

GLIDEPATH



The Journal of Wessex Soaring Association. March 2022

From the Editor

After the recent spates of storms I expect most of us are hoping for some calmer weather as we move into spring, which according to the Met office starts on Tuesday. A few people did have an impromptu slope visit at the end of last week and are pleased to report the track up to Horses is now in pretty good condition, though how long it will last is another matter. Also in the edition Nigel Bennett describes the conversion of one of his discus launch gliders to the new F5K class, while Dave Camp gives an account of building a scale model of a Goppingen Go 1 Wolf; in which the greatest amount of time seems to have been spent in making a range of modifications to the kit.

From the Chair

It seems like a return to some sort of normality is steadily on the way, hopefully with lots of nice flying weather. Planning ahead for the new season, I have purchased some new Lipos for my various planes. This brought up a question regarding the best temperature to store them at. There is quite a lot of advice on the net as you would expect and it seems anywhere from 5C to 20C is OK, with possibly the lower temp being better for long term storage. However it is wise to warm them up to around 20C charge them.

Plans for 2022

Slope fly-ins will continue as the first Sat/Sun with the second Sat/Sun in the month as fall back.

The E Soaring will start in May. I also plan to hold a **pre-season E Soaring meeting** at the Horton Inn on **TUESDAY 15th MARCH**. This is to chat about any possible changes **to the current format**.

"Winter" Warmer

It looks like it MAY be possible to hold something later in the year (Summer/Autumn) so watch this space !

Slope Tour

I am planning to run this year's tour on **SUNDAY 6th MARCH**. This event is mainly aimed at new members, but anyone is welcome to tag along. If you are interested please email me at martinburr9@gmail.com and I will add you to my list.

Slopeside by Pete Carpenter

As far as I am aware there is no change regarding the Oxo/Swallowcliffe situation. There is also still no change with Stoney Down so for the time being we can continue there as we have done. The situation regarding the other slopes is shown below. Please use your own common sense and apply

the countryside rules. Therefore if things look different at a site, particularly if it involves crops or livestock, please do not enter and contact me on pete.carpenter12@gmail.com or 01722 328728.

- 1) Winklebury (W to NE wind) - Available.
- 2) Norrington Down (S to SW wind) - Available.
- 3) Donkey Valley (SE wind) - Available.
- 4) Swallowcliffe (NW to NNE wind) - Available but have to park on track
- 5) Quarry (W to WNW wind) - Available. Access to the slope must be via the Stony Down / Berwick St John route only. Launching and landing from the slope face is OK, but the slope is perfectly flyable from the Berwick St John field. You may encounter some paragliders as they also have permission from the farmer to fly there. In this case it is best to have a friendly chat with them and see if you can agree separate airspaces for models and paragliders.
- 6) Oxo (WNW to NW wind) - Available but have to park on track
- 7) Horses/Barbara's Field (WNW to NW wind):- Available.
- 8) Daltons 1&2 (NW to NNW wind) - Available.
- 9) Crockerton (NW to NNW wind) - Available subject to rules in slope guide.
- 10) Death Valley (SW wind) - Available to mid August
- 11) Berwick St John (SW wind), Stony Down (ESE to SE wind) - Available. Code on gate padlock is 5823 . Please do not over fly the parked cars on your landing approach at Stony Down.
- 12) East Bowl (NEE to E wind) - Available. There is a gate with a keycode, which is 7850. The shepherd is Mr.Fletcher (red Toyota pick-up) and he has asked that anyone parking on the track put a little note on the dashboard of their car, letting him know that they are a WSA member.

There are also a number of public slope sites, particularly in the Purbecks that anybody can fly from. A list of these is maintained on [Christchurch Club's website](#) so please have a look there for details.

Flat Field Update

1. The field number to be used is determined by the farmer to suit his activities and is liable to change periodically.
2. The current chosen field is shown by the number on the hook located on the front of the club (green) cupboard in the yard opposite the Farm House. **Leave this where it is.** NB, after a period of strong winds the number may be blown off its hook and might then be found nearby on the ground.
3. The location of the fields is shown on the numbered map to be found in the club cupboard.
4. If you are the first to arrive, take out the red sign from inside the cupboard which reads (WSA ON SITE) and slip this into the grooved slot on the front of the club cupboard.
5. On competition days take out the required equipment; tapes, cones etc. and take to the flying field.
6. After the flying is finished return any used equipment to the club cupboard and remove the "WSA ON SITE" red notice and put back in the cupboard.

Ensure that the field number remains where it is, hooked to the front of the club cupboard.

Be aware of the field condition, e.g. after rain. Do NOT leave wheel spin marks. If in doubt, park off the lane outside the field. Leave space for farm traffic.

Be aware of footpaths across the fields, Do not launch if walkers are on the paths. Do not launch if horse riders are nearby.

No low flying over power lines. **No flying over farm buildings and the cottage, AT ANY HEIGHT, or immediately upwind of the farm complex.**

Fly SAFELY at all times. Especially launching and landing. Do not launch over cars and do not approach a landing over other flyers, fly a proper circuit.

Report any problems to the flat field rep, Doug Bowmann.

An End of February Jolly by Bill Ebdon

Prompted by a suggestion from Martin that he and Ian Wettstein were planning to go to Horses on Friday the 25th I slung a few planes in the back of the car and went along.

Now there has been plenty of bad news recently, which I will not touch on, but today there was some good news; someone has graded the track up to Horses and it is back to pretty good condition. There is just one length of water-worn gully at the bottom of the hill but it is not hard to drive on the other side and avoid it. When I got to the top of the hill, surprise surprise no caravans, just the burned out wreckage of one of them. I have no idea what happened yet but there are four gas bottles and a jerry can in the remains which amazingly did not explode.



Anyway to the flying. Ian was there with Phil Ford(?) enjoying a decent 15mph wind on the slope and good lift. Ian was flying his Gulp and Phil flying a home-cooked Wild Thing look-alike and a Zagi. I joined in with my Phoenix models Carrera which went very well but was reluctant to come down to earth as each landing seemed to need three trial runs. Ian changed over to his Weasel but had an unfortunate prang with the Gulp taking evasive action following a head-on loop towards the slope. Undeterred Ian changed over to his orange moulded Typhoon (I think) and burned that around the sky. I put my Wolf up for some more sedate vintage stooging as Martin turned up with his Scorpion and joined in. He then switched to a vintage rudder/elevator T-tail job that he has been renovating during lockdowns and demonstrated just how to land.

The view was great with sunshine and cumulus clouds everywhere, skylarks singing, buzzards and a kite checking us out and just the need to warm our chilled fingers to remind us it was still technically winter.

Bungee Launch DLG to F5K by Nigel Bennett

Back in the distant past the WSA ran a series of comps for short bungee launched models up to 1.5m span and good fun they were. Some of the models were discus launch models (DLG) with a hook added for high speed bungee launching. I bought a Taboo GT wing from the USA, made my own fuselage and tails and the resulting creation launched and flew very well indeed.

A few years later I thought it would be fun to build an electric launch version using the same wing and I originally converted the DLG fuselage that I had built to electric power. I flew it a few times but for some reason another project took precedence and it lay gathering dust for several years. Seeing Ian Duff flying his F5k model the other Sunday, convinced me I should continue with this project as it seems there could be several of these little gliders gathering dust in WSA hangers, and converting them to E power should not be too difficult or expensive. An 8 or 10 second motor run could result in some good lower level soaring, especially if a few were launched at the same time.



For the power train Hyperflight advertise some very neat complete systems including a motor, 25mm spinner, 6x3 prop, tiny drone ESC, all wired up with battery plug and at a not too horrendous price. However I did not go this route as I already had some of the components and my fuselage was rather larger than the 25mm diameter at the nose. I used an ADH300 21gm motor and a 6x3 prop. I already had a tiny drone esc and 450mAh 3s LiPos. It balanced O.K. at the 63mm point suggested for the original DSG wing and weighed some 350g, probably some 70 g heavier than some of the latest f5k models.

A word about these racing drone ESCs. Hyperflight are now selling a range from 10 to 35 Amp capacity. Most are already programmed for glider use, with prop brake, and include an S-BEC. The advantages of these sophisticated little controllers compared to the normal ESCs that have been around for years are their tiny size, minuscule weight and best of all selling for £25 or less.

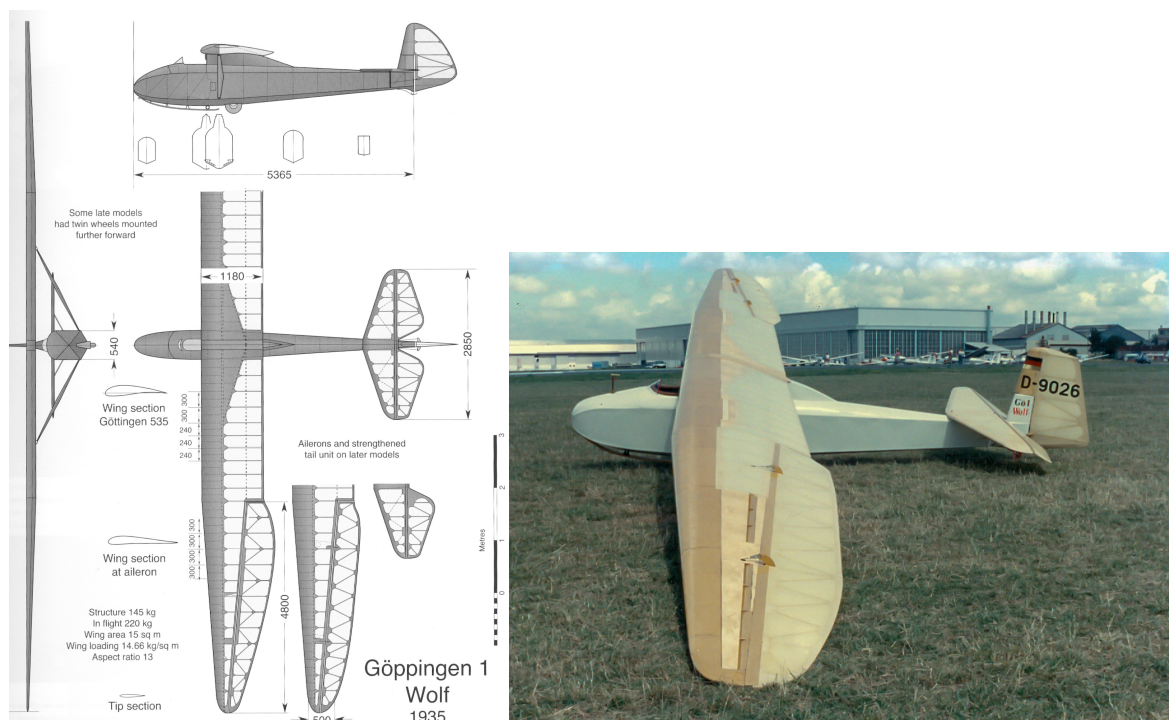
Unfortunately Eunice intervened and so I have not tested this little model yet. Roll on the spring.

Micro Wolf (modified) by Dave Camp

As a retirement present I was given a Sarik short kit set for the Goppingen Go 1 Wolf as designed by Chris Williams. This is a small scale (1/7th) version of the pre-war German training glider. So with the original at 14m span the model comes out at 2m. It should have been a very quick build given the size and a bundle of laser cut parts, but well I just had to make modifications. Sometimes I wonder if I sub-consciously look for ways to slow things down and over complicate!

My reason for the changes was because I had seen and photographed a reproduction full size Wolf in 1988 at the Bourges (France) airfield at an international vintage glider meeting. Chris has based his design on the early production gliders with their distinctive aileron shape, but there are also other differences to the reproduction I have photographed. With reference to Martin Simons Vintage Gliders books there was an issue with the original Wolf design, namely the spinning characteristics. So late in

its life after many had been built the authorities forced a design change to reshape the ailerons and add a slot ahead of the aileron hinge line; presumably to help control the airflow. It does seem that the real cause of the spinning issue was defective manufacture of some airframes, but by then the design change had been made which sort of killed off the type due to increased cost, and of course glider designs were improving significantly by that period. What I have not quite worked out is whether that the Wolf I photographed in 1988 had a different rudder shape which seemed quite angular, but that was easily dealt with and at this scale no one is going to claim 100% accuracy. So in the absence of any 'pukka' drawings I used my photos to draw up a rudder that looks about right, but that was quite quick.



3-view of full size from Martin Simons The full size Wolf, 1988, Bourges

Now the real cause of my slow build, the air brakes. The original early versions of the Wolf did not have any airbrakes as was often the case with early glider designs. On a model it is not too much of an issue these days as up aileron can be used, as Chris has very successfully demonstrated with his model. However the late version I saw had top and bottom acting airbrakes, and in my innocence I thought 'well I've designed and built this type of airbrake in my 1/4 scale Goevier (back in 1987!), so this shouldn't be an issue'; ha, more fool me. Well I will not bore you with the detail but suffice to say, about 3 weeks spent in the workshop trying to get a set of 1/7th scale brakes to work reliably proved futile. There is only about 18mm of wing depth to work with and although I could get a set working it was not reliable, as at the small size I could not get enough rigidity in the pivots and arms. After 2 weeks I decided I would cheat and make brakes that just came out the top surface and that was successful. However they were also bulky and then during the wing build it became obvious that the challenge of fitting an additional micro servo in each wing with wiring down to the receiver in the fuselage just was not going to happen. A photo below shows my top acting brake as proof of my perseverance (dumbness!).



The aileron planform is the most obvious change from Chris's plan, but that was easy using photos and a drawing of the later Wolf version. I also made some other changes

- 2 piece wings using 20mm chord centre section that bolts onto the fuselage pylon, fitted with a steel blade joiner and incidence rod. Brass boxes and tubes were easily fitted and boxed on to the spars.
- Modified wing sheeting as the later version had fully sheeted wings from about 2/3rd of the tip panel outwards, plus slightly different root sheeting. I also added a rear lower spar to match the full size as I was thinking ahead re using translucent covering.
- Fuselage bottom section aft of the wheel, the drawings and photos of the late version has a simpler form.
- Skid to replicate the later version which I laminated out of 5 x 0.4mm ply over a form and attached using a couple of rubber grommets to give springing.
- On the tailplane I added some additional bits to sort of give a representation of the full size and to slow me down further I ditched the simple and effective all sheet elevators from Chris's plan and used built up strip wood. This change was largely driven by my idea of using translucent covering material to sort of match the clear doped linen of what I had seen.

The fuselage nose profile does not quite match the full-size version that I saw, but at this scale I decided to draw the line at modifying anything further.

Well that is about it, the majority of the construction went OK though I had a bit of a fight pulling in the nose section of the fuselage framework (1/8 sq. spruce on 1/16th balsa sides); however by using a jig, a bit of patience, series of saw cuts and some wood steaming it worked OK.

I have fitted a Multiplex tow release to match what Chris has done and used slightly larger Hi-Tech micro servos in the fuselage. There is a closed loop rudder and pushrod with ball link end for the elevator. The elevator drive is a simple piano wire rod so it is easy to make the elevator connection, although at this size I am expecting to transport the model with the tailplane bolted on. I added some lead inside the nose block, but still needed some additional lead on the front former and on top of the battery to get the balance right. A basic Multiplex 5 channel 2.4GHz receiver fits in the cockpit area, with the aileron extension leads feeding up into the pylon and with sockets poking out each side of the bolted on centre section.

For the covering as an experiment I used Hobbyking clear matt film on the wings, ailerons and tail surfaces. This was a first for me, but was trouble free. Now one issue I had thought about was that balsa does not have the lovely golden hue of the varnished plywood used on the full size, and although this is by no means a 'serious' scale model I thought I would try to add some colour. So I used Ronseal satin oak wood stain – one coat over all the balsa surfaces. By no means perfect, but I think it has helped add some tone to the balsa that is almost white without. I found that I could also

draw on some panel lines with a pencil before covering; well it kept me happy! The fuselage is covered with Oraltight 'scale white' and I think that has worked OK colour-wise. For the fin and rudder I printed the registration and lettering using ink-jet vinyl that I found lying around and that has worked OK. I cut the underwing registration in black Solartrim. As of writing I still need to sort out the small windscreen on the cockpit and add a pilot head of some sort as it does look odd in my eyes to see a scale glider in the air without a figure/body to add scale perspective. The finished model weighs in at 1065 g , about 38oz or so, which I think matches Chris original.

So to the flying, well I have just had one flight so far on Oxo in a moderate WNW wind. A few clicks of up trim were required, but it was otherwise OK. It does seem a bit lively so I think I have got too much aileron throw and being without dihedral (just the tapering wing thickness in the outer-wing panels giving a slight dihedral effect) it needs a fair amount of rudder to get smooth turns. The landing using a bit of up aileron was fine, but a bit heavy so the skid ended up being broken right where I screwed it on at the front. I will probably laminate a new skid and try and fit it so it can slide in a socket to allow the springing to work better. Failing that then I will follow Chris' plan and block the skid in and just tell everyone that the full size later used a skid with fabric covering, which is common practice anyway!

So in all it has been an enjoyable build, the Sarik parts were all fine, although of course I ended up changing some of the real time savers like the ply aileron parts, rudder parts etc. I reckon built to Chris's plan using the Sarik parts would be a quick build but I took about 3-months, but not solid workshop time of course. So what next? Well with the scale 'mojo' being awakened I will be looking at my stash of plans and part kits that I have accumulated, plus a couple of part started 1/4 scalers. Or maybe I will repair my 1/4 scale Goppingen Go-4 Goevier that I built from scratch in 1987 and damaged it about 20 years back; maybe that should have priority to refurbish? Although I have also got an Aeronaut Bergefalke Mu13 kit with 3.5m span, it ought to have scale type airbrakes fitted and that should slow down a quick build!



For Sale 2.3m e-Soarer by Nigel Bennett

This based on a 2.5 m Pulsar wing, reduced to 2.3 m, with my own design moulded fuselage and tails. Comes complete with motor, prop, ESC, and 6 servos. Has been flown recently and photos are available if desired. Offers please to nigelcbennett@gmail.com

Calendar

Sun 6th March Slope Tour
Tues 15th March, Pre season meeting, Horton Inn
2nd/3rd April Slope Fly-in
0/1st May Slope Fly-in
Sun 22nd May E Soaring, Round 1
4th/5th June Slope Fly-in
Sun 19th June E Soaring, Round 2
2nd/3rd July Slope Fly-in
Sun 17th July E Soaring, Round 3
6th/7th Aug Slope Fly-in
Sun 21st Aug E Soaring, Round 4
3rd/4th Sept Slope Fly-in
Sun 18th Sept E Soaring, Round 5

Contacts

The committee members for 2022 are;

Chairman- Martin Burr, 01202 773144, martinburr9@gmail.com

Secretary - Bill Ebdon, 01258 861612, bill.ebz@gmail.com

Treasurer and Member Secretary- Alan Butterworth, 07905 765634, ajbutterworth16@gmail.com

Glidepath Editor – Roger Crickmore, 01929 550680, roger.crickmore@btinternet.com

Flat Field Representative – Doug Bowman, 01202 416664, dougbowman@hotmail.co.uk

Slope Representative – Pete Carpenter, 01722 328728, pete.carpenter12@gmail.com

Slope Deputy– Mike Sims, 01722 326550, mike.sims1@sky.com

Flat Field Competition Director – Martin Burr, 01202 773144, martinburr9@gmail.com

Member without Portfolio - Nigel Bennett 01258 861863, nigelcbennett@googlemail.com