

# 'You're not a real pilot'

Or how I learned to fly a taildragger

BY PHIL BOYER

**T**hroughout my 35 years of private flying I have consistently been admonished by fellow pilots that "you're not a real pilot until you have flown a taildragger." I hate to admit it, but during my entire flying

career, accumulating more than 6,500 hours, I have never logged any time in a tailwheel-equipped airplane. Don't be too quick to criticize me, since I am probably the typical private pilot who learned to fly in the past three or four decades. My introduction to flying was in the training airplane of the time, a Cessna 150. The tricycle-gear airplane allowed a fresh young pilot to land in crosswinds without incident. Then, like most pilots, I transitioned through the single-engine piston Piper and Cessna models so prevalent at the time. All had a nose gear, and to many of us that was the norm—why fly anything else?

Then came the 2002-2003 sweepstakes project. The AOPA Centennial of Flight Sweepstakes airplane is a beautiful fully restored, 1940s-era Waco UPF-7. Normally I play some role



in delivering the airplane to the winner, but since this airplane has no nosewheel, I would need a tailwheel endorsement just to taxi up to the winner. But my motivation wasn't just to be able to deliver the airplane. I never thought of myself as a complete pilot when those around me were telling their stories of Piper Cubs, ground loops, and flying taildraggers.

In late August 2002, I scheduled a weeklong vacation with a twofold purpose in mind: One, to earn a tailwheel endorsement; two, to check out in and solo a Waco UPF-7, similar to the one a lucky pilot will win in our sweepstakes. I would travel to Owatonna Degner Regional Airport in Owatonna, Minnesota, to train with Roy Redman, founder of Rare Aircraft, the company restoring our sweepstakes Waco.



PHOTOGRAPHY BY MIKE FIZER



## AOPASWEEPSTAKES

Perhaps because of the daunting task ahead, Roy decided I should have two instructors: He would alternate with Dave Schroeder, a Northwest Airlines captain. Dave had flown with Roy during Roy's days as a Northwest captain and now worked at Rare Aircraft as the chief flight instructor for the small but growing flight school.

When I arrived on Saturday morning, Roy's son Ben gave me my first instruction: how to get into and out of the UPF-7—what strut to hold onto when climbing onto the lower wing, what not to put pressure on, and how to step on the seat with your right foot. Slithering

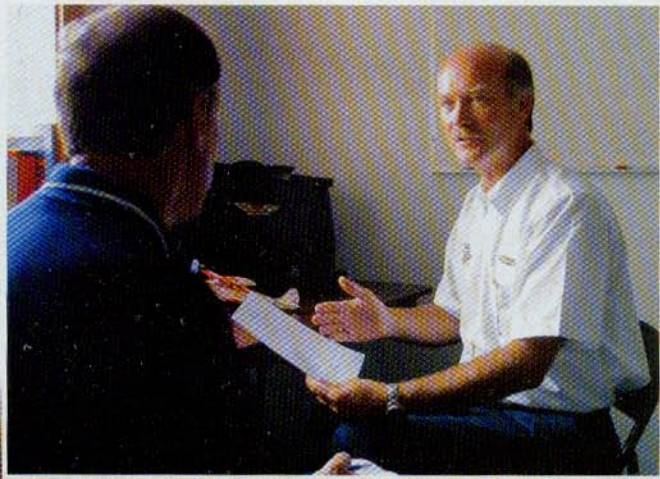
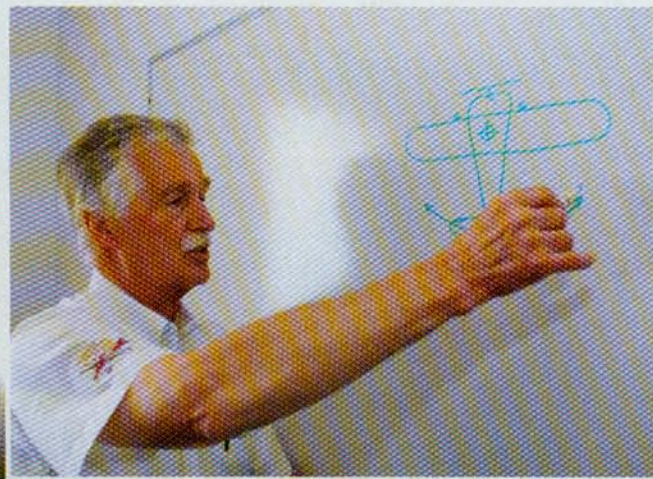
into the single-person rear cockpit took some practice, but soon I *looked* like a Waco pilot, even though I didn't know the first thing about flying one.

By midafternoon I had my first dose of reality about the most important aspect of flying tailwheel airplanes: wind. It had picked up. While only blowing at 10 to 12 knots, it was angled across the runway enough for my instructor to decide we'd start my flying lessons the next morning.

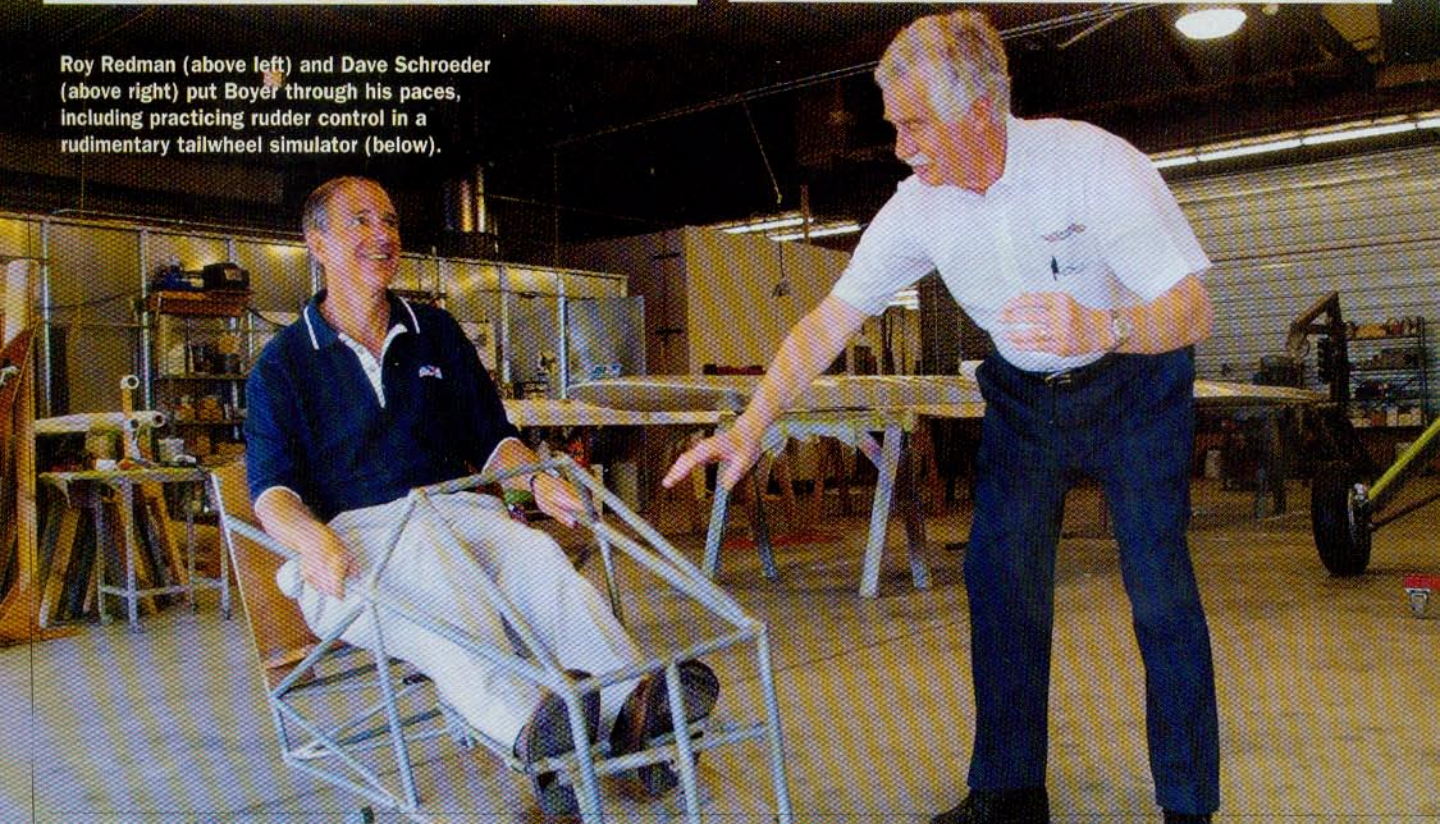
Early Sunday morning I got to experience what general aviation is all about in small towns. We couldn't start right away because the airport was filled with small airplanes coming to attend an annual Civil Air Patrol pancake breakfast. It was tough for me to go incogni-

to, so very soon my secret mission for the week was out among the local pilots. By midday the chairs and tables were cleared from the hangar, the visitors had departed, and Roy started me out on his official Rare Aircraft tailwheel course. After a full 24 hours on site, I was ready to fly, but instead we began with ground school.

Item one on the two-page syllabus was to "assess the student's background." I told Roy that was easy. I had no tailwheel experience to speak of. He seemed pleased that I had obtained a seaplane rating two years ago in a Cub on floats, which gave me experience flying with a stick, rather than a control yoke. And he reminded me that there was a time when everyone learned to



Roy Redman (above left) and Dave Schroeder (above right) put Boyer through his paces, including practicing rudder control in a rudimentary tailwheel simulator (below).





fly without a nosewheel—there were just some basic physics concepts to keep in mind.

In tricycle-gear airplanes the center of gravity is forward of the main landing gear, while in a tailwheel airplane it is behind the main wheels. The fact that a body in motion remains in motion causes concern for the tailwheel pilot in crosswind landings, where correction for drift after touchdown becomes a challenge. The tail in a turn wants to keep turning. Roy impressed on me the fact that instead of steering a nose-gear airplane, I must keep its tail from swinging. Anytime the tail begins to turn I must correct and arrest it immediately. Even the slightest crosswind on the tail surface needs quick action. We discussed p-factor on take-off roll and stall (or "three-point") versus wheel landings.

Now I was really ready to fly, but instead of going to the airplane we went into the hangar and Roy plunked me into the crudest simulator I have ever seen. Bert Sisler designed this funny-looking tailwheel sim, a concoction of pipes and a rudimentary pilot seat, to demonstrate to pilots how they must use their feet on the rudder pedals in order to maintain balance. It was in this contraption that I first was exposed to the concept of "dancing feet"—small and decisive movements of the rudder pedals to maintain balance in the sim or to track straight down the runway in the airplane.

*Ground school, the simulator—Roy, I'm your stick-and-rudder guy—let's get to the Citabria for my real flying lesson!*

Well, by this time, perhaps you've guessed, it was midafternoon again and the wind had picked up, postponing the first actual flying until Monday morning.

At the crack of dawn on Monday I began the now-familiar morning ritual of jumping out of bed, pulling open the drapes at the motel, and trying to determine the wind from the trees and grass. Next it was to my laptop to check the nearest terminal forecast and the Owatonna METAR to get a sense of the wind speed. Upon entering the airport parking lot I peered across the runway to check the windsock. First thing inside the building, my eyes met the computer screen displaying the AWOS readout of wind direction and velocity. For the next five days I was obsessed with the wind.

Nervously, I made small talk with Roy's wife, Judie; Karen, a Rare Aircraft

flight instructor; and anyone else who was around while I waited for Dave to arrive.

With Dave, I did a familiarization and walkaround of the American Champion Citabria 7ECA trainer I would use to begin my tailwheel lessons. A turn of the electric starter switch brought to life all 118 horses with no nosewheel underneath. Taxiing was pretty straightforward, and the visibility from the pilot seat in front was better than I expected. You fly the Waco from the backseat, but in the Citabria, all instrumentation is up front, and the throttle and carb heat

controls are on the left side under the window. Surprisingly, the reversal of the throttle and control-stick hands didn't really confuse my performance.

What an eerie feeling, once the take-off roll began, to find myself pushing forward on the yoke in order to gain rudder control and get the tailwheel off the runway. As Dave urged me to come more forward with the stick, I thought for sure I would plant the nose and prop right into the runway. *Dancing feet, dancing feet*, I had to remind myself as we tracked left and right of centerline on those first takeoff rolls.

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## AOPASWEEPSTAKES

Once off the ground it was pretty straightforward airwork: stalls, steep turns, slow flight, and attitude recognition. Since my ultimate goal was to fly the Waco, Dave made sure to give me helpful tips to handle what seemed to be Goliath compared to the Citabria's David. Not only was I using the horizon for basic VFR flying, but I was looking 90 degrees to the left and right to understand the angle of attack of the wing in order to judge landing, touch-down speed, and attitude control.

My first landings were full stall, power off. It seemed as though I was plunging the tailwheel into the runway as the wings lost their lift, and these three-point landings were uncomfortable at the outset.

After landing a tricycle-gear airplane, you probably have found yourself releasing yoke pressure. You're on the ground, alive, and without damaging the airplane, so why not relax? One quickly finds out in tailwheel flying that you never, ever relax. My first bad habit, which plagued me throughout the initial Waco experience, was relaxing back-pressure on the stick after landing. This, of course, removes weight from the tailwheel, increasing the chance of losing directional control on the rollout.

By midafternoon the wind had picked up to about 10 kt at 20 degrees off centerline, and I was doing acceptable three-point landings without scaring

Dave or myself. Almost four hours of flying in three sessions, with debriefs and some more ground school sprinkled in, allowed me to sleep well that night.

Tuesday, day two of flying, started with my wind-check ritual, and it proved to be another fairly calm day. Roy started with ground school, covering wheel landings. This, he explained, is where you land in a more level attitude, touching on the main wheels with some power, then bring the throttle to idle and the stick forward to stay on the mains. As the wing loses lift, you bring the stick back to place the tailwheel firmly on the ground.

Roy's theory is there is no reason for anything but full-stall landings in the Citabria, but the wheel landings were to prepare me for the Waco. Roy said that you would use wheel landings in strong gusty winds close to straight down the runway, or in situations when you need a longer final, requiring power. These were pretty easy for me, much like the approach in a turbojet aircraft where you maintain a reference speed during approach, or like a glassy-water float-plane landing. The hardest part, again, was getting used to pushing the stick forward, when all of us landing tricycle-gear airplanes flare with the yoke coming back.

By midafternoon on day two I had logged another four hours. Since most of our work had been on the grass, we made a few hard-surface landings and Dave pronounced me a tailwheel-endorsed pilot. When he asked if I

wanted to take the Citabria around the pattern myself, I declined. Two solid days of flying, and more touch and goes than I can count—I was beat!

When I opened the curtains for my weather ritual on Wednesday, day three, I saw it was overcast and the wind was going to be a factor. Wouldn't you know it? This was the day I was to move up to the big one, the UPF-7—not our UPF-7, which was still undergoing restoration, but a customer airplane available to Roy. Rather than demonstrating my prowess in getting into the pilot seat like a seasoned open-cockpit pilot, I spent the first part of the day in an American Champion Adventure (7GCAA). At 160 horsepower, with a fixed-pitch prop, this is the big brother to the Citabria I had flown the past two days. It was like moving from a Cessna 150 to a 182. The two airplanes weigh the same, so the extra 42 hp is really noticeable.

Dave put me in the backseat of the Adventure, even though it is usually flown from the front cockpit, which has all the instrumentation. Dave then made sure his arms and shoulders covered any view over the nose, forcing me to get used to not having any forward visibility on takeoff and landing. I had been warned that the hardest part of the Waco experience is flying from the backseat. In final landing and initial takeoff attitudes you effectively have no forward visibility, and it is necessary to perform both maneuvers by judging everything from the sides of the aircraft. The Adventure exercise was designed to

Tailwheel lessons included flights in an American Champion Citabria 7ECA trainer and this Adventure.





simulate that experience and practice getting cues from the right and left. We also worked on Waco traffic patterns, which basically call for pulling off the power abeam the numbers on the downwind leg and making a half-circle turn to roll out on short final. This allows you to keep a constant view of the runway in the turn, and, hopefully, be perfectly lined up on the centerline for the flare when you lose all forward visibility.

By midmorning Dave felt I was ready for the UPF-7. We did a comprehensive walkaround, and I donned my helmet and goggles, learned the start procedure, and got my first chance to fire up the Continental 220-hp radial engine. What a huge airplane this was in comparison to the tailwheel trainers. Starting our taxi toward the grass runway I realized the Waco was unlike any other airplane I had ever flown.

The taxi took great caution and footwork. With absolutely no way to see over the nose, S-turns were needed to clear the path ahead. But the moment I started the turn it was time to apply opposite rudder to arrest the movement from going too far in one direction. All of my initial training was on grass, and I quickly learned how much the grass dampens and cushions a crosswind landing made with a slight crab angle. Never in my life did I think I'd be begging for grass strips.

What a sensational experience as we departed for the first time, stick in my hand, wind in my face, and the UPF-7 vibrating and lumbering off the grass runway. Time once again for airwork consisting of slow flight, stalls, steep turns, and experiencing at altitude the landing angle of attack.

The morning finished with some full-stall landings on grass, and with every passing minute I was enjoying the learning experience more and more. It wasn't long before I felt I was controlling the airplane, not vice versa.

We broke for lunch in town with the mayor of Owatonna, a couple of state politicians, and local businessmen. I was taking advantage of Roy's skill as an instructor, so it seemed only right that he could use me as the AOPA president to extol the virtues of the local municipal airport. But this was vacation for me, and I must admit my mind was on that big red taildragger biplane.

After lunch we returned to more touch and goes, with a chance to try

wheel landings. (I was still uncomfortable with pushing the stick forward after touching down.) They felt pretty good except, as both instructors reminded me, there were some situations in which the CFI couldn't save a bad landing, so it was important for me to recognize a botched procedure. Other than converting a bounced wheel landing to a full stall (three-pointer), the only option was to go around. Feeling pretty good about all we had done that day, we finished up on the hard-surface runway.

Things didn't go as well there—no

margin for error in the touchdown attitude. After the humbling experience of a not-so-good landing on hard surface we quit for the day, and I had my first "down" moment of the week. Things were going so well; why was it so difficult on the concrete?

Thursday, day four, Roy decided to work on two important points: dancing feet on those rudder pedals and stick full back until I stopped. His one takeoff demonstration of footwork was just what I needed. Being a passenger for a moment, I wasn't comfortable with his rudder pedal work. That was



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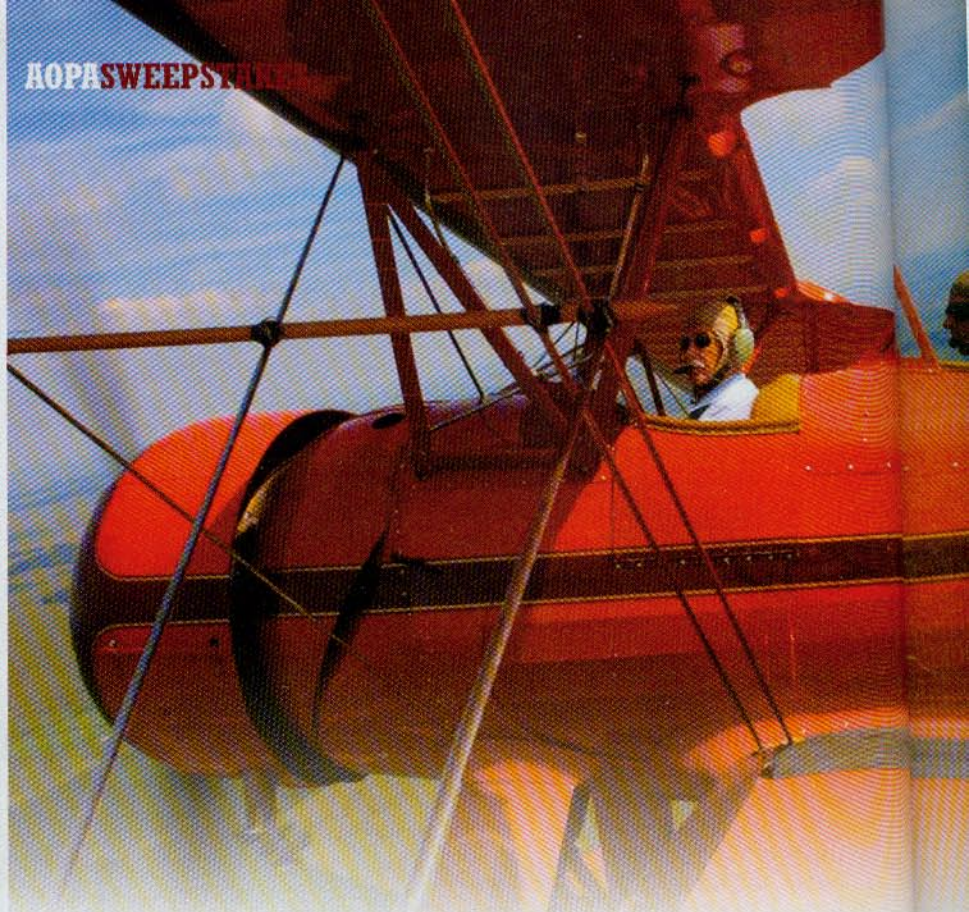
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## AOPA SWEEPSTAKES



my problem. I was trying to be the pilot who made such small, indecisive rudder pedal movements that my passenger wouldn't notice. It was instantly apparent you don't trade passenger comfort for the wild runway excursions that result from recognizing drift too late. I addressed my second problem on my own, saying to myself on every subsequent landing, "Stick in the gut, and hold it there."

Dave took over again, while Roy went back to the restoration of the AOPA sweeps Waco, which will have a 275-hp Jacobs engine with a constant-speed propeller. The best thing about the added power is you'll be off the runway faster, meaning less blind directional control and rudder work. We finished the morning with what seemed like two dozen touch and goes. I was definitely getting the hang of it, but still feared going back to a hard-surface runway.

Roy took over after lunch for the final-phase checkride, which in the syllabus is labeled "Block 4—Hard-surface runway work." We went to an airport some 20 minutes away, and for the first time I got the joy of a short cross-country trip, away from the traffic pattern, flying along at 700 feet, and experienc-

ing that IFR others have talked about—I follow roads.

All the way over I listened to the AWOS at the destination airport, realizing that the wind plays such a role in flying an airplane like this. When we arrived, the wind was about 8 kt and 10 to 20 degrees off centerline. My landings were very acceptable to Roy, and if I do say so myself, I was also pleased.

When Roy indicated that we should return to Owatonna, I knew I had conquered not only the taildragger, but also flying a classic antique trainer.

Friday, day five, two instructors signed my logbook "we find him to be proficient to act as PIC in the Waco UPF-7 aircraft." I had only one hurdle left. AOPA Pilot magazine's first-class photographer Mike Fizer would spend this day shooting the pictures that accompany this article. Fizer envisioned a shot looking into my face from the front seat with the ground and sky behind me. Since the UPF-7 front seat holds two people (well, almost), I was comforted by the fact that Dave or Roy would ride along with Mike. But Roy would have no part of this. "You take him up," he confidently said, "and get the shots you need."

Well, it was now or never, and I quick-





With Rare Aircraft's Roy Redman in front, Boyer manages the Waco's powerful controls like a "real" taildragger pilot.

ly assessed that Mike must be the bravest employee at AOPA, or he didn't want to embarrass the boss. We used the grass runway—I'm no fool. To my surprise and amazement, it was the very best landing of the week. The mains kissed the grass as the tailwheel touched down, and Mike told everyone later he wasn't sure when we touched down. (Or was he merely trying to schmooze the boss?) No matter. This was the way to end a fantastic week of a different kind of flight training and a truly memorable kind of flying.

If you are the AOPA member to win the Classic Waco UPF-7 at the end of this year, don't be surprised to see me land and taxi up with the key to your new airplane. And if you are a lifetime tricycle-gear pilot like me, know that you can convert in a relatively short time.

And the next time a pilot starts telling me, "You're not a *real* pilot..." I'm going to interrupt and proudly state, "Enough about flying tail-draggers—I *am* a real pilot!" **AOPA**

**i** For more information about the AOPA Centennial of Flight Sweepstakes Waco UPF-7, go to AOPA Online ([www.aopa.org/sweeps](http://www.aopa.org/sweeps)).

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