ON CHECKING ONE'S OWN WORK

BY

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Good judgment comes from experience, and a lot of that comes from bad judgment.

One of the two Designated Examiner issues I'd like to address is the practice of an examiner checking his own work. For reasons I'm going to articulate, I think this is a very bad idea.

All designated examiners have to be current flight instructors. When I left the examining profession, the FAA's policy was that a designated examiner could test a student he had trained, provided that another instructor had given that student at least three hours of dual instruction and then had recommended that individual for the test. I'd like to share a personal experience that led me to disagree with that policy.

I had been instructing a gentleman for his instrument rating. We had been through the entire syllabus and he had done well, except that I thought he was a little weak on his ADF technique.

In those days the applicant was required to demonstrate at least one VOR, one ILS, and one NDB approach, among some other skills, to qualify as a certified meter reader. In teaching the use of the ADF, I used a method that involved mentally superimposing the ADF and the heading indicator, making an

imaginary RMI out of those two instruments. The common teaching technique of the day was to have the student add the magnetic heading to the relative bearing indicated on the ADF. This would give him his bearing to the station. The reciprocal of that number, of course, would be the bearing from the station. Any time you got a number greater than 365, you'd subtract 365 from the answer. Get it? Neither did most of my students.

Instead of trying to add and subtract big numbers in my head, I figured that when the hair got short, I'd be tracking along some line that would put the ADF needle off the nose or the tail only as much as the required wind correction angle. So I'd take the heading I was holding and add to it or subtract from it, the angle between the head of the ADF needle and the 0° or 180° position on the direction finder. If the head of the ADF needle were to the right of the nose or to the left of the tail, I would add the angle to the heading to determine my ground track. Otherwise, I would subtract this angle from my heading, to get the magnetic course I was tracking.

Unfortunately, this method did not seem to work for the average student. There's a lot of negative transfer between what a pilot has learned using the VOR and what he is trying to accomplish with the ADF. I was never able to get this method across to most of my students. I still can't, as a matter of fact. (*God bless the GPS!)*

So I got this student of mine about where I thought he ought to be, and handed him off to Michael, a fellow instructor and good friend. I told Mike to work him over with an emphasis on his ADF skills, recommend him for the ride, and give him

back to me after a minimum of three hours of instruction. Michael agreed to help me out.

Here's what happened when my student came up for his test. We navigated successfully to the Moissant outer compass locator, the facility serving the NDB approach to runway 10. He checked his compass, started his timer when the needle swung from nose to tail, and maintained an inbound heading of 100°. Soon he noticed that the head of the ADF needle was swinging over to the right of the tail.

Using perfect VOR logic (center the needle), he turned left to get the needle back to the 180° position. He held this new heading for a little while more, and guess what happened? Right – the needle moved still farther to the right, and he corrected farther to the left to correct.

Approach control finally called and asked what we were doing. I had my student take his hood off. By this time, we were headed northeast, looking at the shoreline of Lake Ponchartrain almost 45° off our desired track.

Then I did something totally inappropriate. I told him to put his hood back down and come around for another try. You don't *ever* do that when you're conducting a practical test. If an applicant screws up, especially if he screws up royally, he doesn't get another shot. As the FAA guy says at the recurrent training sessions, "If he practices enough times, he'll maybe luck out and get one right."

My problem was that I wasn't really in my examiner mode. I was thinking of myself as this guy's instructor, and I *knew* he was a good instrument pilot. A favorable prejudice should have

disqualified me as his examiner. But remember, what set up this unfortunate series of events was that I *was* following the FAA procedure that allowed me to check my own work.

So we swung around and got lined up again, with the same result the second time. He took off his hood and looked at me. "I guess we can't just sweep this under the rug," he said.

Those were words I'll take to my grave. It was probably the smartest thing anyone had said all day. We went back to the pea patch and I wrote him a pink slip, the form you get when you've flunked the test.

You can imagine that my friend Michael was not too thrilled by this chain of events. Neither was I. It was just dumb luck that we had encountered enough crosswind on that approach to expose this man's erroneous technique.

I never found out for sure, but I suspect that he and Michael had shot a bunch of NDB approaches to runway 10 when there was no crosswind. That's very easy. All you do is follow the needle to the outer compass locator, then turn inbound and make sure you descend to the minimum descent altitude inside of three minutes, maintaining runway heading during the entire final approach segment. If there's no wind blowing you off course, there's no deflection of the ADF needle and you break out of the clag looking at the end of the runway, exactly where you're supposed to be.

It really doesn't matter what had transpired between my student and my friend the instructor. The fact is that I almost certified an instrument pilot who had a dangerous misconception about how to fly an ADF approach: a misconception that could

have killed him and maybe a passenger or two, if he had tried that trick with some mountains or tall antennas nearby.

This brings us to the second reason why I do not approve of the policy of letting an examiner check his own work. Let's suppose this pilot had passed his test and then had had an accident. Let's see… Alan Malone was his instructor. His name is all over this guy's logbook. Hey, look at this. Alan Malone is also the guy who gave him his test and issued him an instrument rating! Hummmm. I wonder who bears the responsibility for his substandard training, as well as his inadequate testing, that ultimately led him to crash his nice Cessna into the side of a mountain a mile off the final course of that there ADF approach?

Today I am no longer an examiner. As a flight instructor, I rely on an examiner I trust, a man of great skill and total integrity. He tests all of my students, unless they particularly want to use another examiner. I like it that we can count on this examiner to give a totally unbiased test, strictly according to the Practical Test Standards, and that he will write an honest pink slip if he finds any deficiency in the results of my work, based on the standards of whatever test he is administering.

He and I are friends, and that friendship extends to our professional relationship. We both know there will be no bias during the test, either way. If I can train a student, recommend him for a test, and have him get a pass from this examiner, I can rest easy that neither the client nor I has been cheated out of the fair evaluation the applicant has paid for.

That evaluation should always be done by a disinterested observer, not someone who is in any way invested in the

outcome of the test. To reinforce this opinion, I don't even think it's healthy for an examiner to fly with a prospective applicant prior to a practical test. From time to time, back when I was an examiner, an instructor would request that I perform a "phase check" prior to a practical test, and I would always make it clear that if I performed that function I would disqualify myself as that individual's examiner.

It's been a few years since I signed my name to a temporary certificate, and I have not checked the current policy manual that the designated examiners work from, but if this policy is still in place, I'd encourage them to change it. And if it hasn't changed, I'd urge all designated examiners who still instruct students not to conduct practical tests for applicants they have trained.