

Quicksilver

like hotcakes and bagels

BY BERT MOONEN



Quicksilver GT500-912



The High-Tailer which evolved into its original Quicksilver design



Dave Cronk flies the original Quicksilver No. 1

In the US, back in the days when ultralights were in their infancy, pioneers like Dave Cronk and Dick Epper began experimenting with rigid wing hang gliders. They were dramatically different from the pointy-nosed (high aspect ratio) Rogalos which dominated the hang glider scene at the time. Cronk and Epper's design had a rectangular wing and a conventional tail, complete with a horizontal stabiliser and a movable rudder. (The two men were widely considered at the time to be hillbillies with a death wish.)

Epper decided to set up a business to promote their design, which turned out to be a good move, because with good marketing, the business leaped ahead of the garage-builder crowd and never looked back. Cronk in his Quick C-fast became a legend around the traps. The C-model, with its crisp, all-white Dacron sail-cloth wings and tail, set off by a sparkling airframe made entirely of bronze-anodized aluminum tubing, always drew admiring glances from the crowd.

This was the early weight shift Quicksilver (which, by the way, you can still get parts for). That iconic wing/tail design had excellent performance, but it also had some shortcomings: It was too stable and didn't turn well.

The company redesigned the tail and emerged with the Quick A. It used the same 30-foot-span, 4-foot-chord wing. But in place of the twin vertical tails was a horizontal, A-frame tube arrangement angling back from the trailing edge. A cable-braced, fixed horizontal stabiliser and rudder finished off the new fuselage. The rudder was moved by lines fixed to either side of the simple plastic swing seat.

Because the trailing edge of the rudder's C-shaped frame was unsupported, the rudder distorted a lot. It was still effective at yawing the tail enough for the dihedral of the wings to come into play and effect a turn. A stiffer D-frame rudder solved that problem.

The designers kept tweaking. Load testing uncovered weakness in the trailing edge, which was fixed.

The B model debuted, ready-to-fly (for all of \$965, twice that of a Rogalo) and sales took off.

Before long, a new C model debuted. It had an increased span of 32%, a deeper chord (to 5ft), a larger tail and the airfoil camber was reduced from 12 to 8 per cent camber.

For a few years in the 1970s, the Quick was the top performing hang glider. In time, other rigid wing designs, including the Icarus II and V. Manta's Pterodactyl/Pledging and ultimately Rogalo flex-wing designs themselves, began to challenge, then eclipse Quick's reign.

Epper saw the writing on the wall and decided it was time to introduce an engine to their creation. While some die-hard souls hung power units on flex wings, the Quick's conventional aluminium frame offered the best platform for motorised flight.

The company had changed hands many times over the years and a new group of investors figured a powered Quick would sell like hotcakes.

A Texan car salesman bought the company and renamed it Quicksilver, and yes they did sell like hotcakes. The first powered Quicksilver was the model E.

32 SPORT PILOT • FOR RECREATIONAL PILOTS

FEATURE



Quicksilver Sport 25



Quicksilver GT400



Quicksilver MXL2

"The designers kept tweaking"

Quicksilver

like hotcakes and bagels cont.

It sported the classic weight-shift sling seat, but now included a cranky McCulloch MAC-101, 12hp engine with a V-belt reduction drive, pusher prop and all of 1.7 gallons of fuel. It still had to be foot launched (the FAA hadn't yet evolved the regulations to accommodate wheel launching).

The first production powered Quicksilvers had a much more reliable 15hp Yamaha engine. There was a spring-loaded throttle on a down tube, but the landing gear was still the pilot's legs. It cost \$3,995, a tidy sum in those days, but for a complete airplane. It was a bargain. And you didn't have to carry it to the top of a hill to launch. Before long it became clear the Quick would surpass even the company's original vision — more than 15,000 sold and still counting.

New models were developed, including the Quicksilver MX, which evoked the company's desire for three-axis control instead of simplified two-axis (weight shift for pitch, rudder for yaw-roll-coupled banking). The first MX (for multiple axis) had a movable elevator for pitch and, because pilots asked for true three-axis control, they tried spoilers on top of the wing. It was not really 3 axis in the true sense, because the spoilers took lift off the wings.

Next came ailerons and that did the trick: The Quicksilver was now a three-axis aircraft. The new model, the MXL (L for aileron), sold like hot bagels.

Quicksilver transformed its success into an expansive dealer network and new models. For training the company created a two-seat Quick. These existed in a quasi-legal grey area. They were too heavy for the ultralight category and carried two people. The FAA let them pass as trainers, but many pilots actually used them for two-person recreational flying.

When the sport pilot rule came out in 2004, two-seaters could be grandfathered in as experimental light-sport aircraft (E-LSA), with proper inspection and some paperwork. Two-seater ultralights could then be registered as experimental amateur-built (E-AB) and used for ultralight training...as long as dealers didn't charge for it.

Quicksilver then introduced the GT line, designed by Dave Cronk and Tom Price. The enclosed cockpit, double-surface-winged, three-axis single-seat GT 400 was a legal ultralight. The later two-seat GT 500 was too heavy and fast for the FAR 103 category. It was offered as an E-AB kit or ready-to-fly airplane (Sportplane Class) in the new FAA category of Primary Aircraft.

The company was sold again in 2012 to Will Escutia and Dan Perez. They renamed it Quicksilver Aeronautics. Escutia is the president; Perez oversees operations at Quicksilver HQ in Temecula, California. The new management team has big ideas for the future. They inherited a company only producing kits and struggling. In less than three years, their re-energised Quicksilver Aeronautics has made significant strides.

The company's Sport 25E two seater was recently awarded S-LSA cer-

tification in the US.

"Our principal idea for going the S-LSA route was two-fold," says Escutia. "We want to give non-builders a ready-to-fly, affordable airplane. And we want to grow our dealership network by giving them an aircraft they could legally train in and be able to charge for that training. We also want to help them increase profits by providing them with E-LSA kits that they can either sell outright or build for their customers."

E-LSA kits do not have the same restrictions as E-AB kits: They can be built almost entirely by a dealer. The Sport 25E-LSA will be available in Australia through Quicksilver Aircraft Australia from around June.

As for me, I started to get interested in learning to fly about the same time Quicksilver introduced the MXL.

I looked at what was available in the ultralight market and Quicksilver kept coming to the top of the list. The dealer at the time was based in Forster in NSW and was selling probably only two or three kits a week (I wish it was like that today). I didn't go ahead with my dreams to buy one then. It wasn't till I turned 50 and the kids had all grown up and moved out, I realised I had the spare dollars to follow my passion.

Despite the intervening years, my desire for Quicksilver hadn't waned. The first aircraft I bought was a GT400 single seater, which I put many hours on. Later I graduated to a two seat GT500. When the chance to represent Quicksilver in Australia came up, I grabbed it and the relationship has grown stronger since.

Quicksilver was one of ultralight's pioneers. With its new models, new attitude and vision, Quicksilver is also well placed to be central to its future.

