

GLIDEPATH



The Journal of Wessex Soaring Association. October 2023

From the Editor

The main article this month is from Pete Carpenter who gives an account of a the recent slope day as well as the building of his new Razor model. Even though this does not fly as well as he had hoped I have to say that it looks absolutely stunning. There is also a short article from Geoff Collins about the passing of another former member. Meanwhile I answer the question that I am sure many of you have asked namely, why are the aerials on the 2.4 GHz radio systems so much shorter than the old 35MHz ones ?

From the Chair

I managed to get a slope session in at Whitesheet Hill recently, where Ian Wettstien joined me for a loop and a roll or two. I have not been there for ages and it is well worth the trip, just to see some of the planes being flown by the club members.

Thanks to Dave Camp for the informative review of the Unisens-E, I like the way it will talk to a variety of systems.

Popham Model Show

I went to this event which featured all types of flying weaponry, from Jets to E soarers. It was a good day out at a lovely location.

E Soaring

Sadly the weather gods did not see things my way, so I had to cancel. I am planning to keep an eye on the weather and if a flyable Sunday turns up I will email round, so please keep an eye on your inbox. *Martin definitely made the correct decision as I went out for a walk on the day it was cancelled and at times the wind was so strong we had difficulty walking against it, Ed.*

AGM

This is looming on the horizon, so please make a note of the date TUESDAY 5th DECEMBER.

Slopeside by Pete Carpenter

The list below shows what I believe the situation to be at all our sites. 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. We can again park where we used to (on the track down to the slope) but be very careful of soft ground this time of year.
- 5) Quarry (W to WNW wind) - Available. Access to the original quarry slope is from the main westerly slope by hopping over the fence and walking to the 'quarry corner'. 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. We can again park where we used to (on the track down to the slope) but be very careful of soft ground this time of year.
- 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) - **Not Available**
- 11) Stony Down (ESE to SE wind) - Available. Please do not overfly the parked cars on your landing approach at Stony Down, and land from the right hand side. Code on gate padlock is 5823.
- 11) Berwick St John (SW wind) - Available. Code on gate padlock is 5823 .
- 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.
NB At Berwick and Quarry there is a new(ish) fence line that splits the main field and restricts the landing area to approximately 50m wide, as opposed to the whole field. Parking may also be different to before, subject to sheep being in a new fenced area. If in doubt, park before the main field and walk to the slope.

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.

Mike Brewer by Geoff Collins

I am sad to report the recent passing of Mike Brewer who was a former member of the W S A some forty years ago. I know Dave Camp vaguely remembers him and a few others might as well. I have kept in touch with him via the Phoenix Club of which he was a member for many years. I would see him at club meetings but over the recent years his breathing had become very laboured. He was a very quick witted chap and could always tell a good joke.

Slope Action (or lack of) by Pete Carpenter

Due to a seemingly unfair workload attacking me from both work and home life, I completely forgot about getting the August slope bash report to Roger for the last issue of Glidepath. Sorry, but better late than never.

Whilst the workload has eased a bit recently, my feet are still barely touching the ground (unlike my gliders) due to the ongoing work I am currently doing at home. This is completing all the second fix carpentry, building wardrobes, fitting a kitchen, decorating etc, in the newly extended section of our house. Seeing the back of the actual building work about a month ago was a very welcome sight indeed, and after 5 months of chaos and brick dust I could finally clean my garage out, de-dust every single item in there and return it to its former glory of spacious garage / workshop, rather than the disgusting builders' dumping ground it had become.



The August fly-in was a success, there was a good turn out and the weather was mostly favourable, although there were some nasty patches of sink that blew through from time to time. We had a few unfortunate incidents but there were no aircraft write-offs, just minor damage. It was just nice to get out to the slope, as my own slope visits have been few and far between this year.

That said, I recently had a very brief outing to Horses in near perfect conditions. Unfortunately I could not stay long as halfway there I remembered the building control officer was due out to the house at 11am, and besides I did not want to spend too long there because I have a fairly serious 'to do' list going for the home jobs. I bundled my Wildthing, Swift and Razor into the car early in the morning (I only noticed the favourable forecast late the previous night), and was airborne by 9am.

My Razor is a scratch built EDF sport jet that I loved the look of when I first saw a picture of it on the Sarik Hobbies website. I thought it might make a good sloper (how wrong can you be?), so during lockdown, I went ahead and purchased the plan and wood pack and set to work. I slopified it as best I could getting rid of as many draggy parts and open intakes as possible. For a bit of fun I added some own-design twin airbrakes, which to my surprise worked very well despite being quite difficult to get working smoothly.

Once the airframe was complete I covered it in glass cloth and then treated the whole model as a bit of an airbrushing exercise. I had not really decided on an exact colour scheme, but I ended up making some 'tribal art' type templates from card and playing around with various designs on the wing and fuselage. My limited airbrushing skills actually seemed sufficient enough, and I was very happy with the end result .



Its maiden flight happened at Oxo, thankfully uneventful, but it has only had about 3 flights since and has spent the majority of its life hanging on the wall in my office. The morning trip to Horses was an opportunity to throw it off a hill once again in a very favourable wind, about 20mph and right up the slope; even the sheep wandered over to spectate. However, within a very short time of launching I just knew that it was never going to be the slope jet I had imagined and, rather like my Red Arrows

BAe Hawk, I decided there and then that the Razor should go to someone with access to higher lift slopes.

To be fair, the Razor does look good in the air and flies very well, but it just needs the super lift that places like the Great Orme can deliver. I feel that by keeping it hanging on my wall, I am denying it a better life. I will advertise it on the BMFA website soon, unless of course any WSA members want it as an eye-catching wall hanging!

On a final note, the track up to Horses is still in a bad but passable condition. Remember that the two huge holes at the Oxo end of the track have been filled in, so access from that end is fine.

Sadly the September slope bash did not go ahead, hopefully October will deliver the goods one weekend.

A Question of Wavelength by Roger Crickmore

As those who compete in the e-soaring events at Chalbury will know, I have a rather retro approach when it comes to model flying, as I normally appear with just my trusty Gentle Lady (admittedly with electric motor) controlled by a 35 MHz radio system. Whilst the newer 2.4 GHz systems offer a number of advantages a major issue previously with 35 MHz, the need to avoid frequency clashes, has gone away as nobody else is using it. I have sometimes said that the reason I do not change to a 2.4 GHz system that the Gentle Lady is such an old design it is not compatible with the modern radio sets!

A question though that was asked of me recently was why the 2.4 GHz systems can get away with a much shorter aerial than you need on a 35MHz system, and the answer of course lies in the physics. For our radio control systems we need the transmitter to transmit the signal in all directions and for the receiver to be able to receive it from any direction. In this case, depending on the exact design of the aerial, its optimum length is somewhere between 1/4 and 1/2 of the wavelength at which the system operates.

As you may recall the wavelength (wl) of a radio wave is by $wl = c/f$ where c is the speed of light and f is the system's frequency. Now light is very quick and $c = 300,000$ km/s (or 3×10^8 m/s) which means that it can travel 7.5 times around the earth in just 1 second. For a 35MHz system we find that the wavelength is 8.6m, so having an aerial even a quarter of the length of this would be rather impractical. Therefore the designers take the approach of making them as long as they reasonably can, which is about 1 m, and accepting they do not work at optimum efficiency. On the other hand with a 2.4 GHz system the wavelength is only 12.5 cm, so having the an aerial at its optimum length is perfectly possible.

Although the shorter wavelength of the 2.4 GHz systems makes the aeriels a much more convenient size, it does introduce the problem that in some cases the model can shield the receiver from the incoming signal. To over-simplify somewhat any wave is not greatly affected by a structure less than its wavelength which, unless you have a very large model, will be the case at 35MHz as the wavelength is 8.6m. Thus the wave will more or less not notice the model and so the receiver can always pick up the signal. However for 2.4 GHz the wavelength is only 12.5 cm which is smaller than many of the structures in a model. This is not a problem for an old school model made out of wood and other insulating materials as they still do not greatly affect the radio waves but if you have a lot of conductive materials such as metal or carbon fibre these can block and scatter the radio signals. This means that in certain orientations of the model the receiver aerial can be in a position where the signal is so weak it cannot be detected. Fortunately as this normally occurs for specific model orientations and as soon as the model is slightly rotated the signal strength increases again and so all is well. Of course even losing signal for a short time is not desirable which is why most systems these days enable you to connect two aeriels to the receiver which are located in different parts of the model, with the idea being that loss of signal to both aeriels at the same time is much more unlikely than just losing one.

Calendar

Tue 5th Dec, AGM

Contacts

The committee members for 2023 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