



I for two

... or fun for one

Budd Davisson

For a farm kid from Oskaloosa, Iowa, Erik Edgren has certainly led an interesting aeronautical life. And, if he has anything to do with it, he and his Steve Givens-built clipped T-craft are about to make it even more interesting. It's been a long time coming.

Erik says, "I lived on the family farm and Dad had a Mooney and a BC-12D Taylorcraft. So, it was only natural I'd learn to fly. In fact, Dad said that I spent so much time flying with him, that I was ready to solo by the time I was 8. Dad even built me a seat and rudder extensions so I could see out while controlling the airplane."

A chance flight with Dick Willetts, a local air show legend, set much of the direction for Erik's life.

"Dick was one of the smoothest air show pilots you've ever seen," Erik says. "He did a comedy Cub act in which he'd work it right down to where the airplane had grass stains on the wingtips. When I was 13, I went for a ride with him and that's what got me started on wanting to be an air show pilot. He was, and is, my hero. And he's still at it. He's 82 years old now and still a wildly active pilot."

"Dad taught me spins," continues Erik. "And, when I was a stupid, bulletproof teenager, I taught myself acro in a stock BD-12, [with] a copy of *Conquest of Lines and Symmetry* tucked under my leg. I was a damn fool, and I definitely don't recommend it."

Erik soloed, got his certificate, and then did something a little unusual. He explains: "I bought a clapped-out Cessna 310 with bad motors for a song. I rebuilt the motors with help from an IA friend (Bill Patterson), and worked on getting all of my ratings. That winter, which was 1993, was a particularly cold one in Iowa, and I was trying to pay the bills by working at the local FBO as an instructor/ramp rat/toilet cleaner. I answered an ad from North AmErikan Top Gun, where Bruce Moore was looking for another pilot to work into his T-6 ride business. He was working three airplanes and based in Florida. Considering I was freezing to death in Iowa and here was a chance to fly T-6s, there really wasn't much doubt that I'd take the job, if offered."

Erik left the wind-driven snow of Iowa for the sun and surf of St. Augustine, Florida, although he wound up in Michigan with NATG on the road, where he hopped rides in T-6s.

"I started looking around for work. I went to interview for a job flying DC-3s, but that didn't work out. However, right next door was a flight operation flying Learjets and Hawkers, and one of their pilots had just quit. So, for the next two years I got OJT in the right seat of a Lear."

Although the exotic hardware was interesting, it had turned flying into hard work and taken the fun out of it, so it was back to the farm, where he could fly how, and when, he wanted. Then another winter rolled around.

"... I quit flying to concentrate on my new family and farming. I thought I was doing pretty well until a friend dropped by to take me flying."

"This time I went to Livermore, California, to teach acro, and while I was there, Bruce Moore called and wanted me to come fly T-6s for him again, which turned out to be a very fortunate thing: the very first passenger I hopped had a beautiful girl with him. And I've now been married to that beautiful girl, Stephanie, for 12 years."

Okay, so now a young guy who has been playing with fun airplanes gets married. We all know the next chapter in this story, don't we? He had an I'm-married-now-and-have-to-be-responsible attack of conscience and sold the Pitts he had been air showing.

"Well, that's not entirely the truth. I wasn't being *that* responsible. I was flat broke and the Pitts had cracked spars, so basically I quit flying to concentrate on my new family and farming. I thought I was doing pretty well until a friend dropped by to take me flying. I had really been looking forward to it, but he had to leave because he had someone else with him, and I immediately starting moping around the house. Finally, Stephanie couldn't take any more. She cornered me and said, in no uncertain terms, 'I want you to go out and buy any damn airplane you can find and start flying again!' How's that for a great wife?"



Mike Steineke



Reggie Paulk

Photos of his wife and son serve as, "Don't do anything stupid gauges," according to Erik.



Aaron Lurth

Erik puts the Continental O-200 through its paces, but keeps the engine compartment spotless. RIGHT: Erik Edgren (right) plans to fly his Clipped 'T in air shows.



Aaron Lurth

Building a Clipped T-Craft, Steve Givens style

There are basically two recognized styles of clipped T-crafts: the Swick and the Cole conversions. The Swick is named for Jim Swick of T-Minus-Two fame, and the Cole is named for Duane Cole, the universally recognized master of small-box aerobatics.

To any who saw him fly, Duane Cole was an incredible change of pace. Most people are used to growling, roaring, snarling aerobatics with ever-increasing noise and altitude gains. Duane never hit more than 120 mph or more than perhaps 800 feet above the ground. He would do his entire show dead in the middle of air show center. At Oshkosh, for instance, wouldn't even come close to the end of the runways. He actually had to extend his show to make sure it covered the entire crowd line, since he could do his routine among the middle three taxiways.

Those are the kind of aerobatics Steven Givens was thinking about when he decided to build a clipped T-craft. But his would be neither a Swick nor a Cole conversion; it would be a Givens conversion.

Steve started with a 1939 fuselage. "That was all that was left after a high school trades class stripped it to use the parts for a homebuilt project," he recalls. Next, Steve found a set of stock T-craft wings that had been mangled in an accident. He says, "The spars were broken, but I was able to salvage and reuse all but three of the ribs. I made all the rest of the fittings, the drag/anti-drag wires, root fittings, and anything else needed."



The wings became a combination of Cole and Swick—30 feet long, rather than the 27-foot Swick length—but using the Swick ailerons. Steve, who calls Anderson, Indiana, home, went with those ailerons because they were mass balanced and had servo tabs to lighten the stick forces. However, the control system itself was the cables and pulleys of Cole rather than the push-pull rods of Swick.

"A lot of my ideas came from spending some time at the EAA museum with a tape measure and camera, learning all I could from Duane Cole's airplane they had on display. I also borrowed a set of plans for each conversion from a friend and studied them."

The landing gear on Steve's plane is mostly Swick, which uses bungees rather than being welded solid the way Cole had his set up. Steve planned on flying the airplane with a passenger and landing on unimproved grass strips. Rigid gear would leave a lot to be desired in those situations.

The stock rudder and brake pedals are used in a unique fashion because the brake pedals use cables to actuate master cylinders that are cleverly hidden inside the gear leg fairings. The cylinders are easily serviced through inspection doors located on the inside of each gear leg.

The engine Steve originally put in the airplane was essentially a stock Continental C-90 that Steve had balanced and ported more to make it smoother than anything else.

"I really loved that airplane," Steve says, "but Erik's last call caught me at exactly the right moment, and my resistance was down. I was maintaining three airplanes at the time and really wasn't flying the T-craft much. Now, of course, I have a massive case of 'seller's remorse.' I really miss it."

It sounds as if Erik is now going to be getting calls from Steve asking if he can buy it back, so the shoe is on the other foot.

Mike Steineke

Erik bought a Luscombe, which satisfied his flying urge, but then the T-craft crossed his path. He recalls:

"I'm totally family-oriented for 362 days a year, but the other three are mine to spend at the Antique Aircraft Association fly-in in Blakesburg. I was walking the line there in 1999, and I saw this gorgeous, I mean really gorgeous, clipped wing T-craft. I was totally smitten. The owner/builder was Steve Givens, and even though I put on my best sad puppy-dog face, he still said no when I asked him if his airplane was for sale.

"I wanted that airplane so badly, you'll never know. It was exactly what I wanted to start doing air shows in again. I figured the crowds have seen enough zip-rockets, Extras, Sukhois, and such, and something like Duane Cole's old slow-speed T-craft show would be unique.

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T-craft or no T-craft, Erik went through quite a few more winter cycles, 10 to be exact, where he'd relocate somewhere to fly, including doing aerobatic rides in a 450 Stearman.

"Even though I was doing flying a lot, periodically I'd call and pester Steve about his T-craft. That would let me do 450 Stearman type aerobatics at about a quarter the price so I could actually afford to fly it. The pestering went on for about 10 years, then last fall, I found Bud Duke's

An advertisement for the Southeast Aero EA330/LC aircraft. The top half features the word "XTRA" in large, white, stylized letters with red motion lines behind it. Below this, a red and white aircraft is shown in flight over a green landscape. The bottom right corner contains the text "330LC" in a stylized font. At the bottom, there is contact information for Southeast Aero and a list of specifications for the EA330/LC.

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Reggie Paulk

old clipped-wing Swick T-craft, and it was for sale. The Swick conversion gives 27-foot wings, while the Cole conversion, which is what Steven Givens had built, are 30 feet long. I was just about ready to buy Bud's old airplane, when I gave Steve one last call, and he totally surprised me by agreeing to sell it to me. Boy, am I glad I called!"

"The instant I started flying the airplane, I knew I'd made the right decision. Also, it's set up to be flown single-place in the middle of the seat or flown two-place by just sliding over, which lets me take Stephanie or John, my son, up with me."

Even the so-called perfect airplane isn't generally perfect, and so it was with the Steve Givens clipped T-craft.

"It had no inverted system at all, and to do the kind of aerobatics that I wanted to do meant spending a lot of time hanging from the belts, so I had to have full inverted capabilities. About that time we were coming into our season, and there was farm work to be done, so I wasn't going to be able to do the engine work myself. Giles Henderson suggested I talk to Greg Rhodes in Mattoon, Illinois. Greg is a machinist in addition to his day job, and he said he'd install a Christen inverted oil system at his normal hourly rate, which is quite reasonable. He installed an Ellison throttle body and a full Christen

system including the typical slobber pot and firewall-mounted check valve."

"I still have a few things to do to it," he says, "like changing out the seat belts to something that will actually keep me in the seat. And the prop is something I'm still struggling with. I got a composite prop from Mike Demuth, but it was pitched so fine that I ran into a nearly solid wall at 130 mph and needed to dive like a Stearman to get the numbers I needed for some of my maneuvers, like a vertical roll. Mike, however, is a stand-up guy, and he went above and beyond and refunded all my money."

"For a while I was using a borrowed Cessna 150 prop, which worked okay, but right now I'm hanging the O-200 out of our Luscombe on it, so I'll probably end up with some weight in the tail, as much as I hate it."

So, now that his dream plane is finished, what's next?

"That's easy: find the time to practice and practice a lot. My goal is to put together a unique comedy act, both power-on and dead-stick, and combine that with really good, Duane Cole style aerobatics. I want to stay right in front of the crowd and fly a tiny little box like he used to do."

It looks as if the next time the snow starts to fly, the aerobatic types at St. Augustine, Florida, can expect to see a little red airplane working its way south over the northern horizon. That would be Erik seeking out the sun and an empty aerobatic box. ☺



Reggie Paulk

A trim paddle instead of a tab or bungee provides powerful trim control.



Aaron Lurth