



Andrew Underwood
The Sting's centre console has all the primary controls grouped neatly, including fuel.



John King
Mark Easson is Sport Aircraft Ltd's director of operations.

able to hold 25kg, suitable for several small overnight bags or even a tent.

At the far rear of this area is concealed the Galaxy Rescue System rocket powered parachute launcher, connected to a bright red activation lever under the left-hand side of the main panel. A small circular blastaway recess in the bubble canopy sits directly above the storage area for the parachute, designed to be easily penetrated upon discharge. Four metal cables are attached to the parachute, intended to deliberately tear along a fuselage strip underneath the cockpit canopy and anchor the aircraft level when deployed, an arrangement similar to the famed Cirrus airframe parachute system (CAPS).

My instructor for the day was Mark Easson, an ex-Air New Zealand B747 skipper with 19,000 hours under his belt. He said that after losing his class 1 medical and retiring from commercial aviation, he'd discovered a local Sting S3 ownership syndicate that allowed him to fly with less restrictive health requirements and had his love of flying reignited from what he called "a real pilot's aeroplane". He enjoyed flying the S3 so much that he decided to pursue an SAC instructor's rating, which then led to him qualifying as an SAC examiner and go on to train other SAC instructors.

The syndicate now acts as the official NZ agent for TL Ultralights, and after several years of happy aviating has upgraded from the S3 to an S4, also importing a pair of TL-3000 Sirius, the high-wing big brother to the Sting—one of which was sold to Glenn Martin of Martin Jetpack fame (but that's a story for another time). As of early April 2015 there is a total of five TL-2000 Stings on the NZ register.

In flight

Pulling the Sting out of the hangar is easily a one-man job and I hop in. Starting the injected Rotax is a doddle, with a three-second burst of the auxiliary electric fuel pump to put some pressure in the lines, then rotating to ignition key from BOTH to START. It fires straight away with the throttle cracked about a fingernail's length from idle, and all the Ts and Ps quickly rise into life, thanks to the morning's 24deg outside air temperature.

With a muggy 10kt easterly, we make a decision to taxi with the canopy ajar before popping the parking brake on under my left-

hand seat for a quick run-up. No crosses over any of the Dynon instruments or any significant rpm drops from run-up power of 4000rpm during magneto checks mean we are good to go, and I select 15deg flap for takeoff and line up on runway 03.

At 510kg calculated takeoff weight, and after gently applying full power, Mark instructs me to nudge the stick back at 45kt indicated. The Sting leaps into the air as if it weighs no more than a leaf after 200-odd metres, and I keep the nose up to hold a 65kt climb, the S4's best lift-to-drag ratio. Flaps come up without any significant change in pitch, and I gently reduce the power to 26in/5200rpm which results in an easy 900fpm climb.

We vacate the aerodrome area, out to sea between Orewa and the Whangaparaoa Peninsula, and level off at 2000ft, power now set to a maximum economy cruise of 25in/4800rpm. The Dynon shows a 17kt northeasterly wind coming off the Hauraki Gulf, but I find positive control of the aircraft effortless with just forefinger and thumb gently pinching on the stick, maintaining altitude and balance well.

The green stripe on the left of the PFD shows an indicated speed of 103kt, labelled as 106kt TAS and groundspeed of 98kt below.

With the bubble canopy appearing seamless from shoulder to shoulder, I feel almost like flying in an open cockpit aeroplane—albeit without the rush of wind to the face. I try a medium turn 360 to the left, then a steep turn 360 to the right. Both are within what I remember the flight test margins to have been from my commercial test, which I am quite happy about for my first attempts.

Next I set up for a power-off stall, maintaining a fair bit of back pressure. The aeroplane is still flying at 40kt in the clean configuration, tipping ever so slightly forward around 33kt, although position error would come with the unusual nose attitude at this point. Regardless of this, the recovery is a simple nose level and increase in power. I don't lose more than 100ft of altitude

on my first attempt, but Mark then manages to show me up, doing it in less than 50ft.

It takes me two attempts to get the wing to drop with a bit of power on in the approach flap configuration, but when it does to the left it's so docile we almost miss it. Recovery is the same as before, less than 100ft lost and almost a non-event.

Mark comments that a flight school CFI had test flown another TL aircraft with him and decided it would be pointless to train his own students on as the aircraft didn't seem to have any vices! He reckoned student pilots need an aircraft that bite you when you make a mistake so that they'd learn not to do it, and the Sting is simply too forgiving.

Back at 2000ft over the Waiwera coast now, I close the engine down and see what performance the power-off glide results in. I aim the nose for Motuora Island, confirmed by Google Maps at 4.5nm distance, and attempt to set 65kt again for the best glide, although being unfamiliar with the nose attitude I'm closer to 75kt.

Mark points out a bare paddock on the top of the island as a forced landing site and suggests I try aiming for it. It turns out to be easily obtainable and I would have had to make an S turn and drop some flap, as by the time I arrive overhead, I still have 700ft up my sleeve.

We drop to low level and make an orbit of the island. With flap at 15deg and airspeed below 70kt, only a trickle of forward trim is required to keep the Sting flying comfortably.

By now we must be only been 0.5hr into the flight, but I already feel very much at home with the controls, having been able to push it around somewhat and get a feeling for what kind of feedback my actions generate.

I elect to head back to North Shore on completion of the Motuora circumnavigation, and Mark suggests I try the autopilot, an option with the Dynon. It includes a myriad of functions, from basic track+altitude hold to a HSI+altitude mode if a flight plan course is loaded.

A "LEVEL" softkey has the aircraft immediately aligning its wings with the horizon should the pilot become spatially disorientated in inadvertent IMC, a feature I remember impressing me in the Cirrus SR22 last year.

Another "180°" softkey on the autopilot menu allows for a reversal turn at the touch of a button without having to bug either your current heading or desired heading, which works flawlessly upon a curious test. Climbs, descents and heading changes can all be altered through scrollers on either corner of the PFD and can reduce workload immensely on long cross-country trips.

Back at North Shore we join downwind for 03 and perform three circuits. With full flap on each, I drop the airspeed to a stable 60kt on final, reducing to 50kt over the fence with a slight nose-up attitude in the flare. Even with closing the power a fraction too early on the first attempt it is still a comfortable touchdown, which I manage to improve upon on with my second effort on the seal. My full stop on the grass vector is much better with Mark's tutoring, and we roll to a stop without touching the brakes long before reaching the 09/27 cross vector.

Back at the hangar, just before shutdown, I ask Mark how much fuel he reckons we've used. He says the syndicate plans for 17lt/hr when flying long distance, but the Dynon can show the actual quantity burnt per flight.

He then points at the screen which reads "7.1 LTRS USED". Just 7.1lt for running the engine 0.8hr—I probably burnt more gas driving out to the aerodrome and back home! It still amazes that while achieving the same forward speed as the likes of a Cessna 172 which burn 35–40lt/hr, LSAs such as the Sting are able to do it so much more efficiently—albeit with fewer occupants.

During the mandatory post-flight coffee and bikkies debrief, Mark praises the S4's ability to achieve the almost contradictory balance between simplicity and complexity. Systems wise, the aircraft is still basic enough for those flying it to be able to enjoy the freedom of flight without complicated or unnecessary distractions, yet still feel safe in the knowledge that the aircraft watches your back should any difficulty be encountered in the sky.

The balance is achieved through a good decade's worth of fine tuning what was already a good aeroplane design to begin with and turning it into a great one, and 650 of the Sting variants flying worldwide can attest to this. The harmonised flight controls certainly make controlling the aircraft a breeze, and I imagine it would have been rather difficult not to fall in love with the effortless yet effective level of control the Sting gives you, having grown accustomed to flying around in 400t airliners for a day job.

As Mark says—it was great to get back to basics with the Sting, but having the technology there if you need it is a real confidence booster.

My last question before parting ways is to summarise the Sting into three words. After an appropriately long pause, Mark offers the following words: Safe. Exhilarating. Panoramic. (I should reiterate that photos just don't do the view from the cockpit justice.)

The Sting as demonstrated to *Aviation News* is selling new for \$199,999 plus GST, with the current euro-kiwi dollar exchange rate making this a good time to place an order. An approximate five-month delivery period is typical from the Czech manufacturer, with the new aircraft able to be delivered anywhere in New Zealand upon reassembly after five hours' dual tuition in Auckland for each owner new to the type.



Andrew Underwood
Only 7.1lt used! At this rate there's enough for just under four hours' more flying.



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