

GLIDEPATH



The Journal of Wessex Soaring Association. April 2022

From the Editor

Bit of a short edition of Glidepath this month I am afraid, but as I have said before, if I people do not send me articles I cannot include them. I have often thought that seeing as we have about 60 members if each person could contribute just one article a year, which is surely not too much to ask, then we would have 5 articles a month. Anyway, the main article this month is again from Dave Camp and is about the continuing development of flying wings for full size gliders, though the initial versions built have been scale models. I meanwhile have added a short piece relating a strange idea I had about 14 years ago and whether anybody has actually tried it.

From the Chair

I was hoping for some nice flying weather, and it seems to have arrived ! I took advantage of a couple of nice Mondays and called a fly-in at Chalbury. Anyone can do this, just announce it on the Google group. If you are not a member just let Doug or me know and you can be added.

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 series will start in May. I had planned to have a pre- season meeting at The Horton Inn, but as I had spoken to most of the regular participants at a fly-in or by phone and no-one wanted any changes it did not seem worth it, especially with fuel prices at the moment !

"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 ran a slope tour as scheduled, meeting up at Win Green. Barry Smith and Dave Camp came along, we had a nice run around the regular slopes ending up at Stoney Down for a bit of fun flying. The good news is that the track up to Horses/ Barbara's is in very good condition; a variety of cars made it up without issue. The caravan remains have also been mostly removed.

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.

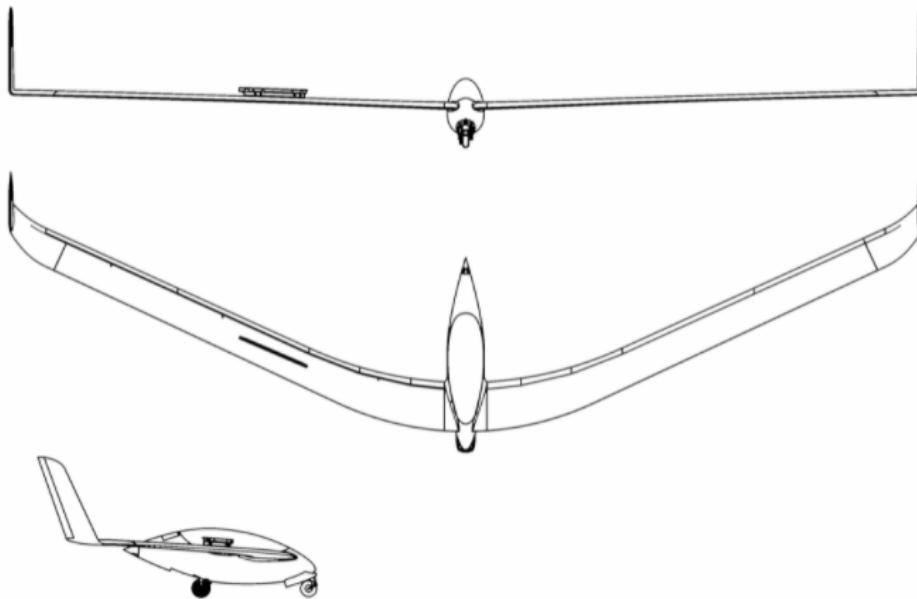
No low flying over power lines. **No flying over farm buildings and the cottage, AT ANY HEIGHT, or immediately upwind of the farm complex.**

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.

Flying Wing – AK-X, by Dave Camp

Courtesy of past WSA member and flying wing enthusiast Glyn Fonteneau, I found this new full size flying wing sailplane design, the Akaflieg Karlsruhe AK-X. An Akaflieg is a group of aeronautical engineering students from individual German Technical Universities, who design aircraft, often gliders. It seems the sailplane world are still looking at the flying wing concept to give a performance advantage over conventional designs, despite the various difficulties thrown up by a flying wing. Anyway, below is a 3-view of the design lifted from their web site www.akaflieg-karlsruhe.de/ak-x



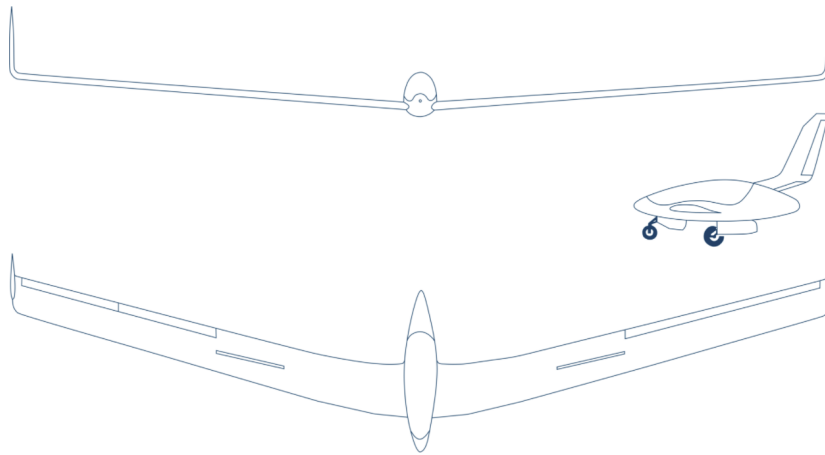
Basic parameters:

Span 15m, wing sweep 25 degrees, winglet height 1.4m, max design speed circa 160mph.

From the 3-view it shows they have the whole trailing edge span as moveable/trimmable surfaces. From the translation and quick read it is using flaps, elevators and ailerons, with of course, mechanical mixing. Fly by wire has not come to sailplanes yet we are ahead of the game with models of course. I have read that another German Akaflieg is working on electrically activated flying surfaces as a project for gliders in general.

The AK-X has been tested at both 4m span models and a ½ scale model. The ½ scale model was unusual in that it was aero towed up behind a ultralight manned aircraft. The full size is still under construction but, if you go to their web site and browse the blog and other areas using Google translate there is a lot of info showing the moulding process, destructive testing of parts etc. If you have 12 minutes to spare I think this U-Tube video is interesting <https://youtu.be/NEBi3doCcy0> as it gives info on the ½ scale model and has English subtitles. If you skip to about 9 minutes in there is a clip of the spinning characteristics; I think I would want that eliminated or better controlled if I were piloting the full size version!

The last flying wing that I recall seeing from an Akaflieg and I think the last attempt in the full size gliding world was the Akaflieg Braunschweig SB-13



A lot simpler in design compared to the AK-X, it flew for a couple of years but had nasty aero tow characteristics , which is often the case with wings as they tend to be very sensitive in pitch . There is also the handling issue on landing with a swept wing as the wingtips can easily touch the ground before the main body when flaring, hence the often stinky undercarriage setup used. Oh, and it also had nasty spinning characteristics as 'recovery' from a spin would often result in a spin in the opposite direction. The performance of the SB-13 was on a par with conventional designs, but did not give the performance advantage that would have made it worth pursuing the project.

A Strange Idea Revisited by Roger Crickmore

Long term members of WSA may recall that some (about 14) years ago I wrote an article discussing whether it would be possible, and indeed sensible, to try a pilot a model glider while you yourself were flying a paraglider. The idea in this strange sounding suggestion was that a modern radio controlled glider has better performance in terms of sink rate and speed range than a paraglider and so could be used to scout out the area around which the paraglider was flying, to try and find regions of better lift. Since the article was written the advent of e-soarers has given the model even greater capabilities such as being able to easily regain height if it did stray into a region of strong sink. I think my idea could only really be done from a tandem paraglider so that one person concentrates on flying it, while the other person controls the model.

I was recently thinking that somebody must have tried this idea out, and as they say you can find anything out on the internet, I decided to have a look. Unfortunately though I was unable to find any reports of people having tried this, though one of the issues is that it is difficult to come with a set of words to search that does not just return lots of results about model paragliders. Or perhaps my idea was so silly that nobody has ever tried it, but surely that could not be the case !

Calendar

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 14th Aug Limbo event
 Sun 21th Aug E Soaring, Round 4
 3rd/4th Sept Slope Fly-in
 Sun 18th Sept E Soaring, Round 5

Contacts

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