

# microlight

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FLYING



*inside*  
Ladies' week  
Scottish delight  
Icarus Cup

PART 103, the regulation for ultralight vehicles in the United States, celebrates its 30th birthday this year. Which gave me another chance to feel old.

It helps a bit if I start counting from when I first owned and flew an ultralight, in 1993, the first year I went to Oshkosh.

This year the first thing you notice is that the overall event, rather than celebrating 30 years of ultralights, featured a celebration of the 75th anniversary of the Piper Cub.

Which just hurt a little more, because after doing a little more maths, I now realise that I've been on the planet longer than two thirds of the existence of the Cub. Will this ever end?

Cessna's big light-sport announcement at AirVenture was that it is no longer going to produce the Skycatcher as an S-LSA. This is quite a change from the introductory announcement of the aircraft at AirVenture six years ago, when it instantly became a dominant force in the then-nascent S-LSA industry.

The change, while significant in many ways, will not change the aircraft, where it is built, or who can fly it. At least not in the USA.

Team BRP was there to talk about the Rotax 912iS, now certified for use in S-LSAs. Fuel savings claimed by Rotax have been confirmed by aircraft manufacturers, which of course is a nice benefit. The lower end of the product line is getting less attention, though – when asked about Rotax 447 and 503 engines, the answer was that the two-strokes were never officially discontinued. However, officially or unofficially, the only region with available stock is Mother Russia. One US supplier told me that they bought what they thought would be a six-year supply of 503s, but had sold the lot within six months of the announcement that the production line was mothballed. With the growth of the paratike market and lighter airframes, I believe there is still a market niche for those smaller engines.

## Innovations

The Electric Lazair was again shown by Dale Kramer, this time with improved batteries, improved charging, and better range.

Still on the electric theme, Randall Fishman appeared with a new project, this one even sleeker than his last one. The ElectricFlyer-C is based on the Czech-built Song, a single-seat, carbon-fibre composite motorglider, normally powered by a Bailey 200. Endurance is expected to be 1-2h, but then again, it is a glider!

The German company E-volo was there with what else other than a VC2 Volocopter, the successor to the VC1. This brand new machine looks a lot slicker, but still flies using lots of individual rotors powered by tiny electric motors. Not only did they have a new model to show, but they were talking about producing both

an ultralight version of the aircraft as well as a two-person light sport version.

The guy I found most interesting was someone who has been working hard to solve a problem he was told couldn't be solved. Christian Hugues thinks he has largely solved the inefficiencies and danger caused by wing tip vortices, by eliminating the vortices themselves. Space doesn't allow me to go into the whole thing, but after two years of tests, seven designs and 28 wind-tunnel prototypes, he's built wing-tip devices for a Vans RV4 and an RV8 which in both cases increased the efficiency of the aircraft.

The devices look like a tube attached to the wing tip, but there is a lot more to them than that. They're made to blend into the shape of the wing itself and the shape guides the air into the tube, where spiral vents are used to release some of the overpressure.

I am certainly rooting for Mr Hugues. He seems like a very sincere guy who is intent on solving a basic problem in aviation by going back to first principles and treating it as an engineering issue. Perhaps some day all wings and even props will have little tubes on the ends of them, and you will have read about it here first. □



Above Christian Hugues with his Minix vortex and induced drag alleviator

### Other photos

- 1 The Sea of Cubs was as promised (photo: EAA)
- 2 Nope, that's not a Bailey hiding under the hood this time – this motorglider is fully electric. Just finished before AirVenture, it's a nice, clean design
- 3 This yet-unnamed airplane from Just Aircraft features new wings that the designers have not yet been able to stall, thanks to automatically deploying leading-edge slats
- 4 Quicksilver's GT500 is slated to be the first Quicksilver model to be certified as a Special Light Sport Aircraft
- 5 Oshkosh ends with a bang. And why not?

