such analysis would actually damage the part. A part need not be disassembled to this extent to be eligible for a determination that it has been overhauled if it has been subjected to inspections, examinations, or tests capable of accurately determining its airworthiness.

When a part, component, or subassembly of a product has been disassembled (to the extent contemplated by the above Preamble language), cleaned, inspected, repaired, and tested in accordance with standards or data approved by or acceptable to the Administrator, it may be deemed overhauled within the context of FAR section 43.2. Consequently, a part, component, or subassembly of that larger assembly or product should also be deemed overhauled if it can be shown to be airworthy by inspection, examination, or tests that do not require disassembly beyond its normal state. Indeed, such disassembly would, in effect, destroy the part. Accordingly, it is our opinion that the interpretation of the word "overhaul" advanced by the Windsor Locks Flight Standards District Office in its March 25, 1991, letter is too narrow in the context of the above-mentioned circumstances.

It is also our opinion that any part that is deemed overhauled within the meaning of FAR section 43.2, also meets the intent of the term "newly overhauled" as that term is used in FAR section 21.331(a)(1), with respect to the issuance of airworthiness approval tags for Class II products.

I hope this response has addressed your concerns and that it is helpful to you.

### FAD Digest of Inter

**FAR 121.503(a);**  
FAR § 121.503(a) schedules the flight period, while § 121.503(b) sets the flight crew to period; these flight by virtue of § 121.503(b).

**FAR 121.503(b);**  
The 16-hour rest period of § 121.505(a) rests 24 consecutive hours the length of rest time limitations of § 121.511(a).

**FAR 121.503(b)**  
A 10-hour rest period of a trip satisfies the flight crew component 16-hour rest period carrier.

**Source of Interpretation**  
Assistant ( )  
Decemb

This is in response to your question regarding Operations Law Administration ( ) Regulations (FAR ). We apologize for the delay set forth below and in the FAR.

Your question states:

"I request an interpretation of FAR 121.503(a) and (b), and 121.505(a) regarding the rest period of a crewmember on an air carrier.

Can a supplemental flight engineer