

The New Glider-Trike: The Best Deal in Aviation



USUA President John Ballantyne flies an Experimental glider-trike over Los Angeles International Airport to demonstrate that a trike really can fly over congested areas. The photo was taken by Susan Martinez in a Quicksilver GT-500 flown by Jon Thornburgh.



Jon Thornburgh and student Mike Globensky fly glider-trike N425MT over Palos Verdes, near Torrance Airport.



John Ballantyne (left) stands next to the glider-trike in which he established a precedent in US aviation history. Instructor Jon Thornburgh (right) stands next to a Quicksilver GT-500. In the background is the FAA control tower at Torrance Airport, California.

There are thousands of people who would like to fly, but why for various reasons. Thirty years ago there were over 800,000 pilots in the United States. Today there are less than 650,000 even though the national population is much greater.

Why? Because the barriers to flying are many: the time and training, the increase in FAA regulations, the high cost of air ownership and maintenance, the closure of many airports, a exposure to liability lawsuits.

Despite the decline in general aviation, *ultralight* flying has increased. That's because ultralights are more affordable and less complicated FAA regulations than general aviation aircraft.

But there are significant limits to ultralight flying. Ultralight aircraft have FAA mandated weight, fuel and speed restrictions. You may not fly them in remote areas. You may not carry a passenger unless you are an ultralight instructor. You are not allowed to fly them at night. They are prohibited from many airports, even in rural areas.

How would you feel if you discovered that there exists a form of flying which combines the simplicity and joy of ultralight flying with the respectability and privileges of general aviation?

Wouldn't you be excited if you learned that you could obtain a Private Pilot's license in only 10 hours? Or a Commercial license in only 20 hours?

Suppose I told you that you could fly an ultralight-type aircraft you wanted—including congested areas and general aviation airports—and that you may carry a passenger, you may fly at night, and you do not have to adhere to weight and speed restrictions.

How would you like to purchase your own two-seat aircraft for \$25,000, and fly it for \$15 per hour? Wouldn't it be nice if you could take the wings and take it home with you, avoiding tie-down fees and storage costs? And it would be great if you could insure your aircraft at the same price and coverage as general aviation airplanes.

Does this sound too good to be true?

Well, it is true, thanks to a new avenue of flying made available. It's called a "glider-trike."

A "trike" is basically a large, power-assisted hang glider. A fuselage is mounted on a fuselage which carries one or two occupants, an engine, landing gear, fuel tank, instruments, and optional passenger seat. The wing is controlled by a pitch/roll bar, and has no rudder. The wing can be removed, rolled up, and carried on top of a vehicle, just like a hang glider. The fuselage can be towed on a trailer.

Trikes are the most popular form of personal recreational flying throughout the world, except for the United States. They are not certified in many countries as a "microlight," with manufacturing standard certification procedures. The 1997 movie, "Fly Away Home,"



Jon Thornburgh flies a glider-trike over Torrance Airport. Note the control column extension bars used for instruction in the back seat.



Thornburgh taking off from Torrance Airport, CA, with another glider-trike student.

trike which was used to guide migrating geese from Canada breeding grounds in the United States.

Though intended for local pleasure flying, some pilots have trikes for great distances. British pilot Brian Milton flew entire the world, over a period of several months. South African pilot Blyth and Oliver Aubert flew thousands of miles from South clockwise around the Pacific Rim to Africa. Other long distance include Colin Bodill, Dave McCauley, and Bill Fortney. Bill was in the May 2000 issue of UltraFlight Magazine (and continued featured monthly through December 2000).

Until this year, trikes have been flown as "ultralights" in the US, and have been subject to ultralight restrictions. Now "glider-trike" option, which opens up a whole new array of options for trike flying.

The glider-trike project is the culmination of two years of negotiation with the FAA by Scott Toland and yours truly. Scott is the Director of the Trike Wing of Aero Sports Connection, a national ultralight club. Scott was also the first US pilot to obtain an FAA pilot's license.

Scott and I convinced the FAA that trikes are becoming more popular in the US, and that trike pilots do not want to be permanently relegated to the ultralight category. The FAA agreed that trikes may be placed in the Experimental category, just as other homebuilt aircraft.

Although "Experimental" connotes a unique, one-of-a-kind machine, it is actually a well-established type of aircraft certification. Many kitplanes are Experimental, including high performance, expensive aircraft such as the Lancair, Glasair, and Velocity.

Since a trike is basically a large hang glider, the FAA has adopted the most appropriate Experimental classification for a trike is "glider." Actually, a trike is really a motorglider, but the FAA doesn't use the term "motorglider." The FAA refers to a motorglider as a "self-launching glider." The full designation on an experimental trike's Spec Airworthiness Certificate reads: Experimental—Amateur Built (self-launch.)

The FAA does not require a pilot's license to fly an ultralight aircraft. Flight time in an ultralight cannot be logged as FAA pilot time. A pilot's license is required to fly experimental aircraft; and when a pilot flies an experimental airplane, it counts as FAA flight time.

Since an Experimental trike is considered a glider (or motorglider), an Experimental trike pilot must have an FAA glider pilot's license, not a separate license for "motorglider.") The student does not receive training in a traditional three-axis glider.

The FAA allows a trike student to take all his training in an Experimental glider-trike, and to take his FAA flight exam in the trike. This is an extremely forward thinking decision by the FAA, and a decision that should be given to the FAA personnel who are responsible for the glider-trike project become a reality. They are Sue Gardiner, John Wensel, and Bob O'Haver, from the FAA office in Washington, DC.

The FAA minimum requirements are the same to become either a glider or motorglider pilot. The Private Pilot requirements are found at 61.109(f), and the Commercial at 61.129(f). The Private and Commercial requirements include provisions such as specific dual and solo flight time and a certain number of flights, but the basic minimums can be summarized as 10 hours flight time for Private and 25 hours for Commercial. Both the Private and Commercial require FAA oral exams, and a flight check. There is no requirement for a written examination.

Because the glider-trike project is so new, the only flight examiner at present time is Galen Fisher, of Hemet, California. Hopefully there will be more examiners throughout the country in the near future. The glider-trike examiner must have a unique combination of skills and must be a Designated FAA Examiner for traditional gliders, and also be experienced in trike flying.

We are fortunate that Galen was willing to participate in the project. He has been a glider examiner for many years at Skyline Enterprises, in Hemet. Since he is also an experienced hang glider pilot, Scott Toland was able to quickly qualify Galen in a trike. Last year, Galen gave his first flight check in a glider-trike, thus establishing a new chapter in the history of US aviation. The applicant was John Ballantyne, President of the United States Ultralight Association (USUA).

On May 30th, John took his flight exam for his Commercial glider certificate. A few days later, John set another first in aviation history by giving an additional flight check in a glider-trike to qualify for his glider license.

Although John took his flight exam in a glider-trike, any traditional glider instructor can also teach in glider-trikes if he is proficient in trike flying. For example, Jeff Reynolds is a traditional glider instructor at the Soaring school, Pleasant Valley Airport in Peoria, Arizona. Jeff also teaches at Kemmeries Aviation, a famous trike school at the airport. Therefore, Jeff is qualified as a glider-trike instructor.

One problem is that John Ballantyne and Jeff Reynolds do not have access to an Experimental glider-trike, so they don't have a machine in which to teach. With the newness of the program, John is currently the only instructor who has a glider-trike in which to give lessons. Hopefully, John and Jeff will have glider-trikes available in the near future.

My glider-trike is an Air Creation "Twin," with a Rotax 503 engine, equipped with dual controls, including rear seat steering with throttle, and extension bars on the control downtubes. It also has an intercom, ELT, and a transponder, although gliders are not required to have a transponder. See FAR 91.215(b)(3).

In September 1996, Greg Silva, an ultralight instructor and trike pilot at Kemmeries Aviation, was the first person to put a trike into the Experimental category. At present there are two other Air Creation glider-trikes: one owned by Frank Oyama in California, and another owned by Mike Jacober, of Arctic Sparrow ultralight school, Anchorage, Alaska.

Chris Haarhoff, from South Africa and now living in California,

recently certified his Aerotrike Cobra as an Experimental gli
Jacober, Frank Oyama, and Chris Haarhoff are all actively s
their FAA pilot licenses in their glider-trikes.

There are many ultralight trike pilots who would like to beco
certified; plus many fixed-wing aviators would like to transit
trike flying. Thanks to this new program, there may someda
hundreds of FAA certified glider-trike pilots throughout the L

For those persons interested in glider-trike opportunities, vis
site dedicated to this subject: www.egroups.com/group/Exp

Other trike web sites include Chuck Goodrum's www.trikes-
John Olson's excellent trike video may be ordered at
www.adventurep.com. Details about Brian Milton's flight arc
world can be found at
<http://aviation.miningco.com/hobbies/aviation/library/weekly>.
See www.nowchallenge.com for Colin Bodill's adventures. I
at www.aerotrike.co.za.

For more information contact
Jon Thornburgh at
JonThornburgh@pocketmail.com;
Scott Toland at stoland@aol.com or
John Ballantyne at johnusua@aol.com or USUA Headquart
9100.

*Jon Thornburgh is a periodic contributor to UltraFlight Magazine
an FAA certified flight instructor and an ultralight instructor.
articles for UltraFlight may be seen at www.cyberskies.com.
Jon's voice mail number is 800-971-8710.*