

Meticulous Iowa City pilot building ‘something to love’

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(Photo: Dick Hakes / Special to the Press-Citizen)

John Tvedte has a very good trait for a guy crafting a home-built airplane that will eventually take people he cares about aloft.

This Iowa City small-plane pilot is meticulous.

“Almost to a fault,” he admits with a grin.

For example, he wasn’t satisfied with the heft of the front landing gear fork that came with his Velocity XL airplane kit. So, he did the math and designed a lighter weight but stronger one he is sure will not snap if he ends up landing hard.

He reconfigured the engine oil cooler system using a scoop in the wing for more efficiency, fabricating his own fiberglass version in his rented shop at Eastern Iowa Airport.

He strengthened the plane’s framework in spots. He simplified the tangle of the wiring and cables. He customized his control grips.

In short, Tvedte has taken engineering tolerances throughout the aircraft far beyond the standards of the manufacturer.

That might be why he’s in his 14th year of building this plane.



John Tvedte’s Velocity XL under construction will have a 31-foot wingspan, carry up to five people and cruise at 200 MPH. It features a “pusher” configuration in which the engine and prop are behind the cabin, which John says is a cleaner aerodynamic design. (Photo: Dick Hakes / Special to the Press-Citizen)

“I figure ‘good enough’ just doesn’t cut it,” he told me recently from his shop where three other similar planes are also under construction. “My family is going to be flying in this plane — maybe this year.”

His Velocity XL is a fixed-gear model that will seat five passengers if some are small. It has a 31-foot wingspan, cruises at 200 miles per hour and will take John, his wife, Ann, and their 12-year-old twins, Kari and Matt, to Denver in less than four hours.

With a full 80-gallon tank, he and Ann can fly to Florida nonstop if they wish.

Unlike some other guys who build what the Federal Aviation Administration commonly calls experimental, home-built or amateur-built planes, John isn’t interested in the type of edgy craft he often sees at the huge Oshkosh air show in Wisconsin.

"The Velocity is fast, but it's more like a high-speed sedan," he tells me. "It's comfortable, safe and a lot more forgiving than other models."

"I'm very conservative — more mainstream," he says. "I've seen stuff at Oshkosh that I wouldn't climb into. I'm more interested in taking the family to Pennsylvania for some touring."

John and Ann first purchased the airplane kit about 14 years ago before they had children. They traveled to Florida to work on it with an expert tutor in the field for a time, then eventually brought it back to their Iowa City garage. They kept plugging away, but careers and kids had to come first.

John grew up in Orange City and earned a degree in electrical engineering from the University of Iowa. He and a partner founded Computer Solutions in Iowa City in 1986, a company that sets up computer networks for businesses and schools. His wife is business manager for the UI Hospitals and Clinics Department of Surgery.

Two years ago, he moved the plane to the Eastern Iowa Airport shop for the final stages. There he gets help and encouragement from a community of 30 or so expert amateur builders who are part of the local Experimental Aircraft Association chapter. He estimates there may be 15 home-built planes within the group.

"One guy's been working on his for 23 years," John chuckles. "The joke around this place is that when you are 90 percent done, then you've only got 90 percent to go."

Although it can be less expensive to build than purchase new, home-built aircraft are hardly cheap. John says he may have spent only about \$40,000 for the original kit but has plugged much more than that into the project over the years, not to mention thousands of man-hours.

But now, he is getting close. "We just ordered the last of the oil hoses for the engine," he says.

Once ready to fly, the FAA requires 40 hours of testing and a detailed inspection, including a review of his photos of building procedures over the years. John will then be certified to be a mechanic for his own plane, which was a big reason why he learned its workings inside and out.

And still, he will not rush anything.

"It's just not like building a car," he concludes. "In a plane, there's no pulling over to the side of the road if you have problems. You need to pay attention to so many things. You just want everything to be hooked up right."

John says his wife once told him early on to "build something you love."

It's clear he took her encouragement to heart.



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Dick Hakes is a semiretired newspaper editor who lives in North Liberty. He writes a weekly column for the Press-Citizen. (Photo: Special to the Press-Citizen)