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Who Needs an Attitude Indicator?

Real-world instrument training

By **Kathy Dondzila** (From [AOPA Pilot](#), August 2000.)

My instrument knowledge test had been passed—twice. I'd been chipping away at the instrument rating for several years—flying a few hours a month, with months sometimes passing between lessons. Weather, schedules, and aircraft availability had all played their part in confounding my flight training plans. And with all the demands of earning a living and the challenges of raising five kids, juggling instrument training into the schedule had been daunting. Three times I'd stopped and started training and three times lost the momentum. A recent flight review was the first flying I'd logged in more than a year.

My coworkers and friends encouraged me to try again. Some of them are flight instructors who had flown with me occasionally. They told me I had good piloting skills and flew instruments well. They suggested that I set aside a chunk of time away from work and home to focus on nothing but flying, and finish the rating. Frankly, after so much frustration with the training process, I wasn't sure I really could earn the rating, but I decided to give it one last try.

So, I called GATTS—General Aviation Training and Testing Service—in Manhattan, Kansas, and told them my story. To my surprise, the staff wasn't the least bit concerned about my ability to complete their course on schedule. Many of their students had faced similar training challenges and had completed the rating. If I was willing to work hard, I was a candidate for success. GATTS guarantees that the student will be satisfied with the training and rated before payment is due. GATTS also offers graduates free lifetime recurrency training. The employees' enthusiasm and encouragement won me over, and I signed up.

My commuter flight from Kansas City landed at Manhattan Regional Airport, a rural field with a part-time tower and not much traffic—a nice environment for training. I nervously grabbed my bags and tried to calm my pounding heart as I deplaned. I was terribly afraid of failing and hoped I could pull this off.

Dale Wolcott, GATTS' founder and pilot examiner, greeted me as I walked into the fixed-base operation. My confidence slowly began to build as Wolcott chatted enthusiastically about the GATTS training course. The company was founded 10 years ago and has graduated about 1,000 students—averaging 100 per year. Wolcott explained that most GATTS students are private pilots who own their aircraft and occasionally need to fly in instrument meteorological conditions (IMC). Most are not advancing into commercial operations, he said.

GATTS teaches simplified procedures that lower pilot workload, minimize distractions, and anticipate the next flight action. Safety is the primary goal, Wolcott stated, and "real-world IFR" skills are taught one-on-one with a highly trained instructor who tailors the curriculum to the student and his aircraft. Flight lessons on personal computer-based aviation training devices (PCATDs) are integrated with airplane flight time.

Day One

The soft-spoken, easygoing manner of my flight instructor, Lyle Wedel, instantly put me at ease. Wolcott was out giving a checkride. Wedel and I flew the PCATD using Jeppesen's FS200 software. This is one of four approved flight training devices at GATTS. We set up the PC with the airplane already at altitude and focused on maintaining heading. Wedel pointed to the attitude indicator and

said, "You see this instrument?" I nodded as I concentrated on my scan. "This is the last time you'll see one of these all week." To my amazement, he proceeded to cover it up with a yellow "sticky." I was learning to fly instruments with no attitude indicator—why? Wedel grinned and explained that attitude indicators tell you what the airplane's attitude is in relation to the horizon—not what its performance is. It is entirely possible to have a nose-up attitude and be going down.

We added altitude to the scan. When both heading and altitude remained fairly steady, we tried some standard rate turns. So far, it seemed simple enough, and I was doing fine. Wolcott came back from the checkride with a newly rated instrument pilot who had just finished the seven-day course. If he could do it, I thought, perhaps I could, too.

After a break, Wolcott and I met in the classroom and debriefed on what I had flown on the PCATD. He stressed that I was learning "performance flying"—not "attitude flying." He said that excellent instrument pilots understand the airplane's "comfort zone" and keep its performance within those limits.

After lunch, I preflighted GATTS' Cessna 172RG, and Wolcott and I took off for an orientation flight. I knew that he was the examiner with whom I would fly the checkride. Although I was nervous, he quickly put me at ease on this familiarization flight. There was a big blue sky over Kansas, and we flew VFR as I got acquainted with the airplane and discovered its "comfort zone"—the manifold pressure settings that give the desired performance during climbs, cruise, and descents. We flew a few touch and goes at Manhattan, leaving the gear down throughout the pattern practice. My flying was not too bad, but my landings were not very good.

I spent the rest of the afternoon discussing VORs with Wedel. We used a dry-erase board to visualize tracking and intercepting VOR radials. We flew the PCATD until 5 p.m., drilling the procedures. My confidence was beginning to build.

Day Two

A nasty low-pressure system was forecast to bring storms and high winds to the Heartland. Wedel and I reviewed VOR and NDB tracking and intercepts on the PCATD until about 10 a.m. We wanted to get a flight in before the worst of the front arrived, but because winds were forecast to reach 50 mph by noon, we decided to stay on the ground. Wind howled and rattled the building all day as we continued to fly approaches safe and cozy on the PC. We ended a little earlier than usual for a special evening event.

Wolcott invited another GATTS student, Steven Stamps, and me out to sample some local culture—buffalo steaks for dinner. Stamps, the chief technology officer of Advanced Systems Consulting in Chicago, was a 300-hour pilot who needed his instrument rating to better utilize his airplane but had little free time for traditional training. In addition to the seven-day course that I was enrolled in, GATTS offers a 10-day instrument course that includes three days of ground school, culminating with the knowledge test and followed by seven days of flight training. This seemed like an ideal solution for Stamps. He had flown his Piper Turbo Lance to Manhattan a few days earlier and had just completed the three-day ground school. Stamps is typical of the GATTS students, Wolcott said—an aircraft owner who needs to occasionally fly his single-engine airplane in IMC conditions.

Day Three

A 5,000-foot ceiling and 20-knot winds made a nice environment for our morning flight. We flew VOR radial intercepts, holding patterns, and VOR and NDB approaches. Manhattan's air traffic controllers were courteous and accommodating to our continuous requests for practice approaches. Wedel kept a sharp lookout for conflicting traffic, and I concentrated on flying. I hardly missed the attitude indicator.

After a quick lunch and debrief, we took to the air again to fly another set of holds and approaches.

This part of Kansas has many airports, so the training has a lot of variety. By 3 p.m. I was tired, and it showed in some sloppy maneuvers. We flew to a full stop and spent the last couple of hours debriefing, discussing approach charts and wake-turbulence avoidance. Still, even with a couple of poor approaches, I could see improvement in my skills and had a growing sense of confidence.

Day Four

The morning was spent in cross-country flight planning. In addition to a thorough review of en route charts, GATTS teaches some common-sense techniques for safe flight:

- Plan three routes—one on either side of your preferred route of flight. Highlight the largest airports and get forecast weather for all the highlighted airports. That way, you will know not only what the big weather picture is but where the VFR weather is likely to be. Circle the VFR areas on your en route chart with a bright highlighter. If the weather goes down and you need to find VFR skies, you will already have a mental picture of where to fly.
- If the weather is forecast to be IMC along your route, find an airport with a VFR forecast that you can reach from anywhere on your route. If there is no VFR weather forecast for any airports within flying distance of your planned route, do not go.
- Fuel: Allow the required 45 minutes, plus 30 for a second approach at your destination, plus 30 more for a second approach at your alternate—a total of one hour and 45 minutes' extra fuel.
- Call flight watch, 122.0 MHz, for weather updates and to give pilot reports.
- Pick only alternates with ILS approaches. Do not fly nonprecision approaches at your alternate. GATTS' common-sense reasons are that you will be tired, the weather will be low, and you will be almost out of options. Give yourself the best shot at landing.

Although it is legal for FAR Part 91 operations to take off in zero visibility, is it wise? GATTS recommends an "emergency return strategy" as follows: Double the approach minimums for takeoffs in IMC. For example, if the ILS approach minimums are 200 feet and half of a mile, set personal takeoff minimums at 400 ft. and one mile. Have the ILS approach chart for the departure airport clipped to the yoke and the ILS frequency tuned and identified. That way, if an emergency occurs and you have to turn back to land, you have a plan for success.

In the afternoon, I got a taste of flying in Kansas wind—steady at 28, with gusts to more than 35. The air was very rough, and we had occasional moderate turbulence throughout the 1.5-hour flight. Despite the constant fight to maintain heading and altitude, and feeling a bit like a cowgirl on a bucking bronco, I successfully flew one hold, two VOR approaches, and two pretty good crosswind landings. The nagging doubt of my own abilities moved to the background, and I was encouraged that I was getting the hang of this.

Day Five

Today was ILS day. We discussed procedures for tracking and holding the localizer and maintaining the glideslope. Wedel and I flew four ILS approaches, and all but one were acceptable. After lunch, Wolcott and I flew some steep turns and unusual attitudes. This was the first time the attitude indicator had been uncovered all week. We needed it to determine a 45-degree bank. Wolcott then vectored me for VOR and ILS approaches.

Day Six

Wedel and I planned and flew our cross-country flight to New Century Aircenter, near Kansas City, Kansas. We requested VFR traffic advisories, then decided to file IFR in the air. The Kansas ranchers were burning off acres of last year's grass, and the sky was filled with smoke. It was marginal VFR at best and, at some points, IMC. We were vectored for the ILS approach. We filed IFR for the return trip and flew the ILS into Manhattan.

I knew that checkride time was close—probably tomorrow. As my anxiety built, I voiced the dreaded thought, "What if I don't pass?" Wedel encouraged me, saying that my skills were within standards, and I should have no trouble passing. And he assured me that if I blew the ride, he would work with me until I passed.

So, with that understanding, I took my checkride. I was very nervous, but after I settled down, the week's intense training paid off. I flew fine; the approaches went well; and I greased the crosswind landing to a satisfying one-wheel finish.

GATTS helped me to accomplish in one week the rating I had struggled with for years. I believe that I could have completed the training without my previous exposure to instrument flying, but if I did not, I had a guarantee of as much additional training as I needed. The staff's straightforward approach simplified even the most complicated instrument tasks. GATTS teaches techniques that work for individual pilots flying their particular airplane in the real world. Its slogan, real-world IFR, is well-suited.

GATTS' seven-day instrument course costs \$5,000 and the 10-day course is \$5,500 in the customer's aircraft; add \$1,000 per course to train in GATTS' airplane. The price includes hotel and rental car. For more information, call GATTS at 888/778-6676 or send an e-mail message (gatts@flinthills.com). Kathy Dondzila is a 300-hour private pilot and editor of the Seaplane Pilots Association's Water Flying magazine.

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