



repair or alteration or component overhaul or replacement? Or what if an aspiring aircraft mechanic wants to work as an apprentice at an aircraft maintenance facility to gain the 30 months of practical experience required to qualify to take the knowledge and practical tests to become an A&P? FAR 43.3 addresses that, too. Specifically, paragraph (d) says:

A person working under the supervision of a holder of a mechanic or repairman certificate may perform the maintenance, preventive maintenance, and alterations that his supervisor is authorized to perform, if the supervisor personally observes the work being done to the extent necessary to ensure that it is being done properly and if the supervisor is readily available, in person, for consultation. However, this paragraph does not authorize the performance of any inspection required by Part 91 or Part 125 of this chapter or any inspection performed after a major repair or alteration.

This means that anyone may perform maintenance on a certificated aircraft—with the exception of required inspections—so long as the work is supervised by an A&P. For the work to be considered supervised, two commonsense conditions must be met:

The supervisor must personally observe the work to the extent necessary to ensure that it is being done properly; and the supervisor must be readily available, in person, for consultation.

The first of these conditions gives the supervising mechanic broad latitude to determine exactly how much supervision is necessary to ensure the work is being done properly. For relatively simple tasks, “call me when you’re done so I can inspect your work” is appropriate. In other cases, “call me when you get to [a critical phase of the task] so I can watch and help if necessary” is needed.

Of course, the supervisor has a powerful incentive to provide the appropriate amount of supervision to ensure the work is done properly, since it is the supervisor who will be signing the maintenance record attesting that the work was performed satisfactorily and approving the aircraft for return to service. If the work is done improperly and something bad

SAVVY MAINTENANCE / OPINION

Supervised maintenance

Why are FAA lawyers trying to kill owner-assisted annuals and apprenticing?

BY MIKE BUSCH

WHO IS ALLOWED to perform maintenance on a certificated aircraft? The FAA rule, which answers that question, is FAR 43.3—Persons authorized to perform maintenance, preventive maintenance, rebuilding, and alterations. This rule authorizes repair stations, A&P mechanics, repairmen working for a repair station, air carriers, Part

135 operators, and aircraft manufacturers to perform maintenance. The rule also allows pilot-rated aircraft owners to perform preventive maintenance on an aircraft that they own.

What if someone who is not an A&P—say, a maintenance-involved aircraft owner—wants to do something that goes beyond preventive maintenance—say a

happens, the supervisor will be held responsible, both in terms of possible FAA certificate action and possible civil liability for negligence.

The second condition ensures the supervisor will be available to answer any questions the uncertificated mechanic might have and to help out if the uncertificated mechanic gets stuck at any point while doing the work. Often a phone call is all that's necessary, but the rule says the mechanic must be "readily available, in person" when necessary.

This rule, which hasn't changed for at least 60 years, seems straightforward and eminently reasonable, doesn't it? Most A&Ps have been in the position of supervising and signing off work performed by non-A&Ps, and most of us had a clear understanding of what 43.3(d) requires. Or so we thought.

The Moss Interpretation

On July 8, 2022, Jonathan Moss, manager of the Little Rock Flight Standards District Office, sent a request to the Regulation Law Division at FAA headquarters (AGC-200) for a legal interpretation of 43.3(d). His question was a simple one: Does the requirement for the supervisor to be "readily available, in person, for consultation" require the supervisor to be physically present at the work site, or can the consultation be done remotely, using Zoom, FaceTime, live-feed TV, digital photographs, downloadable video, or other electronic means. In short, Moss asked the FAA lawyers what "in person" means in the twenty-first century.

I'm not sure why Moss asked this question, but it took the lawyers at FAA headquarters 26 months to answer it. On September 3, 2024, AGC-200 sent a memorandum of interpretation to Moss that stated unequivocally that the phrase "in person" explicitly requires physical presence, and that "virtual presence, through a live video feed or other technological means, cannot replace the physical presence of a supervising mechanic."

I think most A&Ps would agree that when an apprentice mechanic asks his supervising A&P for help with something, the supervisor's physical presence is sometimes necessary. Other times, a phone call or text message may be all that's needed.



Because some apprentice requests for consultation require a supervisor's physical presence, the requirement of 43.3(d) that the supervisor be readily available to show up in person—meaning physically present at the work site—seems pretty reasonable.

If the Moss Interpretation had stopped there, we'd all be fine with it. But unfortunately, it didn't stop there. Indeed, it went on to say some things that every A&P I've discussed this with believed to be unreasonable and unacceptable. For one thing, the Moss Interpretation memo concludes with: "For these reasons, the Office of Chief Counsel finds that 14 CFR 43.3(d) does not allow for remote supervision of maintenance."

Although sometimes a supervisor's physical presence is necessary and appropriate, most of the time it isn't. Often the best way to determine if the work is being done properly is by using high-resolution photos, borescope images, videos, and so forth. Sometimes, flashlight and mirror might be best. The supervising mechanic should have the discretion to determine what he needs to be satisfied that the work is done properly, and to what degree his physical presence is needed. The Moss Interpretation's blanket ban on remote supervision seems to take that discretion away.

In today's world where robotic surgery is performed remotely, war is being waged by remotely piloted vehicles, and the FAA is increasingly exercising its oversight responsibilities remotely, it seems

unnecessarily conservative and regressive for the FAA to be saying that the only way an A&P can supervise the work of an apprentice is to be physically present. It's one thing for the supervisor to be "readily available" in case physical presence is needed (and sometimes it is) but quite another thing to state that the supervisor's physical presence is always required.

It gets much worse

Unfortunately, the Moss Interpretation memorandum didn't stop there. In the middle of page 2, the memo states:

The phrase "readily available, in person, for consultation" contemplates a physical, hands-on approach to supervision. The certificated mechanic must be available, not just to answer questions, but to notice mistakes and take over if necessary.

Yikes! Nothing in the plain common-sense language of 43.3(d) suggests such an omnipresent and interventionist approach to supervision. Yet these two sentences in the middle of the Moss Interpretation memo appear to completely eviscerate the supervisor's discretion to determine the extent of supervision necessary to ensure the work is performed properly. They seem to require the supervisor to be joined at the hip to the person being supervised, looking over his shoulder, breathing down his neck, and spring-loaded to take over at the first sign of a misstep.

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The FAA seems to be saying it is no longer sufficient for the supervisor to ensure that the work has been done properly and that any mistakes are corrected before the aircraft is approved for return to service. Now, apparently, the supervisor is required to be continually present to watch the work like a hawk and intervene if necessary to make sure no mistakes are made.

I cannot believe this is what the original authors of 43.3(d) intended when they wrote the rule 60 years ago. The rule they wrote has always been understood to grant the supervisor discretion to provide supervision “to the extent necessary to ensure that it is being done properly,” and that almost never necessitates continuous surveillance—much less continuous physical presence—of the work from start to finish.

Consider the task of changing a cylinder on a reciprocating aircraft engine. This is one of the most critical and invasive tasks that mechanics are called upon to do, the A&P equivalent of open-heart surgery. Yet even a task as risky as this doesn't warrant full-time surveillance. If I were supervising a cylinder change, I might want to be physically present at four points in the process: (1) removal of the piston pin, since they can be pretty stubborn; (2) installation of the rings on the piston, to ensure that the stack up is correct and the compression ring end gaps are within specs; (3) tightening of the through bolts and hold-down studs, where proper torque, thread lubrication, and various other factors are absolutely critical; and (4) final inspection after all the work is done, to ensure that the cooling baffles are correctly installed, the spark plug leads are properly secured and protected from chafing, and so on. If the cylinder replacement requires four hours of work, the critical phases that require close supervision might total 30 minutes, tops.

Now, if this same apprentice mechanic had performed cylinder replacement under my supervision a dozen times before and I were convinced he knew what he was doing, the amount of on-site supervision needed to ensure the work was being done properly would be significantly less. Yet the Moss Interpretation seems to say I'd need to be watching the apprentice mechanic's work for the entire four hours. That's absurd.

Consequences

Interestingly, not everyone I've spoken with disagrees with the Moss Interpretation. I've heard from some aircraft owners who say, “I don't want anyone but licensed A&Ps swinging wrenches on my airplane.” I've also heard from some FSDO inspectors who seemingly can't wait to bring enforcement actions against mechanics who fail to conform with this new notion of what supervision means. But I'm convinced that if the Moss Interpretation stands, the consequences will be devastating to aircraft owners and maintainers alike. Here's why.

Most aircraft maintenance facilities—whether GA or airline—employ uncertificated mechanic-apprentices who work under supervision to fulfill the 30-month practical experience requirement to qualify for the A&P certificate. If the Moss Interpretation is permitted to stand, then each such mechanic-apprentice would require full-time supervision by an A&P who would be required to continuously watch every phase of the trainee's work and be prepared to intervene at any moment. The supervisor would be precluded from using any electronic means to perform this surveillance, so would literally have to be physically looking over the apprentice's shoulder. This kind of continuous in-person surveillance would be economically unsustainable. Thus, the Moss Interpretation would make it infeasible for shops to employ mechanic-apprentices seeking to become eligible to earn an A&P mechanic certificate.

Similarly, GA shops could no longer supervise owner-assisted annuals or other owner-performed maintenance, because the full-time on-site surveillance required by the Moss Interpretation would effectively preclude the supervisor from doing anything else while supervising the aircraft owner. There could be no more “call me when you're done so I can inspect your work.” The Moss Interpretation would make owner-performed maintenance under supervision a thing of the past.

Given the present acute shortage of A&Ps throughout the industry but



Replacing a cylinder might take a mechanic-trainee four hours to accomplish, but it certainly shouldn't require four hours of hands-on supervision by an A&P, especially if the trainee has done it a dozen times before.

particularly in general aviation, it would be particularly unfortunate to put an end to the ability of shops to employ mechanic-trainees working to become A&Ps and to put an end to owner-assisted annuals and other owner-performed maintenance performed under A&P supervision.

Pushing back on Moss

In September, I wrote an eight-page letter formally requesting expeditious reconsideration of the Moss Interpretation by AGC-200 and issuance of a superseding revised interpretation of FAR 43.3(d) that restores a supervisor's discretion to determine the extent of supervision necessary to ensure that the work under supervision is being done properly and rescinds the total ban on using electronic means to satisfy the requirement to "personally observe" the work performed. In short, this letter asks AGC-200 to restore the plain-language meaning of 43.3(d) as it has been almost universally understood for the past 60 years. My letter was co-signed by 10 other A&P/IAs who were shop owners, directors of maintenance, accountable managers, and instructors at Part 147 schools.

On October 10, a second letter requesting reconsideration was sent to AGC-200, signed by a remarkable consortium of

industry alphabet groups, including AOPA, EAA, GAMA, NBAA, ARSA, AEA, NATA, ASA, CAF, CAA, AIA, ATEC, IATA, MRPA, NACA, and RAA.

Happily, it looks like the FAA may be taking our concern seriously. On October 15, 2024, as this column was going to press, I received a letter from Laura Megan-Posch, FAA assistant chief counsel for rulemaking—who signed the September 3 Moss interpretation memorandum—stating that the FAA was placing the Moss Interpretation "on hold" until further notice so that the FAA could consider and address the industry's concerns. This is certainly encouraging, although we will be watching closely for any follow-up the FAA issues regarding 43.3(d). ■

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