

### Chairman's Chat

You will recall from Trev's write up of the Farmers' Dinner in the Apr edition of Skywords, that we achieved the aim of maintaining the goodwill of the local farmers. Sites secure for another year with no site fees: job done. But reading between the lines you may also have sensed a whiff of change in the air...

We didn't hold a dinner (or Christmas Drinks) last year due to COVID-19. Instead, we issued farmers with gift vouchers to use in local stores. Aiming to keep the overall cost about the same meant that each farmer got £40. The vouchers went to many more farmers than the dozen or so that turn up to the Farmers' Dinner. It would be a lot less hassle to ditch the function in favour of vouchers, but I don't think it would be long before vouchers transposed into site fees, inflation would take over, and we'd face much bigger bills. The Farmers' Dinner is also a 'force multiplier' when it comes to goodwill amongst the community. We are seen to be generous, even though most don't accept the invitation. It's also something unique to the DHPC – I don't know of any other club that does the same. Most of us are agreed that the Farmers' Dinner represents excellent value for club members.

But it's a big commitment for the committee; especially the organiser, the sites officers and the chairman. Having caught COVID-19 (for the second time) at this year's function, I had time to ponder this, and other issues, during my period of isolation.

It's always difficult to recruit committee members and an incentive would be most welcome. It would also be nice to be able to reward them for their services over the year. At the request of the farmers, we award out annual trophies at the dinner. It somehow seems a bit unfair to invite members to collect their award at a dinner that will cost them £25. In order to address these 2 points, I proposed to the committee, at our last meeting, that the club pays for dinner for trophy winners and committee members who attend as hosts. I estimate that it would cost an additional £300 per year (or about £1.70 per member).

In the 'good old days' when hang glider pilots were in the majority, the function was well attended by members and, with a disco and other entertainment, went on into the early hours. As interest from members dwindled, we moved the location further north to focus more on the farmers. It has been suggested that we should encourage more members to participate and, to that end I anticipate a change of name to the Annual Club Dinner.

We also need to look at when we hold the event. No members will commit if there is a vague chance of flying. In the past we aimed for late February - before the start of the flying season and lambing, but a significant number of members are flying in Colombia or ski-ing. Perhaps the autumn would be better, but then we have to think about the timescale for awarding and engraving trophies.

Of course, there won't be a dinner unless we find an organiser. I'm delighted to report that Stef Sykes stuck his head above the parapet at the committee meeting. He's been tasked to come up with a winning formula for agreement by the committee. We await his proposals with baited breath. More to follow, no doubt.

Fly safely,

Martin Baxter Chairman

## **Notices**

# Windbank being used for filming 15th June. No flying.

Just been speaking with Ruth from Old Cote Farm about usage of Windbank for BOS Hang Gliding Competition. She let me know that they have given permission for "All Creatures Great And Small " to film on the site from 8am to 12 on Wednesday the 15th of June. I can't see any possibility of you weaving your way into the plot on a Paraglider so would be best to not fly the site at this time should the weather be favourable.

Regards

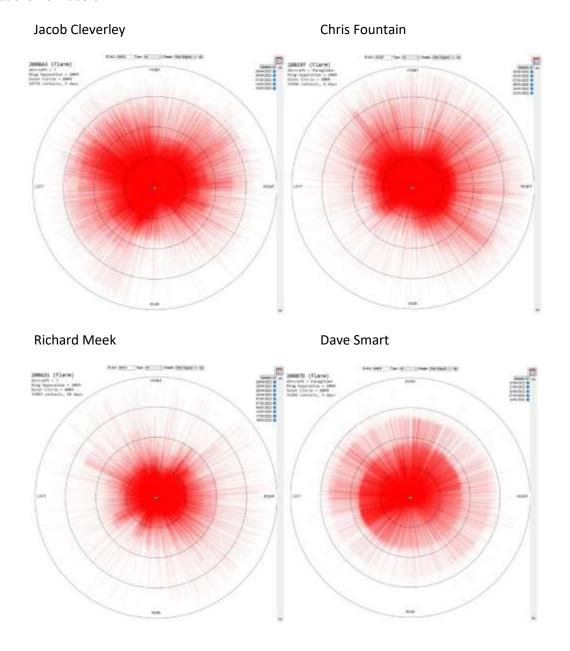
Shaun Sites South

# Flarm Vector Analysis

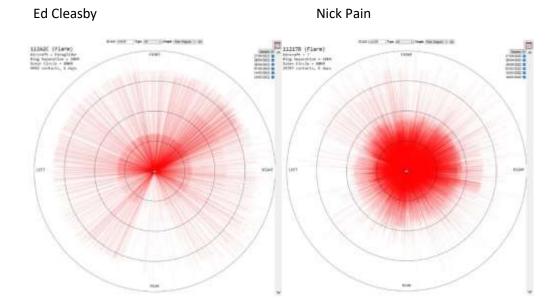
I'm still off flying with a dodgy ankle. With time on my hands, I thought it might be interesting to analyse how those new Flarm instruments, acquired with a rebate from the CAA, are performing. I'm grateful to those named for allowing me to use their data. I've only included the Flarm IDs, that I know about, for pilots who have done more than a couple of flights (not me then!).

Thanks to James Goldsborough for pointing us towards the <u>Pilot Aware Vector Analysis Tool</u> on the forum. Not sure how clear these graphs will be in the Newsletter so, for those not familiar with the tool, these polar graphs provide an overhead view looking down on the pilot with front (direction of flight) at the top of the page. Each circle represents a range of 20km (out to 80km). Each red line shows a transmission received by an ATOM ground station (contacts) and the dates of flights are shown top right.

#### First the XC Tracers:



#### And a couple of Skytraxx:



I couldn't get an output for Jake Herbert, Rob Cruickshank or Pete Logan.

I tried to do an analysis of flights in different areas of the country, but gave up because of the number of variables. The tool only analyses flights from the last 30 days, and much depends on the height (line of sight), duration and distance flown. I'm not sure, but it may also depend on the number, and location, of airborne relays flying at the time.

One motivation for this study was one of my own flights: a windy day at Stags Fell. I was surprised to see that all the red lines were behind me. I wasn't flying backwards so I can only conclude that because most of the flight was ridge soaring the only receiver in range was behind me.

My overall conclusion from the above is that our Flarm devices work pretty well. The obscuration caused by your body when the device is on your flight deck is minimal. At height, the distances achieved are more than sufficient. I couldn't find an up-to-date map showing the location of all ATOM ground stations, but I get the impression that the Dales (and Lakes) are not well served at the moment. Any volunteers to have one on their roof?

It's reassuring to know that your device is sending out a decent signal. Now we just need to get other aviators to install receivers and displays/alarms. Currently it's mostly only used by sailplanes and a few light aircraft.

Martin Baxter

# April 29th Swarth-Wild Boar The Lakes Adventure

So Friday morning started with a bacon & egg bun at the bakery, before meeting up in Eds back garden with Ed, Chris, and Tam. After some chat regarding transport and site options we settled on Chris's first choice of Swarth/Wild boar fell.

I had checked the rasp briefly before setting out, and it looked really good for a trip into the lakes, light, mainly easterly, and great star rating.

We arrived at the bottom parking with the hill in full sun, no wind and just a few clouds beginning to form. Nice gentle pace needed for the walk up, rushing does me no good, and then the first decision of the day had to be made  $\frac{3}{4}$  of the way up the hill. Was it to be Swarth or Wild Boar.

The wind direction, just gentle wafts now dictated Swarth, so bear left and carry on up.

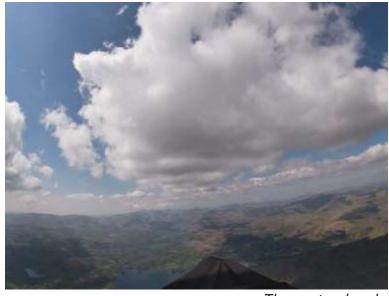
As we arrived at the top the wind had increased a little, now around 10mph, but a little off to the East. As always Chris took off first, and although he stayed up it didn't look very good, I thought I might wait a bit longer. He then shot off towards Wild Boar, arriving very low but managed to climb up, then Ed took off, then Tam, now I am the last to get airborne.

Ed and Tam had already started the crossing to Wild Boar, before I launched so I was already I bit behind, my fault for not getting on with it. As I did a few beats on Swarth, Ed and Chris were climbing to base, and off they went as I made a dart across

to where they had been.

Arriving low, well below the normal bomb out shelf, just as Ed and Chris had done, there was a little work to do to climb up to ridge height. It was working though and once at the top I could start looking for that climb out.

Wild Boar is a great name for this hill, and for the thermal that took me to base, rock and roll all the way up!



The route ahead

Now at base I was on my own, turned downwind and off towards the Howgills, a little top up to 5500ft just before the A683 then over the hills. I could see Ed and Chris above Whinfell Beacon but I felt another top up was required for me before crossing

the M6, so I dilly dallied a little over the west side until I found a small climb to get me above 4000ft, whilst they pushed on.

I crossed the M6 then hung around Birk Knott until I could get back to base. I got a nice long glide off that one, right into the lower Kentmere valley, but was down to 1000ft AGL. and even started looking at landing options.



Another cloud came to the rescue, and I was soon back at base looking across Windermere. I could have crossed straight over from this height, but it looked like a cloud street had formed over the central Lakes, so I headed off on glide to cross at the top of the lake. There was a theme developing here, as long as you could get under the next cloud, there was a climb waiting.

Loughrigg

After climbing over Loughrigg, I caught sight of the others again, they were in the Langdales. It felt like slow going but the drift had increased a little which helped, the trip over Elterwater, Dungeon Ghyll, Harrison Stickle, Pavey Arc and High Raise all at a great height was splendid, a chance to admire the view, there is something rather special about being high in the Lakes. It was Ed and Chris catching up now I was off on glide towards Keswick.

After feeling a little smug, I was getting low, really needed another climb now as the only landing options were up on the fellside, so although I had been flying the clouds, now I needed this rounded rock mini mountain in front of me to trigger, and luckily it did, back to 5500ft.



Keswick ahead



I crossed Derwent water, watched Chris go to Keswick, he had set this as goal, but it was buoyant all around. Ed crossed Keswick at height, whilst I flew over Braithwait and down the west side of Bassenthwaite.



The clouds had run out now so from 5 grand the glide out into the flats begun. This was a magical glide, smooth as silk, in the sunshine with Ed riding shotgun, I was amazed we made the 16K to the coast, helped on our way by the sea breeze undercutting the meto wind, I think.

92K for me, a PB but even more important was the trip itself, the great sky, and the superb views, how can you not love paragliding!

KEV (Av8tor)

### **Baildon Sod**



Hi Folks,

The evenings are light enough now so it's time to think of the Sod!. There's the added possibility of very little bracken this year after a chop down last winter. Keep your eyes open for notifications - it'll be on a weeknight whenever the conditions are right. The intrepid, and occasionally hapless, competitors will gather from 6pm on Baildon's vertiginous eastern flanks to perform their feats of derring do!

>From the guidebook:

Each year, we hold a fun event on Baildon Moor. It takes the form of a gliding task, in which each competitor attempts to fly as far as they can in a straight line or dog leg, to perform a stand up landing within two glider spans of a predetermined line out from the hill. Conditions should be nil wind or very light in order for the best fun to be had.

Normally washed down with fish & chips and a pint afterwards in the centre of Baildon village. No experience necessary, although forward launching is usually the order of the day. Jungle survival skills can help later in the season when the bracken takes on Jurrasic proportions!

Pete Logan

# **Progressing from Club Pilot**

With the new season in full swing it's time for Club Pilots to think about getting their tasks done and witnessed, ready for the exams which we do in the off season. Usually October / November time. The exam itself is nothing to worry about so long as you know the material and we'll be holding the revision sessions beforehand again.

Contact your local coach for advice and getting your tasks witnessed on this contact page:

https://www.dhpc.org.uk/forum/download/file.php?id=2177

Your pilot tasks are detailed here:

https://www.bhpa.co.uk/documents/bhpa/index.php?doc=Pilot Tasks.pdf

Achieving your Pilot rating is more than a piece of paper. It unlocks flying cross country in a safe way, allows you to fly in certain other countries that need a certain IPPI level. Perhaps most of all, it proves to yourself that you are progressing in your craft of becoming a better aviator.



Pete Logan Chief Coach

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# Eyam to York'ish - 30th April

Eyam was the place to be but had a short window. Climb outs started at eleven and that allowed us to be the first to escape what can be a busy and shallow site. Jim Golds could probably give more detail but the climbouts weren't happening much past 1pm even in a decent looking sky.

Lot's of big flights that day - Hamish, Richard Carter, The Polish 303 lads all getting well into North Yorkshire! Locals like Helen Gant putting in a good show too.

We were in orbit above Sheffield with the difficult section starting around Wombwell, where heavy cloud formation had led to shade out along the route. There were some stonking climbs to be had but they were fewer and farther between them. The wind



had gone west in the flats which made the goal of Filey realistic but was pushing the gaggles into the Upton Corridor next to Robin Hoods/Finningley airspace. The DSC

have this raised 500ft to 4500ft on good SW days.



My keenness for messing about near the ground slowed me down but you just get to see things closer up. It's always fascinating to see places you pass frequently from the air. I've never flown this route before so it was an eye opener to see the M1 flyover, A1, Barnsley, what's left of Ferrybridge, East Coast Mainline, M62, Wakey, Leeds in the distance .... the list goes on.

As York came into view, Martin and I were getting low. It'll be our turn for chips at Filey another day. I did get a welcome pickup from John and his daughter Jessica. He's a shorthaul pilot out of Robin Hood's and was fascinated we fly these kinds of distances. I told him we deliberately seek out the stuff he warns his passengers to strap in for. I think it's only a matter of time before we see him on the hill.

Photos: here

Pete Logan

### How do I thermal better?

How do I thermal better? This was a question that came up during our last DXCA session and it's exactly the kind of question we hope the DXCA can help with. It's a question I'm sure we can all relate to. Thermalling is very much a black art that can seem completely inaccessible as we begin our free flying journey.

I won't go into the theory of thermals in this article. There is an abundance of material available on the subject so there's no reason not to have a grasp: what is a thermal, how do they form, source and triggers etc. There is also lots of material available on the art of thermalling but I've always found a gap between the theory and practice: it sounds simple enough - circle and climb – but not so in practice. HOW is it done? And even when I begin to get a handle on it, I find others in the same thermal climb faster and higher. Again HOW?

What are other pilots doing that I am not, or doing better? It's easy to blame the wing but that's not the case – all wings have more or less the same climb performance. Higher performance wings certainly have an edge in top speed and into-wind glide but not so much in climb performance. If a pilot is climbing faster than you in a thermal then it's the pilot, not the wing.

#### And again, HOW?

Ideally, as we find in many other sports, we would have access to a training camp where our technique is observed and deconstructed, weaknesses identified with instruction provided on how to improve. A camp like this would not be a magic pill that suddenly transforms us into Sky Gods. The real benefit is we come away with a better understanding of what we need to improve and more importantly, how to go about improving it.

Unfortunately, we don't have this in our sport. Which means we need to become our own teachers. So rather than asking 'How do I thermal better' maybe we should be asking:

- WHAT do I need to improve?
- HOW do I go about improving?

Kelly Farina in his book Mastering Paragliding deconstructs thermalling into 3 core skills:

- Turning Radius ... or the length of time it takes to complete a 360 degree turn
- Carving
- Mapping The Core

I think deconstructing the skills needed in this way is essential and answers the 'What'. Without the What, we can't figure out the How.

So let's take a closer look at these skills and see if we can come up with the How we can practice them.

#### **Turning Radius**

Turning radius is how tight or wide we make our 360s. The ability to control the radius of your turn as you track a thermal is essential - the thermal moves around and you will want to move with it. Tightening/widening your turns allow you to follow the thermal in an efficient manner while still circling within it.

#### **Carving**

Carving is about how smooth your 360s are. A carved turn has minimum pitch and roll oscillations in the wing as you turn. It's as if the wing is on rails. The more pitch and roll movement of the wing, the less efficiently it climbs. Poor turn technique will result in your body swinging around under the wing and will induce these pitch/roll movements. If you ever find yourself in a thermal with another pilot who is climbing faster then they are likely carving the turn better.

#### **Mapping The Core**

The lift in a thermal is not consistent. There is usually a core where the lift is stronger, and this is where you want to be. The core moves around - your ability to track the core as you climb is called mapping the core.

Again, the pilot who climbs faster is mapping the core better. In fact, mapping the core is by far the most significant element of thermalling – a pilot with poor turning technique but centred on the core will always outclimb a pilot making beautifully carved turns at the edge of the thermal.

#### WHAT do I need to improve?

These 3 skills are the What, the likely candidates. But we still need to figure out which in particular we need to improve. Or perhaps it will be a combination.

We need to somehow analyse our own performance and identify weaknesses.

Analysing our own performance in isolation does not provide much insight. However, if we compare ourselves to other pilots, especially more proficient pilots – ideally on the same day and same site – it makes it easier to see where our weaknesses lie. Observation and track logs are the key.

#### **Observation**

When out flying, try to observe other pilots: where do they find lift and what they do then. In the beginning this is not so easy as most of your focus will be on yourself and your own flying. But as you become more proficient you will have more bandwidth to observe others. In particular, when you find yourself in a thermal with another pilot – are they turning tighter/wider than you, are they mapping the core differently. If they are climbing faster then whatever they are doing is better than what you are doing. If you observe you might see something useful or at the very least form specific questions you can ask later in the pub. Also, when we discuss track logs below, if you can remember the time/location of this thermal experience then you can look closer and compare in more detail how your flight track differs from the other pilot.

It is very common for less experienced pilots to turn too wide in thermals and they also tend to fall out the back – is this you?

#### **Gps Track Logs**

Tracklogs contain a wealth of information and analysed correctly can tell us things like:

- Are we climbing better than others do we climb faster and get higher?
- Are we turning wider or tighter than others
- How well are we mapping the core
- Do we tend to fall out the back of thermals
- Do we intersect thermals at the right place when coming in under/over other pilots who are already climbing
- How does our decision making stack up against other pilots

I use 2 approaches to analyse my tracklogs and compare them to tracklogs from other pilots. The first is to get a summary of the flight, and two data points in particular are very useful: average time to complete a 360 (this is directly related to you turning radius) and average climb rate. When I performed this analysis on my own flights some years ago I invariable discovered that my climb rate was lower and the average time I took to complete a 360 was significantly longer than more proficient pilots. Which means the circles were bigger — my turn radius was wider. I already knew my climb rate was lower because it was painfully obvious when flying but I didn't know why. I found it very useful to see hard data that pointed to my turn radius as a potential area that needed improvement. I could see not only that it was consistently wider than other more proficient pilots, but also how much wider. This gave me a focus to work on.

There are many tools available that analyse your track logs and provide various data points but only a few of them show your average turning radius. I use the following:

- **XcGlobe.com**: this is a website where you can load your igc file and it provides lots of analysis data, including the average time to complete a 360.
- XcAnalytics.fr: this is an app that provides a wealth of analysis data, designed specifically for free flying

Again, keep in mind that analysing your own tracklog in isolation does not provide a huge amount of insight. But if you compare your tracklog against those of more proficient pilots then you can begin to see patterns that need improvement.

Note: If you use XcGlobe you will find that not many pilots in the UK use this site. So you will probably not find the tracklog of one of your colleagues who was flying with you on the day. Not a problem – you can load their track log under your name and analyse it like you do your own. This way you can compare the numbers. Just remember to delete the other pilots log from your XcGlobe account when you finish because when you loaded it under your name, you effectively declared it as your own flight.

#### **Google Earth**

I find Google Earth to be by far the best tool to analyse flights in detail. With the time slider activated it allows you to step through a flight in 3D, second by second if you wish and look at it from any angle. You can see how you track through the sky compared to others. You can look down the barrel of a thermal to see where it triggers. Do you form a series of beautifully smooth and consistent circles as you climb? How well do you track the core compared to others in the same thermal. It

allows you to identify decision points, where you did something different to others that may have been a mistake. You can see how you intersect with thermals others are already climbing in, how your glide angle compares and so on.

To use Google Earth you need to gather the igc track logs of the other pilot(s) you want to compare your flight against and then convert them into the KML/KMZ format that Google Earth needs. This is not difficult – most pilots upload their logs to one of the online flight loggers – Leonardo, XContext etc. Many of these sites provide a Google Earth download option that converts the igc file for you to KML/KMZ format. For example, you can download tracks loaded to XContest and Leonardo in Google Earth format and these files include the time data which allows you to enable the time slider in Google Earth.

#### **Igc Logger settings**

In order to get the most of this analysis, you need to set your igc logger to record at the shortest interval between points as possible. Many pilots set their igc logger to record a track point every 10 or 20 seconds but this will not provide enough detail for your analysis. So, set it to record a track point at the shortest interval you can, every 1 second if possible.

#### **HOW do I go about improving?**

If you get this far and you do the analysis it's because you know your thermalling needs improvement. Chances are you will discover the following:

- 1. Your turn radius is too wide
- 2. Your carving is poor your circles are not consistent and smooth
- 3. You are not mapping the core well

Not surprising really – thermalling is a combination of all three. Or perhaps one stands out. Whatever you discover, you now need to figure out what you are going to do about it. This is the How and it's the answer we are really looking for when we ask 'How do I thermal better?'

It turns out we can practice the first 2 (Turn Radius and Carving) any day we are out soaring and we have some height. We don't even need a thermal – in fact it is better to practice in smooth air at first as thermals introduce turbulence which make things more difficult. Unfortunately, I don't know a way to practice Mapping the Core without actually thermalling. But there is a technique that may help – more below.

#### **How to practice Turn Radius and Carving**

In Kelly's book he suggests the optimum time for a 360 is 16 seconds. Is it? I don't know - on face value it seems a little too simple? Assuming a speed of 36km/h as we thermal then 16 seconds translates to a circle with a 50m diameter. If we fly slower the diameter reduces. Does this seem big or small to you? Hard to say, right? Well as it turns out, a 16 second circle is quite a tight turn, more than likely tighter than you naturally turn in a thermal. And for our purposes, it doesn't really matter whether 16 seconds is the optimal time for a 360 or not.

The exercise is to perform a series of 16 second circles, as close to 16 seconds each as possible. If you can master this and make say four 360 degree turns of exactly 16 seconds each you will not only have learned to control your turn radius but you will also have learned how to carve. It will not be

possible to make four identical 16 second circles without carving the turns. Try it on both sides. Then try changing the timing and make four 20 second circles. Finally, mix it up – the first circle is 16 seconds, the second 20 seconds, the third 16 seconds and so on. The point of the exercise is to make the circles as close to the decided timing as possible – the closer you consistently get, the better your skills.

You can monitor your progress over time by comparing your track logs in Google Earth. With your igc logger set to log every second, you will immediately see the difference in the circles you carve out. As you improve the circles will become more and more consistent.

#### **How to practice Mapping The Core**

As mentioned above, I don't think there is a way you can practice this skill without thermalling. However, if you have learned to control your turn radius and carve then the following simple rule is a good starter: - listen to your vario, as the lift drops turn tighter, as the lift increases widen your turn.

Andre Bandarra has a YouTube video that explains it well: https://www.youtube.com/watch?v=7Mw7ioso9YE&list=PLHqVk-6I8KNca4u4-6L7EPCPTA7i29xlv

The real benefit to this technique is its simplicity. In the beginning, when you are learning to put all this together, simplicity is king. You just won't have the bandwith for anything else.

But there is a lot more to mapping than this. If thermalling is a black art then mapping the core is where the real magic lies. Your wing provides a tremendous amount of information to help identify the core and this information is both more detailed and more immediate than the vario. As you start to understand what your wing is saying you will instinctively 'feel' where the better lift lies and the vario begins to take on more of a confirmation role.

It is far more likely when you meet a thermal that you will intersect it at an angle rather than head on. It's just a matter of statistics. Throw enough darts at a board and one may well hit the bullseye. But the rest will be peppered around the board. Let's say you cut across the left edge of the thermal, so the better lift will pass on your right. In this case your right wing will pass through stronger lift than the left wing and the right wing will be tipped up. You will feel this through the controls and risers on the right side. On some wings, primarily the higher performant wings, you will feel your right wing 'bite' into the lift. On lower performance wings, it feels more like the wing is being tipped out of the lift. If you react quickly enough with weight shift/control input on the right you can 'force' your way back to the right and the better lift. On the other hand, if you are slow to react, your wing will have already been tipped out to the left and initiated a turn. In this case, it might be more efficient to continue the turn right around to get back into lift. Either way, you now have a better idea where the stronger lift lies.

#### **Prologue**

This article is my attempt to answer the question 'How do I thermal better?' by putting the control back in your own hands, so that you become your own teacher. It is after all the way of our sport.

Turn Radius, Carving and Mapping the Core – these are the tools we need to thermal well but it is not the tools themselves that guarantee success. It how we use them, how we put them together

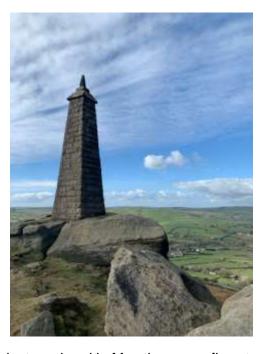
into a single continuous flow to best capitalize on the lift available. And this we can only learn by doing. Like any skill we ever learn, there are multiple layers of precision. So start simple and refine. The aim of the game is to spend as much time in the air as possible as this gives us more time to practice. Your technique does not need to be the best from the get go. It just needs to be enough to keep you flying. The more you fly, the more time to practice and the better you get.

Thermalling may continue to be a black art for some time but hopefully now you are better equipped for the job.

Safe Flying

David May DHPC Safety Officer

# **Site Success** – it only took 20 years





The last weekend in May there was five star red covering most of Britain. The sky gods swiftly departed for Tinto in the borders on the Saturday. I was left, probably not going to fly :-(. The dog was pretty sick at the time, the kids were going through the shredder with exams, work had piled up for me. In short, a lot more of the usual. In the end Jenny was well enough for Ruth to suggest I go flying. I jumped at the chance.

I head out to Sutton & Cowling Pinnacles alone but I'm happy enough, there was a usable sky and an actual XC from this "Shite Site" is a task I've been plugging away for a while. It's got to come together at some point, surely?

What makes it a shite site I hear you ask?

- The ankle breakers hidden in the ferns for half the places you might want to bottom land. It's no surprise Dougie Lampkin used to come here to practise becoming a world class trials rider in the rock garden.
- Narrow lift band. It's a long, shallow gradient up the slope and then the crags
  and boulders are a kicker at the top, so if you're soaring dynamically you
  need to be friendly with the rocks. In fact it's also known as Earl Crag to the
  local grimpers and has some fairly necky gritstone routes.
- Rotor on take off. It's a flat top, and whilst it's not as bad as Stags Fell, it has
  its moments. Last time I was there, I was ground handling to get the feel of
  conditions and was vertically lifted off the flat top by 5m or so, twice!
  Interesting.
- There's a dry stone wall right behind TO. I suppose you could treat it as some sort of arrestor / safety feature, bringing you to a stop should something go wrong with your rotory wing launch.
- The site did used to have a mad horse lady in the farm over the back. She would occasionally shout at me about how we scared her horses and how she'd single handedly stopped the RAF flying down that valley. Hint: could be more to do with the fact we're in Leeds Bradford Airspace.

• Sheep. It's usually grazed so you take off where they aren't. For your troubles, they've made sure to leave plenty of "contributions" on the grass so don't drag your wing for fear of making skid marks.

Have I put you off yet? I'm over egging it a bit and there's never been an incident there, to my knowledge. Hardly anyone goes flying there though. In fact, on the bright side, Airedale Hospital with it's A&E is barely a stone's throw away.



A small confession at this point. About a month before, I'd gotten myself a climb and it sort of petered out at about 2500ft. The sky seemed okay so I headed over the back with the promise of a retrieve from Tam should I get anywhere. Suffice to say I didn't. I was on the deck quicker than two shakes of a knat's widget. Still, it was the first I'd heard of anyone going over the back there so Pete Darwood was kind enough to put it down as a site record at an embarrassing 4.2km. I was keen to have it recorded, if only as motivation for me or someone else to do something about it.



A look on Skyways shows no one in XCLeague history has gone over the back. I'd asked a few hangies too, and they don't recall any attempts.

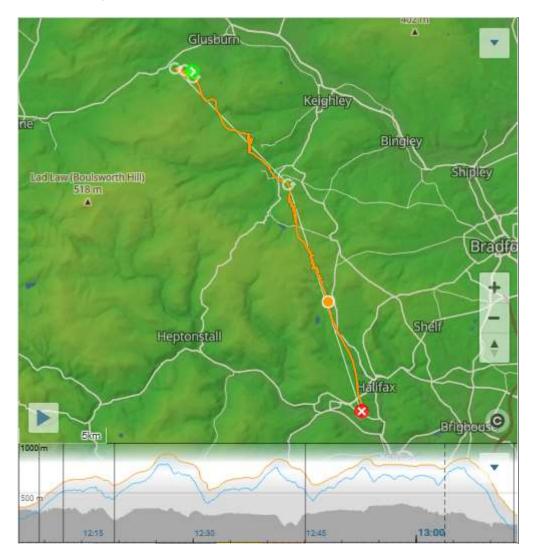
On take off the wind is to the west, so nothing unusual there. As I clip in a guy starts chatting, saying he'd almost signed up to learn once and can he take some video. This is, of course, a death knell. After bringing the wing up nicely, a weird bubble comes through and I take a roll on the ground. We agree he can edit that bit out and I recover some dignity with some settled kiting. A minute or so to get the feel of the air and I take off and soar below crag level to the west end and Wainman's Pinnacle. It's working here as the warmed air travels up from the town over fairly even and sloped rough pasture.

Clearly the climbs are coming off this end today, but it's not totally straightforward. A few pushes into wind find the best of it and after 10 minutes I'm at base.... the base of airspace that is. It's mental torture taking yourself out of a perfectly good climb to avoid an infringement. Plus you've got to do it 200ft in advance since you never know what other lift you might hit, enforcing a hasty spiral. In the end I judge it nicely and I set off 80ft under Leeds Bradford's 3000ft CTA.

A few fields go by and all too soon it's definitely time to found a climb again. I find some zeroes next to Oakworth and this slowly builds into a climb once I'm through the slight inversion at 2100ft. There's plenty of time to think about how much of a constraint I've put myself in. I need to leave climbs at about 2700ft then find the next climb by 1600ft because the ground I'm going over is over 1000ft and the thermal needs space to organise itself. It's precious little height to work with.

There's a particular set of conditions you need to fly XC from sites under airspace. You need frequent climbs so a low cloud base helps. Very lifty air that's not going to rain so a northerly wind and drier airmass is ideal. Plenty of cloud gives you signs of lift but too much and it cuts off your energy. This is the Goldilocks bowl of XC conditions. I really should have found the time to do this flight over lockdown when Leeds Bradford had relinquished its airspace and I needn't have worried about all these picky requirements.

Second climb done and a glide over to Howarth. Brontë Parsonage, home of Emily, is directly below and I realise it's going to be a very memorable flight. Flying over places I know so well from the ground is a proper treat. I can look over Keighley to my home on Baildon Moor, see places I cycled to and took the kids to play their football matches. The memory and scenery is something I'm going to have to keep in my head though, I've forgotten to bring the camera, hey ho.



I'm on the new, to me, Omega X Alps and it's behaving nicely. It's taken a bit of getting used to the firmer ride but I'm beginning to dial into what it's telling me about thermal location and the glide is definitely a bonus. I need height again and after Howarth there's a combination of rising ground, quarry and dark heather. Textbook. I climb out over a caravan park and grass airstrip. My track takes me south whilst the windsock and surrounding turbines point west. Go figure.

I top out over Thornton Moor Reservoir and am treated to birds leaving the water to join a wide circling column over a kilometre to my west. It's tempting, but I'm already highish and the direction is into wind. The view here is of the towers of Manchester poking through the hills on my right and Leeds' to the left. Time to think about strategy. My optimistic goal was Nottingham at 100km. My thinking was, once you're passed airspace at 50km, the rest is easy, right? I do seem to be on track so my next targets are Halifax, the M62 and then onto the Huddersfield gap - a slot of airspace that will give me 500ft extra to play with. Oh the luxury!



There's a sustaining climb off Ogden Reservoir Country Park and I take it knowing descending ground is coming up. I leave, heading towards a reasonable cloud and rising terrain in the distance, but that is it. It's sink all the way, and when you've only got a thousand feet to play with you only need one hand to count the minutes until you're on the deck.



I pick Savile Park between Halifax and Salterhebble to land in as it's plenty wide and safe. It's next to the Wainhouse Tower and it seems fitting to end the flight at a tower having begun that way. A little over an hour in the air, 22km open distance and five climbs. A check of the tracklog confirms I wasn't in airspace. I've extended the site record to something acceptable now.

https://xcleague.com/xc/flights/20221965.ht ml?vx=0

I do like my retrieves and there's three or four people come over to chat as I pack away. They all got a recommendation to look Dean up at Active Edge. A bus and train later, I trundle through Bradford amidst shoppers, gamblers and people doing a bit of afternoon preloading/heavy drinking.... it probably makes the shopping more bearable.

Retrieve Photos including Piece Hall in Halifax.

#### https://photos.google.com/album/AF1QipMsX843KiP90dLAjF3xfa8Q7UFzZnw8gkOpO41y

The train drops me five kilometres from the hill and I get a pace on with my thumb out. I'm lucky and just at the foot of the big climb up Jamie and his son, Travis, stop to ask where I'm going. He was just on the hunt for an ice cream for Travis but was game to take back up the hill - that's another student coming your way now Dean! It rounds the day off nicely and I'm home in time for tea and to watch Obi Wan Kenobi with the lad.