

UK distributor Allan Arthurs invites fellow UK glider pilots to experience the Silent 2 Electro and give their views on 'soaring the future, today'



# TOMORROW

**H**AVE been a keen advocate of the Front Electric Sustainer (FES) since it was first announced; the combination of this with a modern lightweight airframe giving the ability to self-launch seemed to me to be the perfect marriage. So it was full of enthusiasm for the Silent 2 Electro that I made my first visit to the Alisport factory in Cremella, Italy, back in early January 2014.

What I found was even more remarkable; a small company of like-minded people, each hand picked for their individual passion for sport aviation! Alisport SRL is no newcomer to the field of aviation; the company has been in business for over 20 years. It started with an innovative STOL aircraft called the Yuma, but it was not long before it turned

its attention to the production of a range of exceptionally light, self-launching sailplanes, culminating in the Silent 2 Electro, built for the new FAI 13.5m Class. Every component of the glider is built to the very highest standard and everything is incredibly light. I returned home with the UK agency agreement in my pocket and a big smile on my face!

My next visit to the factory coincided with the first Italian FAI 13.5m Championship, held at Alzate Brianza, near Lake Como in April/May 2014. The competition was dedicated to Leonardo Brigliadori, former world champion and strong supporter of the FAI 13.5m Class. It was a race that exceeded all expectations, both in terms of the competition itself and in the performance of the gliders. Weather conditions



# V'S WORLD?



> **SAILPLANE & GLIDING**  
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> **FEATURE**  
SILENT 2 ELECTRO



FES control unit

Below: Andy Aveling was particularly impressed with performance in the speed flap setting



Below: launch grid at the first Italian FAI 13.5m Championship, Alzate Brianza, in April/May 2014



⚡ were variable, but under the expert guidance of competition director Giorgio Ballarati the competitors were able to make the most of every day – with interesting tasks of between 170km and 320km.

There were seven Electros in the competition. It was impressive to see these aircraft self-launch, all within seconds of one another, to seek out the first thermals of the day. It later emerged that there was a secondary unofficial competition between the pilots, to see who could preserve the most battery power.

Another remarkable aspect of the event was undoubtedly the performance of this nimble new breed of sailplane. The average speeds achieved over the five competition days were very respectable, even as high as 114km/h. The winner was Riccardo Briigliadori, in a Silent 2 Electro to first place in the SSA Club Class Nationals in July, in Texas, USA.

Back in the UK, the government Red Tape Challenge was the topic of debate, and the CAA had already announced a public consultation on its proposal to deregulate (for airworthiness purposes) all UK-registered single-seat microlight aircraft. With a MTOW of 300kg (or 315kg, including a Ballistic Recovery System) and a stall speed of no more than 35 knots, the Silent 2 Electro fits perfectly into this category – now known as Single-Seat Deregulated (SSDR).

While there was never any doubt about the fact that the aircraft would meet the requirements for SSDR, the fact that this particular microlight aircraft has the characteristics of a glider proved to be a

further challenge. It was largely through the good offices of the BGA that this matter was resolved and on 13 June 2014 SSDR was announced and self-launching sailplanes included! This effectively means that the Silent 2 Electro is not subject to any regulatory airworthiness regime and maintenance is a matter for the pilot – in accordance with the manufacturers' recommendations.

The next big hurdle was crew licensing. Having been being classified as a microlight effectively meant that pilots were required to have a PPL(M) to fly it. Once again the BGA came into play, successfully arguing that this particular microlight exhibits the characteristics of a sailplane and that it would clearly be in the interests of all concerned that it be flown by suitably qualified glider pilots. Thus it was that as of a further CAA announcement on 19 August 2014, pilots holding either a PPL/PPL(M) or a SPL/LAPL(S) with a Self-Launch Endorsement may fly the Silent 2 Electro.

I waited a long time to fly the Silent, but all good things come to those who wait. However, as much as I'd love to relate my own experience, I have invited several other UK glider pilots to share their views:

**Andy Aveling:** I contacted the first thermal at about 800ft, so it seemed like no time at all before I was ready to dispense with the power. Between thermals, the flap/trim system worked well, very similar to a conventional flapped aircraft. I was particularly impressed with the performance in the speed flap setting. The glider settled nicely at 80+ knots and delivered a very flat glide; it didn't feel like flying a small glider. After an hour of soaring in a brisk wind, I returned for a landing. The airbrakes were powerful and responsive, making for easy approach control. Landing was straightforward and, after a sensible ground run, I powered-up to complete a touch and go. Post-flight analysis revealed that just 20 per cent of the available battery power had been used for the two flights – very impressive by any standards!

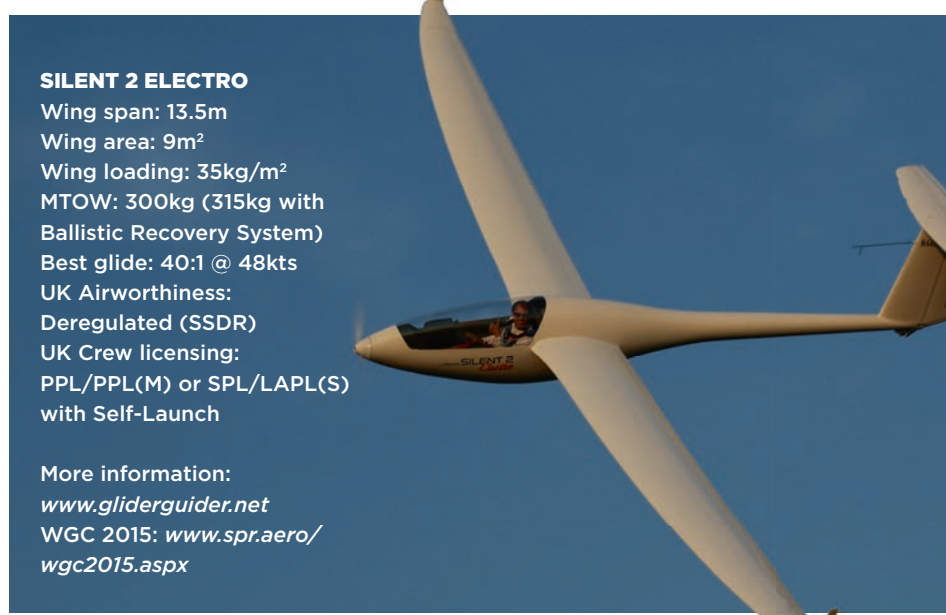
**Chris Gibson:** Several things impressed me about the ease of operation, but I had to smile when with just a turn of the 'throttle knob' the glider leapt forward and smoothly into the air. Climbing out at about 6kts, the take-off was completely uneventful. I found the glider very easy to fly, the controls being well harmonised. As

a light sailplane and with almost full span aileron it was very responsive; the stall was positive, but uneventful. Having been used to a glider with trim and flaps, the automatic adjustment of both via the flap control took a little believing, but after a short while I was convinced it all worked and was just very simple to fly. The battery management system provided clear information about power utilisation and time remaining. In the circuit the undercarriage operation is easy and the landing completely uneventful. Good fun – and I am sure it will find its place in the market.

**G Dale:** My first impression was that, although the glider is small, it's very comfortable and has plenty of room in the cockpit. Controls are light as you would expect. The motor is incredibly simple. At the first sign of a thermal, crank it into a turn and shutdown the motor. Once in the glide the Silent 2 is light, nimble and has what appears to be reasonable performance at moderate speeds – maybe up to 75-80kts. It's just great to fly, feeling very agile and willing to turn tight in thermals. Much more pleasant to fly than other self-launchers I've flown, including some very costly two-seaters.

There's no engine up and down nonsense, the batteries come out of the fuselage quickly and easily, are light to carry around and the chargers can be stowed in the cockpit. Of all the aircraft to appear in the last few years – including the ones with blisteringly high performance, and all the high-cost self-launchers and turbos – I find this the most interesting. It offers the prospect of simple, safe, moderate performance self-launch soaring. It's the sort of glider you can take to the hills, the mountain or the desert and really get stuck into some serious flying – with almost no support. I just loved it. So how about a proper competition then?

**Bill Murray:** My first impression was gained while rigging. The wings are incredibly light (just 34kg) and with automatic coupling of the controls it all goes together with incredible ease. The FES system is impressively simple to operate. A clockwise turn of the speed knob and the prop is out and running. Likewise shut-down, with an anti-clockwise turn the prop stops and parks, all becomes quiet and you're flying a glider! Positive flap allows slow tight circling, and will out-climb pretty much anything. Moving to negative flap it accelerates smoothly,



**SILENT 2 ELECTRO**  
Wing span: 13.5m  
Wing area: 9m<sup>2</sup>  
Wing loading: 35kg/m<sup>2</sup>  
MTOW: 300kg (315kg with Ballistic Recovery System)  
Best glide: 40:1 @ 48kts  
UK Airworthiness: Deregulated (SSDR)  
UK Crew licensing: PPL/PPL(M) or SPL/LAPL(S) with Self-Launch

More information:  
[www.gliderguider.net](http://www.gliderguider.net)  
WGC 2015: [www.spr.aero/wgc2015.aspx](http://www.spr.aero/wgc2015.aspx)

giving the impression of a larger span glider. All in all, a very nice package

**Ayala Truelove:** I flew the Silent 2 Electro in the first Italian FAI 13.5m Championship and I fell in love, so much so that I have decided to buy a share in a new one! The ability to self-launch was simply fantastic. In most cases we shut down the motor at about 900ft, having used only about 10 per cent of the available capacity. On one particular occasion, when things did not go well, I motored some 50km back to the airfield, maintaining level flight at just 6kW of the max available 22kW. Goodbye field landings!

The glider itself is very nice to fly, light on the controls and well harmonised, but it's in the glide that the Silent 2 really shines. We were cruising at 75-80kts, flaps -2, and the performance was very good indeed, easily outrunning the Club Class gliders flying the same task. If you think 13.5m is too short, think again. The proposed handicap for the glider in the UK is somewhere between 94 and 96, the same as an LS4. In short, I was hooked and highly recommend you try it.



■ Read about Paul Conran's flight in the Silent 2 Electro, pp30-33, Feb/March 2014



Allan Arthurs has been a member at Lasham since he started gliding in 2007 and describes himself as an "average club pilot". He has accumulated some 870 hours, a Silver C plus a few Gold bits, one Diamond and a BI Rating

■ A lightweight, deregulated, self-launching sailplane that is easy to operate and a delight to fly; what's not to like? We look forward to the first 13.5m World Championships in Pociunai in August and the future of the new class. Whatever happens, it's sure to be exciting and we fully expect the Silent 2 Electro to be a serious contender!