

*"I said to hell with it and decided to get an instrument rating."*

# Artificial Horizons

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Instrument flying is a breeze for some pilots, and a terror for others. Some guys pick up the complexity of the ATC system with ease—some also are comfortable with calculus and atomic physics. Others can barely add two and two, and have a rough time getting the many intricacies and nuances of ATC through their heads.

Me, now, I'm a little of both. I can hardly spell calculus. So ATC and pure instrument flying must be reduced to simple terms before I can even figure them out.

For many years I'd decided that I was never going beyond a private certificate, so to hell with all the professionalism. And that worked, for a long time. Only trouble was, I regularly got stranded in the damndest places, looking up through a thin cloud layer at the sun trying to peek through. But I couldn't go. I innovated tricks to keep me from going nuts. What do you do when you're stuck by IFR conditions? I began looking around for the local industries.

At LaGrange, Ga., I found the local Coca Cola bottling plant, a brand new structure. At Crestview, Fla., I found a farm and two lovely old ladies pursuing the fine art of family-style home cooking in a shack with a sign on it that said EATS. At a motel between El Paso and Las Cruces, N.M., which had its own strip, I learned a bit about ranching, as I did when I made a precautionary landing in roundup time at Vail, Ariz.

There are lots of diversions like this if you're stuck with flying VFR, and they can be very enlightening. But if you're headed somewhere that you *must* get to, well . . . After being stuck three days in St. Louis under 300 feet of fog once, I said to hell with it, and determined to get an instrument rating. Two minutes of instrument flying there would have saved me the three days.

Getting an instrument rating is one of the more intense exercises you'll ever get involved with. There are "standard" ways to do it, like going out to your local airport and putting yourself in the

hands of the FBO. You check him out, both for his reputation among other pilots, and for his equipment—and the general well-being of pilots who got their instrument ratings there and went off on their own.

I have an obsession. I think bad pilots—either IFR or VFR pilots—are a direct product of their instructors. A doctor friend of mine took his wife and two kids with him on an instrument flight, and wiped out the whole family trying to scud-run VFR along a mountain ridge, when he should have been up above it, on instruments, and safe. No ice or thunderstorms overhead; he just was trying to stay VFR. That's how another friend, one of Hollywood's greatest stunt pilots, also got it, and within sight of his home field. They forgot simple common sense.

Instructors with the appropriate ratings can teach a student the techniques of flying by reference to the instruments. But do these instructors keep an eye out for how their charges use their heads, their common sense? I'm sure both my friends knew better than to scud-run trying to stay VFR. But in the doctor's case, his instructor hadn't pounded this home enough to enable him to use his common sense and get the hell out of there. My Hollywood friend was in the category of the overconfident airline pilot who goofs. The sharpest pilots in the world get caught, many times.

I guess that because I'm me I went about getting my instrument rating a bit on the different, unusual side. In all the VFR flying I did, I simulated doing the same thing IFR. When I made a trip, I did it all on the airways, flying at VFR altitudes. I kept a written log sheet. I found and noted intersections, station passages, and even practiced holding patterns when I had a few moments to spare (I still am lousy at these). I practiced ILS approaches, with approval from the tower. I practiced ADF approaches (still lousy), VOR approaches and all the many and varied tricks that the surveillance radars can

do to get you on the ground and even practiced GCA approaches and four-course radio range approaches.

In other words, I got comfortable using the system, very often without the system even knowing it. Then I began contemplating getting an instructor. I asked the advice of a friend, Hal Miller, an American Airlines captain. He thought a minute, then said, "I've got an instructor's rating. Let me do it."

That took me aback. How? Where? When? "Let's do it in your Bonanza (I had an old Model 35 then), and we'll do it all in your plane and on actual trips."

That jolted me more. But it was a lot like what I'd been doing myself, so I got a hood and set a time. It was a rainy morning, and when we met at the airport he told me to file IFR to LaGuardia. LaGuardia! In those days LGA was very high on the busiest-airports list. But then, so was Washington National, where I am based. So we filed and I went through all the razzle-dazzle on the radio (it's three times worse now), and we were off, climbing to our cruising altitude on instruments. I wondered if Hal was being reckless; I still had the single throw-over control wheel. "Don't worry. I'm watching how you handle it on instruments. If anything goes wrong I'll just reach over and take it away from you."

We made an ILS approach to LGA, broke out of the rain fairly low, and landed. We went in for a cup of coffee. I was exhilarated. "That's the object," Hal said, "to get you over the feeling of impending disaster and get you to relax and be comfortable on instruments."

Next we filed for Harrisburg, Pa. Thunderstorms in the area. I tensed; I have a deathly fear of thunderstorms and ice. "Relax, there are plenty of places we can divert to, or we can come back here. Radar will help us."

Another ILS at HAR. I checked immediately, and found it was still raining all the way to Washington, so I filed IFR again. I copied the clearance at the end of the runway. (I'd practiced these many times, but soon learned that ATC



## *"I use my instrument rating like . . . an imaginary tool kit."*

doesn't care what you've learned; they'll slap you with a weird new clearance you never heard of, and then begin changing it again as you climb out on instruments.)

Hal laughed. "This is the sort of thing that bugs airline pilots too, so don't think they're picking on you."

An ASR approach to Washington, and I was home. "Well, there's your first IFR lesson, in a real live environment. I'll list a few items you can work on, but generally I'm proud to say I didn't get killed once!" That's a line I've used many times since.

This is the way it was until I was halfway through my training. Whenever I was with Hal, I filed IFR, and went through all the nonsensical jazz that the airlines have since adopted as their standard "safety" policy, rain or shine. Then, in the middle of my training, Hal was transferred to Texas. *Now* what do I do?

Again, I asked a friend. "I know Jim Hoots is an ex-USAF instrument instructor. I think he instructed at Bryan, Tex. Let's ask him." The Bryan instrument school! A hero! I'd met Jim. He was a nice guy—quiet, gentle and fun to know. So I looked him up and told him what had happened and asked what he'd suggest, in view of Hal's slightly

unorthodox method of teaching. He almost jumped at me. "Me. Let me finish you off (I flinched). I'd love to fly in one of those Bonanzas. But I want to warn you—we may get along fine here on the ground, but I'm a tiger in the air. You'll do it my way, or you won't do it at all." Sort of innocently, I agreed. We made our first date, again at Washington National. No filing of flight plans, no ATC bureaucracy. "Just take off VFR and climb out west away from the field, to 5,000 feet."

As my wheels left the ground the orders flashed like lightning. "Hold a heading of 268° and climb at 500 fpm at 24 inches and 2,300 rpm." I drifted to 270°. "I said 268. Get back there." I knew I was in for it. Hal hadn't put me through the "book learning" and the plane drills. Jim was proving to be quite something else.

"Now climb in a 15° right turn at 300 fpm to 336°, level off at 4,800 feet and hold it there."

There were days of this. Jim never cracked a smile, and I perspired. I did every conceivable kind of turn, maneuver, rate of climb and descent. He just sat there barking instructions.

I was certain of one thing: Jim was a fine instructor, and he left all his buddy-buddy friendships on the ground.

And he hammered on me so intensely that each flight was exhausting—but, to my surprise, I got awfully good at what he was demanding, after a while. I could put that plane precisely where he ordered it, every time, keep it there, and watch for traffic besides.

One day Jim signed my log book, said "see you later" as he walked to his car, and it was only after looking in the log myself that I realized he was through with me. I made a beeline for my office, then called the FAA examiner at a nearby airport. He told me to come over in the morning and he'd give me my checkride. Henry Hamilton was having breakfast when I got there. He asked if I knew how to file IFR to Baltimore, for a low-frequency range approach to Harbor airport (long since closed). I did. We climbed in, took off VFR and called Washington tower; it gave me my IFR clearance, I put on the hood and away we went. Henry said practically nothing.

I had the low-frequency range approach plate on my lap. He looked at it, nodded, and I went into my act. I bracketed the range leg, let down, he nudged me, I lifted the hood, and there was the runway right in front of me. We landed, went in for a cup of coffee—and suddenly there was a phone



call for Henry. He took it, and came back in a hurry. "Sorry, Max, I've got to go. There's been an airline accident near Brunswick. Give me your log." He grabbed my log book, signed it, and disappeared. The day was May 20, 1958.

I had my instrument rating. No unusual maneuvers, none of the nightmare things I'd been tensed up for. Just one range approach and landing.

That's a rather unorthodox way to get an instrument rating, I'll admit. During the course of all this, I'd somehow had my mind made up about how I would use it. I'd decided I'd only log actual—"wet"—instrument time, not an entire IFR flight in which I actually got five minutes of instrument flying. I felt fortunate that I wasn't actually afraid of flying in clouds or rain; I had been before I got the rating. I went out of my way to go actual IFR whenever I could, just to keep my interest high. At the present time, just 2% of my total flying has been actual IFR—and that includes five transatlantic crossings.

I use my instrument rating like a tool. It's in a sort of imaginary tool kit I carry with me—my head. That kit contains most of the ATC system, the basic rules, the nav aids and my instrument rating. I've said many times that I use

my instrument rating like I'd use a new hammer. When I need it, I take it out of the box, use it, then put it away. A number of pilots I know seem to worship their version of this hammer. They say prayers to it every time they fly, shower it with incense and myrrh and constantly revere it. My personal opinion is that this has developed into a psychosis, which the FAA encourages (it helps them build their empire) and which lies at the root of a lot of near-misses and collisions. Many highly skilled professionals (mainly airline pilots) sit and stare at all those instruments and indulge in the adulation so much they've forgotten what their windows are for. The original air traffic control system was invented solely for the purpose of enabling pilots to continue to fly when they themselves *couldn't see out their windows*. That's all ATC is for, and it is one of man's great inventions of this century.

But the old bromide you've heard about instrument ratings is quite true: "Now you have a license to kill yourself." I started out using mine with great caution. I set my own, higher, minimums; forget what the approach plates say about them. If I'm comfortable letting down to 1,000 and 3, fine, that's my minimum. As I got more

experience, and more faith in the plane and its equipment, I could lower my minimums. Right now I'm roughly to 300 and 1/2, which permits me to use my plane almost any time I want to.

General aviation takeoff minimums are zero zero. I approve of that, and use it. Airline pilots occasionally raise objections, because they have the higher minimums demanded of public carriers, and they resent what they consider a reflection on their skills.

One of the most important reasons I use my instrument rating is for life insurance. Some of the narrowest cracks I've ever gotten into in my plane have been the direct result of busted weather forecasts. Any pilot who's flown over 500 hours quickly becomes his own gut-bucket meteorologist. He must; that will save him, eventually. That and his instrument rating. That's why I stay current—by *my*, more stringent, standards, not the FAA's.

I dread the pilot who says, once he gets his instrument rating, that he's putting it in his back pocket and will never use it, but will always have it there "just in case." Just in case of what? If he ever gets caught in weather, and has never used his instrument rating until that moment, he'll end up a statistic. □