

MEET THE MEMBERS



Mike Roper with the VariEze he shares with Steve Brown

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This month, we meet **Mike Roper**, a composite guru who enjoys Rutan designs in particular, and has never lost his love of aeromodelling

What was your job?

I like the 'was', I must be showing my age! I worked in the City as a cashier but retired more years ago than I care to remember.

What started your aviation interest?

I was a typical lad growing up during and after the war who was influenced by our RAF heroes and built my own model gliders and aircraft. In 1946 I joined the Sidcup branch of the ATC but there were no flying opportunities, however I was told it would stand me in good stead for National Service. And five years later I was sent into the Army!

After demob I was still interested in aero modelling and progressed onto the early remote controlled aircraft and ultimately flew at national level.

How about full-size?

Well that happened almost by accident really. I was at the Biggin Hill Air Fair one year with our model club to give a display during the lunch interval and saw a display by Fournier motorgliders. I was building scale models at the time and thought it would make a nice subject, so I approached Sportair, who were actually based at Biggin, and they were kind enough to agree that I come over and measure the aircraft up. They also offered me 50% discount on a trial flight, which I took up a week or two after the show.

Were you hooked?

I guess my RC skills helped because I found that I could handle the aircraft reasonably OK and, usual sales patter no doubt, the instructor reckoned I'd have no problems gaining a licence. I went on to get my PPL but usual

problem – I couldn't really afford to fly often enough and I didn't feel that taking passengers flying with such minimal annual experience was a safe thing to do so, as so many pilots do, I dropped out and went back to aero modelling.

What brought you back?

Well, one day I was helping a new chap get to grips with a model when I saw a VariEze fly over and it intrigued me to the point of finding out what it was all about. I discovered that it was Don Forman's aircraft and he flew it from Biggin, so I went and met him and found that many of the build skills were directly transferable from modelling. I had been working with foam cores for years. Don then put me in touch with Dave Machin who was about to start building a LongEZ.

Did you consider building your own Eze?

Yes, I bought a set of plans and put some money aside for a project but just before I jumped the Big Bang happened in the City. The firm I worked for, a firm with a 200-year heritage, ceased trading so in such uncertain times I decided it would be foolish to spend the money on an aircraft I might well not be able to afford to operate. If I had learned about the PFA a decade earlier, when I still had a current licence, I have no doubt I would have gone on to build my own Eze.

Where did you go from there?

Having met Dave, I helped him build two Long-EZs and a Cozy. Later I also helped Don with his twin-engine Defiant, which is now in the US. The Eze set is pretty close knit really, we have quite an enclave here in the south east so before long I got involved in helping

Steve Brown finish off his VariEze. The good thing about all this building wasn't just that I enjoyed working with composites but I also got some flying in but I, regrettably, never bothered about getting my licence back.

I believe Steve came to grief in his Eze and built another.

Yes that's right. Unfortunately he crashed into a wooded area on the approach to Bembridge not long after he started flying it. There was virtually nothing salvageable but he survived relatively unscathed (he broke an arm) because the beauty of a good composite design is that it will absorb energy as breaks up and leaves the pilot in a safety cell type cockpit.

Steve decided he wanted to start again and we built our current aircraft G-VEZE, over what turned out to be quite a protracted period, as Steve has a busy job and a young family. Don and I built the huge Defiant in just over two years – the new VariEze took eight but the beauty of our previous experiences meant we could incorporate a number of improvements.

How does 'ZE differ from the norm?

The major benefit of past composite experience is that you learn how to build it light. Many first timers use too much resin, and also do not get their cores perfect before laying them up, resulting in excess filler being required. The end result is that the aircraft turns out heavy, but our Eze is a very light example. We also used a different, stronger foam which meant our fuel tanks could have about a half-inch wall thickness rather than the typical two inches with urethane. That gave us quite an increase in fuel capacity.



It's hard to believe the VariEze design is almost 40 years old. This is Mike and Steve's G-VEZE

We've also added a few aerodynamic improvements and readers may recall Steve's electric carb heat article for the Continental O-200. We have subsequently adopted the C85 piston modification that gives us 108hp, and have just recently fitted Steve's home-brewed electronic ignition system (replacing one of the mags) and although we haven't flown it yet it has definitely smoothed out the engine.

How does your VariEze perform with these mods then?

If you are going for economy then it will do 120kt at 12 litres an hour. Flat out it does just over 200mph but the fuel burn is up around the 25lph – we tend to fly somewhere in between.

Range wise we've got over 1,000 miles, we could do Biggin Hill to Rome in one leg.

You're clearly a composite man, Rutan designs in particular

Yes I suppose that's true, and in fact I very much enjoyed helping Gary Smith, who you featured last month, run a composite course for the LAA ET educational programme recently because the materials and processes are not generally well understood. From a construction point of view I think they have tremendous advantages, not least of which is rapid prototype build and testing. The tragedy is that Burt Rutan moved away from mouldless composite homebuilding and into the commercial aircraft world too soon, and nobody has ever really filled the void he left. I believe that with further development of the Eze concept we could have arrived at a two-seat, efficient high-performance homebuilt similar to the VariEze that would tolerate being flown into and out of the shortish grass



strips that are becoming the norm for many LAA members' operations in the quest to cut costs. Maybe in his retirement he'll rise to the challenge, we can but hope

What of the future, do you have plans for another project?

I think 'ZE will be my last build but you never know. We still have some ideas on how we can improve the aircraft further. We have recently succeeded in getting an increase in max all up weight of 200lb, which included having the aircraft flown on a number of test flights by LAA Chief Test Pilot Dan Griffith, who incidentally was very complimentary of the aircraft. This was the first phase towards

fitting under-wing streamlined luggage pods – internal baggage space on the Eze is rather restricted. I've also always considered that the main gear could do with cleaning up aerodynamically to reduce drag, and Steve and I have some ideas on that we would like to pursue.

Other than that I am back into radio-controlled model making and flying again and am just finishing off a Zlin that I scaled up from a drawing in an old model magazine. I started on the fuselage 30 years ago before I got into Rutan's full-size machines but it is now almost complete and I'm looking forward to going up to the model club's field and seeing how it flies. ■