



LONDON GLIDING CLUB, DUNSTABLE

Newsletter

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Shark Attack



When I heard, in early May, that the HpH Shark demonstrator was going to be doing the rounds, I e-mailed Tony at HpH to ask if he'd bring it to Dunstable. I'd seen one in flight and on the ground at Saal last year but I never thought I might have a chance to get airborne in one, let alone to play with the jet engine.

The HpH 304S is a flapped 15/18m glider available in pure glider, self-sustainer and self-launch varieties. This was the most interesting variant: the jet-sustainer.

It arrived on Saturday 25th June which was, unfortunately, grey, overcast and with rather low cloudbase but Andy rightly predicted that it would break and by mid-day there were gaps enough to fly up through. Conveniently, the hill was working too. I spent a couple of hours in Sierra India with Rupert Puritz while first Lofty, then Dave Starer had a go. I guessed from the big grin on Dave's face that it was quite nice.

I've owned a couple of flapped gliders so that wasn't an issue but I expected a long, detailed briefing on the jet – perhaps with a test that I remembered what I'd been told – before they'd let me at it but it's so simple, the briefing was over in a couple of minutes.

Getting comfortable was no problem as there are plenty of positions for the seat back, rake and rudder position. It's a fairly laid back posture but not as much as an LS8 and much roomier. The fit and finish of the carbon fibre instrument panel and cockpit generally is first class. Much of the glider is carbon fibre. The flap positions are hard to see on the cockpit side but an excellent light indicator display near the top of the instrument panel more than compensates once you are used to it.

Take off into a stiff, slightly cross wind is straightforward. It's quite nose-high due to the big, well sprung wheel (the wheel and engine are the only bits HpH don't make themselves). The u/c lever is on the right wall and straightforward to operate (out-back-in) and I pop it away once I am at circuit height. I tow out towards Leighton Buzzard and release at about 2,000 ft, not so much to have height under me but to get well away from the club as I intend to fire up the jet soon after releasing. (After all, that's the toy I most want to play with!)

Operation of the jet involves three switches. First flick the master switch for the engine electrics. Actually you can turn this on from the start if you want as it doesn't drain the battery. Then the engine erector

switch. A couple of seconds is all it takes for the little pod to come up from the engine bay and its position is displayed graphically on the engine management screen which says when it's ready to start. There's no noticeable drag and if it should fail, the beauty is that you still have a glider with good performance to field land at leisure. The third switch I flick is the engine on switch and she powers up, initially running fast then slowing to idle. Again, it's only a few seconds and then you can turn the throttle knob clockwise to spool up more power. The noise is high pitched and noticeable but nothing like as intrusive as a solo engine. It's also remarkably smooth. It sounds rather like a vacuum cleaner behind your head.

The glider surges forwards (not dramatically) and my own grin broadens. I'm a jet pilot!

I played around for a while, mixing 60 kt climbs (up to 300 ft/min) with fast 100 kt cruising to slip under and then over the cloud bars. She handles beautifully under power but I'm not throwing it around at this stage, just enjoying the ride. At a little over 3,000 ft, I wind down the thrust to idle and flick down the 2 engine management switches (engine off and pod down). The whine drops away to almost nothing but the pod stays up until the



system has cooled, then it puts itself away after a couple of minutes. I think there's a bit of a pitch down as the jet pops itself away.

Now all is serene and quiet and, after some clearing turns, I feel out the handling. The controls are light and it's very pitchy (due to the rather short boom?) but the fore/aft movement of the stick is comparatively large so keeping attitude is easy. Roll rate seems very good though I haven't flown the latest generation of hot 15/18m racing machines so I can't really compare it with, say an ASG29 or a Ventus 2. There are masses of rudder and you don't often need it all, even when turning abruptly or turn reversing. I imagine the rudder is optimized for 18m tips so it's more than enough at 15m. Stick forces are particularly light and I find I fly around with my right hand in my lap, just gripping the bottom of the stick.

each is text-book (as you'd expect) but the glider is very slippery and piles on speed rapidly.

Fun though this is, I don't want to waste all my height and wander under the clouds, vainly looking for a decent thermal to try. With a successful call for 26 clearance, I head out at 120 kts (solid as a rock and still remarkably quiet) towards Ivinghoe Beacon which I test out with a few beats. It's working, but not spectacularly and I decide to drop back to the home ridge before there is the slightest risk of a landout. Where was my brain? I have a jet in the back which takes seconds to deploy!

Back on the ridge I play around for a while, enjoying S turns with the sharp turn reversal that the Shark allows me and occasionally grabbing a passing thermal which she climbs with alacrity, if a little faster than would expect to need with a flapped 18m glider.

A gentle stall is so undramatic that the only indicators are the sink rate and the stick position. There's no buffet at all (perhaps there should be) and the ailerons even keep working. A steeper stall is followed by a spin and recovery from

One thermal takes me up and away behind the hill and I race back across the airfield to sort out a relaxed circuit for a landing on the SW run. The brakes are big, triple paddle affairs with neatly rounded cap ends but I need less than half on approach from 400 ft in landing flap. As I near the ground and struggle to pick up the downwind wing I remember being told not to bother with landing flap as aileron control is better in +2. She needs to be well held off or she'll bounce on the big wheel and try to fly again. I manage a reasonable but far from immaculate landing. Perhaps I can go up and try again?

Things I don't like:

The flap lever has left hand detents - that's to say, you move it towards the side wall to unlock it. This seems like a sensible idea to differentiate it easily from the brake lever but it's counter-intuitive and in practice I never got used to it. I'd much rather it moved right to unlock.

The trimmer is a couple of inches behind the flap lever and is a small, vertical lever, sprung to the left and released by moving to the right (similar to the Duo). I found I was constantly nudging the trimmer with my 'flap hand' and dislodging it, once resulting in a sharp pitch down when I wasn't ready for it. I don't generally like trigger grip trimmers on the stick but in this case I'd

much rather it was here, well away from the flap lever and leaving the left hand free to float the flaps up and down at will.

Things I do like:
Everything else!

The build quality, engineering and design are all first class to my eye and whilst not cheap, the Czech built Shark will set you back far less than the equivalent Ventus, for example. The price (for the jet sustainer version), complete with Cobra trailer and basic instruments, is just over €105,000. I'm thinking of selling the wife and daughters.

Robert John

See my view from the cockpit at <http://tinyurl.com/sharkjet>
Sorry I ran out of memory at an interesting bit but since I'm here, you can take it the spin recovery was OK!

My sincere thanks must go to Robert for writing this excellent insight into the HpH304. His unbiased view, for me, is the best advertising I could ever ask for!

The Shark is proving extremely popular worldwide with already multiple sales of the Jet and Self Launcher variants in the UK within the first two weeks of being in the country.

Worldwide sales are increasing exponentially as news of this excellent product spreads and it is obvious that the Shark is set to exceed the previous good record of the earlier 304 series gliders.

Craig and I have found the feedback from those who

have flown it to be very complimentary, with many critical comparisons drawn against the Ventus 2CXT, JS1 and ASG29 concluding in our favour which is very flattering!

We both felt very welcomed by the members of London Gliding Club, and thank you all for your hospitality and the invite to visit in the first instance. Please keep an eye on our regularly updated dealership website, and for those with more than just a curious interest in the products we offer, we are but just an email away!

Tony Hoskins

All photos: Francis Russell

