

Expand Your ICEBERG

PLANE & PILOT TAKES
ON AFIT'S 10-DAY
INSTRUMENT-
RATING PROGRAM

STORY & PHOTOS

BY MARC C. LEE

I'm three days into a 10-day accelerated instrument-rating program, shivering against the biting cold while fumbling with the keys to a Cessna 172. It's 17 degrees outside as Cedar City Airport (CDC) in southwestern Utah settles in for a snowy night. With the gyros still whirring down, I catch sight of the red craggy peaks of Zion National Park in the distance, the sun casting long shadows across their faces. Six hours in the logbook today, and I feel like I'm drinking from a fire hose.

I was a stick-and-rudder pilot with very little knowledge of instrument flying. Steeped in flying wires, tube and fabric, I never thought I'd need or want an instrument rating. However, as I've progressed in aviation, I've learned the limitations of VFR-only flying, and want to become a better, safer pilot. As an avi-

ation writer who frequents technologically advanced aircraft (TAA), I needed an instrument rating.

The instrument ticket is the big daddy of ratings—the toughest one by all accounts—and training once or twice a week at a traditional FBO would likely push me beyond the national average of 70 to 80 hours to earn it because of what I'd forget between lessons. I could count on a year or so to finish, sacrificing every weekend and day off I had. The cost would be exorbitant. There had to be another way.

AFIT (Accelerated Flight & Instrument Training) is an outfit that offers a 10-day "full-immersion" instrument program. While there are other accelerated programs, AFIT guarantees theirs, and they've been around long enough to be

a standard bearer in instrument training. AFIT trains 20 to 30 pilots per week, with 98% of them passing their check-ride the first time. The idea of doing my rating at AFIT was intriguing.

The basic tenet of AFIT's program is that training in spurts—as one would do at a traditional FBO—costs more money and takes more time than if the training is done all at once. In AFIT's program, the student builds on concepts and skills learned the previous day, and so progresses quickly without backsliding. Their compressed timeline saves the student money in the long run. The program is intense, but proven.

There's no simulator time, and all the training is done in the airplane. It's what makes AFIT different, and fits their philosophy that nothing in a simulator can beat 40 to 50 hours of actual flying—some of it in actual instrument conditions. AFIT's program cost is fixed, so once you're training, there are no worries about spending more money.

I decided to take the plunge.

Day 3: It's my second time shooting the LDA approach into St. George, Utah. This time, I have the needles pegged. My left "yoke hand" is sweating gallons, and I'm repeating the mantras I've learned from my Yoda-like instructor. "Tranquilo, tranquilo," ("peacefully" in Spanish) I whisper as the decision altitude gets closer. I've learned you don't make big changes this close to the runway. "Is your missed approach ready?" Yoda asks as I fumble with the radio call. *Crap! I forgot the missed approach! I look down for a millisecond to change the frequency on NAV 2 and twist the OBS ring as fast as I can. I look back up at the localizer, but it's pegged right. No! I crank in opposite aileron to save it but it's no use. The approach is shot, and I'm lost. I killed us!*

My preparations for the course began three months prior to the training date I scheduled with Tony Montalte, President of AFIT. A feature of the AFIT course is that their instructors will come to you.

The catch is that "coming to you" means you'll still be in your everyday environment and subject to phone calls, demands and distractions. Instead, I took Montalte's recommendation to go elsewhere and do the training away from familiar places and people. AFIT has a network of FBOs across the country that they work with to rent aircraft, or you can train in your own aircraft at a location that you choose.

I decided to combine my IFR training with some mountain flying. Montalte recommended Sphere One Aviation in Cedar City, Utah—a stellar FBO with an affordable, but basically equipped Cessna 172. The FAA is a bit anachronistic in its practical test requirements and requires IFR training to be done the old-fashioned way: with VORs. Glass can be used as long as it can replicate the VOR/OBS functions.

Preparation is a major key to the AFIT program. Each client is vetted beforehand to make sure he or she has the



AFIT's instrument program is based on 40 hours in the airplane with no simulator time.

Gear

There's a cliché about pilots: We love our gadgets and gear. But training for the instrument rating was one situation in which having the right gear made a huge difference. When you spend six to eight hours in an airplane working hard on complex tasks and new skills, the pressure is on, and anything that relieves that pressure is critical. I found in this experience that certain things work and others don't. Here's a list—based on my own opinion—of the gear that worked for me.

View Limiting Device	Viban visor www.viban.com	You'll use this item more than anything else. Viban wins on several fronts. First, the black color is key. Other devices are white or have a "foggy" appearance. This creates a distracting white highlight that attracts your eyes—not so the Viban.
Ground School Course	King Schools www.kingschools.com -Knowledge Test course -Practical Test course	There are other courses available that have newer and fancier graphics, but nothing beats the King courses. Easy to understand, fun and packed with tips. I used the online version.
Headset	Quiet Technologies Halo www.quiettechnologies.com	There's not a clamping headset out there that I can wear for six hours a day. Unbelievably comfortable and light (less than an ounce!), the Halo performed flawlessly. For \$359, it's a steal.
Flight Planning/Charts	iPad with ForeFlight www.foreflight.com	All I can say is, "Wow." ForeFlight made the oral exam easy by letting me show the examiner weather briefs, approach plates, IFR low-altitude en route charts, the A/FD, AIM and all my flight planning in one place, and up-to-the-second. A must-have for instrument pilots.
Books	<i>FAA Instrument Flying Handbook (FAA-H-8083-15B)</i> <i>Gleim Aviation Weather and Weather Services</i> <i>ASA Oral Exam Guide—Instrument</i>	<ul style="list-style-type: none"> • Excellent on all fronts. Know this book and you'll pass the written and oral. • The Gleim book should be required reading for every pilot. You'll need to know how to read these charts and reports. • The ASA Oral Exam Guide was my bible for two months. It's an excellent overview of knowledge for the oral exam.
Flight Bag	Sporty's Flight Gear Mission Bag www.sportys.com	I needed something small enough to fit behind the Cessna 172's seats, but big enough to hold all my IFR stuff. This bag was ideal. I couldn't think of any way to make it better, other than including a place for my big yoke clip.
Exam Prep	Aviation Seminars two-day course www.aviationseminars.com	Although this wasn't required, it proved invaluable. The seminar gave me current test information and helped cement the concepts I learned in the King course. By taking the seminar, I feel I improved my score by a good margin.

proper logged time, medicals and other paperwork. AFIT sends a list of required study materials to the student well in advance, along with a detailed schedule of the 10-day program's curriculum. Students must pass the written exam before they begin training—AFIT prefers an 80% score or better.

In my case, I ordered the King Schools Instrument Rating course and started right away. I watched the videos every night and at every lunch break. I've yet to find a more comprehensive and inclusive course. Although the King courses may not look as pretty as more modern offerings, there's something in the way they teach the material that makes it stick. I decided to cement that knowledge (and further ensure a good test

score) by also taking a two-day written exam course offered by Aviation Seminars over a weekend.

Since June of 2012, The FAA has gotten wise to students simply memorizing written test answers, so they no longer publish the instrument exam questions. They've added questions and scrambled the way questions are presented. As a result, you need a solid foundation of actual knowledge or you won't pass. Aviation Seminars did an excellent job of filling any gaps in the King course. I passed my written with an 88%.

While waiting for my training to begin, I pored over the training materials like a hound on a chase. I read the FAA's *Instrument Flying Handbook* so many times the pages were wrinkled and stained

with months' worth of snacking and note-taking. I read the *Gleim Weather* book cover to cover and nearly memorized ASA's *Instrument Oral Exam Guide*. In retrospect, my thorough preparation was of key importance—it allowed me to concentrate on flying.

Day 5: "During IFR training, your brain is like an iceberg," my instructor said over the drone of the Lycoming. "When you start training, the iceberg is small. All the things you have to remember are like penguins jumping on the iceberg. At first, there are too many penguins and not enough iceberg. So, if you add a penguin—an IFR task—another penguin has to jump off. Right now, you have too many penguins and not enough iceberg. However, after enough practice, your iceberg will get bigger."



Instrument training in the mountains of the West means minimum en route altitudes above 11,000. Using online resources for weather and flight planning, along with studying AFIT's suggested materials well before the course, will get you past the oral exam and provide a good base for learning instrument-flying skills.

When the day came to begin training, I arrived at the airport loaded a bit like Robert N. Buck in his book, *North Star Over My Shoulder*, where he recounts reporting for his first airline job with a typewriter in a suitcase. My instructor, John Templeton, was familiar to me from his emails. We shook hands—I immediately liked him—and dug right into ground school. Outside, a virulent snowstorm grounded everything for hundreds of miles.

If there's one "secret" to the AFIT program, it's their instructors. Montalte is exclusive and hires only the best. He makes no apologies that his instructors sport gray hair. The average age of an AFIT Instructor is 55. They average 8,000 to 20,000 hours logged flight time and 2,500 to 8,000 hours of logged instrument time. Each individual is handpicked, and each instructs because he or she genuinely loves teaching. There are no time-builders here.

Templeton is exactly the right fit for me. His 40 years in the air include flying for Part 121 and 135 carriers and giving more than 2,000 hours of flight instruction. Templeton owns his own taildragger—a Maule—and specializes in crosswinds, technical and mountain flying. He

tows gliders during the summers, and has a background that includes flying turbo-props full of river-rafters to the Grand Canyon. "I bring a toolbox of things to help you learn," he says as we walk the icy path to the FBO. "My job is to figure out which tool works best for you."

In the pressure-cooker environment of IFR training, the instructor becomes teacher, life coach, motivator and mentor. He or she has the unenviable responsibility of making an instrument pilot out of a variety of aviators. It's a relationship unlike any other, one that transcends social niceties. To digest all that's stuffed into your brain, you have to be open with the instructor.

Templeton imbued me with enough flying lessons and tips to fill a hundred magazine articles. In the process, we solved world problems and laughed a good deal. He showed me that in aviation, there's no substitute for experience, and that precision in IFR flying is paramount because there are rarely second chances if mistakes are made. I learned that the student-instructor match is critical.

Day 6: Flying the VOR approach into Cedar City, I have the needles pegged so perfectly it's like all the instruments are

frozen. I'm throwing subtle hints at my instructor so he notices my surely impressive performance while juggling a million things: airspeed, wings level, watch the needles, position report, final approach fix, landing check... "Ok, look up," my instructor says, dejected. "Where's the runway?" It's a mile off my right wing. I had forgotten that this approach includes a 10-degree turn during the last few miles. I'm pointed at the mountain. "You just killed us," he says curtly. "Let's try it again."

Once we start in, the days blur. We're grounded for two days by the snow, but we manage to get in some actual IMC time during a break. It's a transcendent experience flying an ILS approach through towering clouds—without the visor—in a land where MEAs (minimum en route altitudes) are in the teens. I'll never forget that first approach and the great accomplishment of seeing the runway ahead through the gray murk.

Soon, the routine becomes a part of normal life: Early morning to the FBO for ground school and briefing the day's objectives. A few hours morning flying reviewing skills and shooting approaches. Lunch while debriefing the morning's flight. Two to four hours flying in the afternoon learning new skills and shooting more approaches. Land and debrief. Back to the hotel to study and review. Quick dinner and then a fitful sleep dreaming of radio calls, DME arcs and missed approach procedures. Repeat.

The emotional process is like going through any major life event. You feel excitement, frustration, acceptance and—finally—enlightenment and learning. The experience is equal parts boot camp, summer camp, motivational seminar and college all in one. The challenge is to keep frustration at bay, because every IFR student hits a learning plateau. The flying itself is both art and muscle memory. Templeton teaches me fingertip control and delicate rudder turns. It's nothing like I imagined, and fills me with an enormous sense of accomplishment.

Detractors say the knowledge gained



Sphere One Aviation

Sphere One Aviation in Cedar City, Utah, was my home for 10 days, and I can't say enough about them. At a time when pilots spew negative feedback about their experiences with surly FBOs that don't care, Sphere One stands out as a throwback to a time when things in aviation were simpler and friendlier. The greatest compliment I can pay them is that Sphere One felt like I was at home.

First, owner and General Manager Brenda Lee Blackburn runs Sphere One with



her two charming assistants, J.J. McGuire and Mavourneen Lamb. Together with Jay Orton, they oversee every nuance of the FBO's operation and run it like a cozy bed-and-breakfast. McGuire makes homemade soups, pork chili in green sauce, elegant sandwiches and a cooler full of

fresh-cut fruit and vegetables each day.

Lamb and McGuire make sure the frequent guests are taken care of. Orton sees to it that aircraft are fueled and handled properly, and that ramp attendants are doing everything they can for visiting aircraft and pilots. The whole staff handles scheduling, and you can count on speaking directly to one of them if you call on the telephone. The brand-new, Swiss chalet-like building is comfortable and spacious, with a convenient upstairs area with whiteboards and an enormous wall chart of the entire state in sectional chart format. It's quiet and private—a perfect place to learn.

One example of Sphere One's attention to detail came after a particularly late flight when we arrived after the FBO had closed. Although it's normally hangared, we had to leave the Cessna out in the frigid overnight weather. The next morning, the aircraft was covered in frost and felt like a refrigerator inside. Without prompting, the team pushed the airplane into a heated hangar and cranked it up just so we could have a warm, dry airplane to fly. Each night, we just left the plane out on the ramp, and the next day we arrived to a hangared, fueled, warm airplane ready for us. That's service.

Any time you're training for long periods, you're bound to run into minor maintenance issues. In our case, the Cessna 172 had just hit the 50-hour oil change mark after a particularly late flight. Sphere One's Chief Mechanic, Jerry Jorgenson, stayed late into the evening making sure the maintenance was complete so we'd be ready to go the next morning.

You don't have to take my word for it. While we were training, John and Martha King stopped in on a few occasions while they were doing some jet training of their own. They know just about every FBO in the nation and choose the best for their stops. "We just care about our customers," says Blackburn. "That's why our mission statement is painted on that entire wall, because we are committed to aviation and to everyone who comes through Sphere One."

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in such an intense program disappears quickly. However, this is the way the military does it, and they can take an 18-year-old kid and teach him or her to fly a supersonic jet fighter in a matter of months.

Checkride Day: *The oral was exactly as I expected; glad I studied! Now in the cockpit, I go through every check and task*

I've learned these last 10 days. "Taxi check complete," I announce. I set the radios, identify the frequencies and set the OBS knobs. My examiner asks me to perform a published instrument departure. I somehow miss the VOR but intercept the radial and enter the hold properly. My altitude is a little off, but I explain that I'm correct-

ing, and he senses my "checkride-itis." Okay. Now to perform three approaches...no problem on the first one. He has me do a DME arc to intercept the localizer. Suddenly, he has failed my glideslope. I call out my altitude stepdowns and hit them all. I'm feeling good. Compared to the last 10 days, this is easier. Two hours later, it's over. "You passed!" my examiner announces as we touch down. My hands are shaking so hard I can hardly taxi. I want to shout.

Looking at my Temporary Airman's Certificate, I stare at the words, "Instrument Rating." AFIT took on the challenging work of transforming a basic, stick-and-rudder pilot into an instrument pilot in days instead of months or years. In the process, I forged some friendships and learned lessons about myself as a pilot. My flying has become more precise and sure. The goal of precision has become fun for me—just as Templeton and my examiner said it would. My iceberg has gotten bigger.

One can't help but feel changed after such an experience. I gave AFIT 10 days, and they gave me the world, one approach at a time. P&P

Visit www.afit-info.com for more information.

