

# SKYWORDS

Jan/Feb 2022



# Chairman's Chat

It's a good time to review the year that's just ended, remind yourself of lessons learned, and set yourself some objectives for the year that's just started; but is your glass half empty or half full?

The year 2021 was pretty dreadful in our household. Like everybody else we started off in lockdown. Going through a series of root canal treatment appointments, with both dentist and assistant wearing respirators, is something that will stick with me for a while. Then, as avid readers of this column will know, my wife was diagnosed with breast cancer. She was just recovering from the surgery when she slipped a disc, from which she is still recovering. Her immune system is a bit shot and, thanks to 3 snotty grandchildren we spent most of November with non-COVID colds and flu. For me, the year finished in the same vein as it started: I tested positive for COVID-19 shortly after receiving my booster jab, and spent the flyable part of December in isolation. It's very easy to dwell on the negative side of things.

Those of us who maintain logbooks can look back on some of the more positive aspects of the year. My first entry was back in March when I took my wing to Wetherby Race Course, in an attempt to remind myself how to paraglide, with some ground handling. When it came to proper flying the COVID-19 situation led me to focus more on local tasks than open XC. I take every opportunity to attempt [NCS](#) (or [DFC](#)) tasks. I find them particularly useful if I want to maximise my airtime and minimise the retrieve issues. I recommend them to CPs (and pilots) who want to use their expensive instruments and practice flying an actual task.

Whilst my loyalty is to the Dales, my local site is Model Ridge (NYSC members only) and I've had some good flights from there, and the adjacent Carlton Bank and Cringle, this year. One of my best memories is slope landing near the bottom of Cringle, re-launching into a thermal and then flying back up again. On another occasion, having had a bash at the grid challenge, I flew to Rosedale Abbey ([about 30k](#)) in the safe knowledge that Dave Bradwell would come and pick me up in my car.

Tailbridge has a reputation as a poor XC site. The trick is to get onto Mallerstang, either by flying there or walking up. It's like the lost world. Flying along the ridge is spectacular and makes getting away much easier. If you haven't done it yet, you really should.

My [second best XC](#) of the year was from Cow Close Fell. As I walked up the sky was full of lenticular clouds, and I only really continued for the exercise. However, Jake, Chris and David took off just before I arrived. Conditions in the air were pretty unpleasant and some of us left the hill just for some respite! After a slow and low drift over Settle I met up with Chris and, after some sea breeze convergence, we spiralled down to meet Jake in a field near Chorley for 70km. Thanks to David and Jake for the retrieve. (Jake spent the whole journey trying to avoid hearing the results of the football. England beat Germany 2-0 to get through to the quarterfinals of the Euros.)

I've been to Dodd Fell a few times, but [my best XC](#) this year was from Wether Fell. I flew most of the way at my own (slow) pace but again met up with Chris, this time near Harrogate. We landed near Elvington. I'd bettered my previous PB of 98.9km by 0.3km. It's only a number, but I really must crack 100km next year.

Other memorable flights were the convergence over Ribbleshead, the simple but very satisfying [DFC task from Brantside to Hawes](#) (thanks Ges), and completing my first ever [NCS task at Windbank](#): goal!

All told I'm surprised to discover that I've clocked up over 45 hours of airtime. Not bad for a 'dreadful' year without any overseas trips. This year: crack 100km in a single flight, a 300km mug (6 flights), and taking off without any knots in my lines. Overseas trip? Hmm, we'll see.

How about you?

Fly safely,

**Martin Baxter**  
Chairman

**Apology from Carl Maughan (Editor) – The following *should* have appeared in the December edition as part of the Committee reports, unfortunately I overlooked it, sorry Pete.**

# It's not all about the numbers

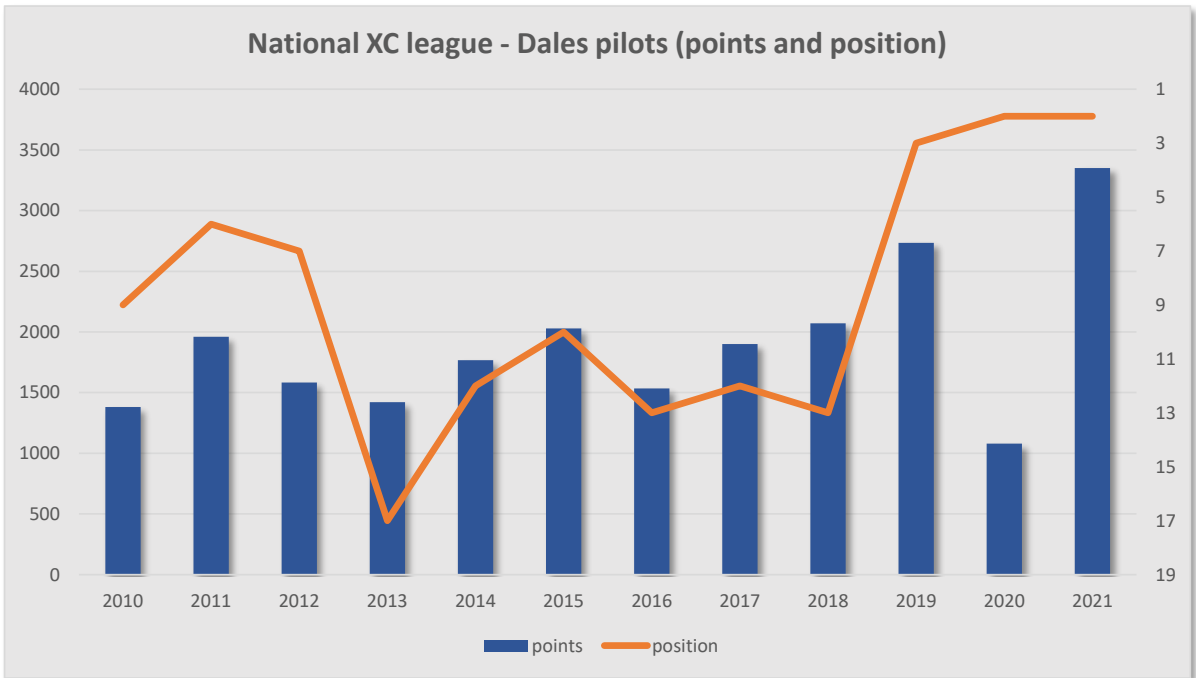
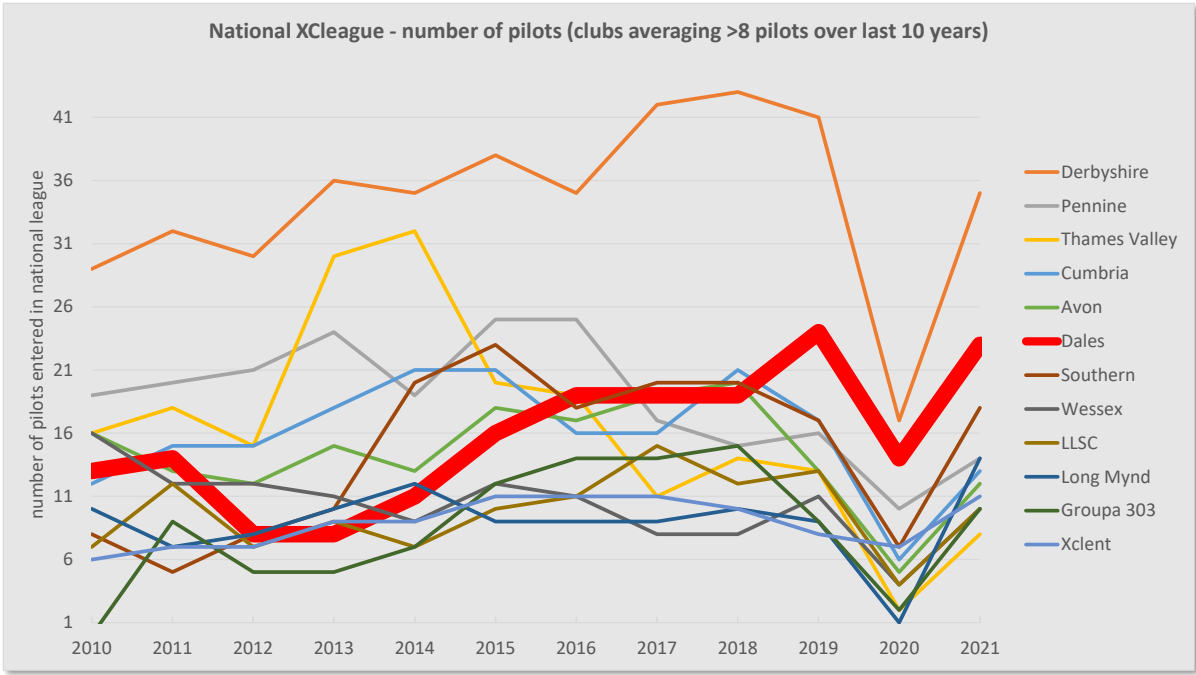
It's a dreary November day and it can sometimes be difficult being positive about paragliding at this time of year, especially given the gravitas of humanity's current crises that we are inextricably linked with. However, a quick pinch is all it takes to bring back memories of a stunning year of UK flying, enough even to sustain through the dark months ahead.

We were allowed out to play from the 29<sup>th</sup> March, and by the 16<sup>th</sup> April even the tardy UK XC league had caught up with our re-discovered freedoms. And by all accounts April was a cracker, with more than 20% of the XC league points for the year coming from the two weeks after opening alone.

After super April had passed, business was more or less as usual, with a good smattering of top XC days throughout the year, even into the depths of September. The individual achievements are far too numerous to detail, with personal bests, goals and bucket list flights, amazing convergence, beach landings and new lines spread throughout the year from a wide variety of pilots. Some of these can be read about in previous editions of

Skywords, and include multiple successful three peaks completions by a single pilot, an amazing new Semer site record, and a first-time-to-the-coast/first-personal-best-in-20-years/100km combo.

What is necessary to dwell upon however is our standing as a club – and the answer is, quite frankly, we are awesome! We may have some of the most spectacular flying landscapes in the country but given its width at our latitude and the resultant impacts of the sea breezes, along with the height of our hills, cross country flying in the Dales is not always the simplest of propositions. Despite these constraints, we have the second highest number of pilots entered into the national XC league of any club, we have the highest number of points we have ever achieved, either in the Dales league or nationally by Dales pilots, and for two years in a row we are the second ranked cross-country club nationally.



However, that is not all, there is more! For the first time this year there has been a UK XContest (<https://www.xcontest.org/united-kingdom/>) which brings the support of a great existing platform, automatic flight uploads, more tolerance to igc format issues, operational all year, and keeps it simple with no declares. Despite being only in its first year, the uptake has been great with pilots from 29 different UK clubs registering. And what is more, the Dales club have absolutely stormed it, running away with a convincing victory!

Number of scoring entities in this category: 29

★ Flying Clubs :: XContest UK 2021 ▼

1. <a href="#">Dales HG &amp; PG Club</a>	2849.45 p.	
2. <a href="#">Avon Hang Gliding &amp; Paragliding</a>	2053.49 p.	
3. <a href="#">Malvern Hang Gliding Club</a>	1525.66 p.	
4. <a href="#">Pennine Soaring Club</a>	1471.36 p.	
5. <a href="#">Wessex HG and PG Club</a>	1233.78 p.	
6. <a href="#">Southern Hang Gliding Club</a>	1115.50 p.	
7. <a href="#">UK Armed Forces Paragliding Club</a>	1048.37 p.	
8. <a href="#">Derbyshire Soaring Club</a>	977.61 p.	
9. <a href="#">Sky Surfing Club</a>	962.66 p.	
10. <a href="#">Aberdeen HG &amp; PG Club</a>	919.20 p.	
11. <a href="#">North Yorks Sailwing Club</a>	906.10 p.	
12. <a href="#">South East Wales HG &amp; PG Club Ltd</a>	805.37 p.	
13. <a href="#">North Devon HG &amp; PG Club</a>	629.29 p.	
14. <a href="#">Thames Valley HGC</a>	591.52 p.	
15. <a href="#">Devon &amp; Somerset Condors</a>	529.70 p.	
16. <a href="#">Dover &amp; Folkestone HGC</a>	440.14 p.	
17. <a href="#">Mid Wales HG &amp; PG Club</a>	437.19 p.	
18. <a href="#">Lanarkshire &amp; Lothian SC</a>	432.46 p.	
19. <a href="#">South West Wales Soaring Club</a>	379.68 p.	
20. <a href="#">XClent Paragliding Club</a>	345.16 p.	
21. <a href="#">Peak Soaring Association</a>	183.48 p.	
22. <a href="#">Dunstable HG and PG Club</a>	159.81 p.	
23. <a href="#">Cumbria Soaring Club</a>	159.06 p.	
24. <a href="#">Highland HG &amp; PG Club</a>	108.74 p.	
25. <a href="#">Scottish Mountain Paragliding</a>	87.50 p.	
26. <a href="#">Sir George Cayley Sailwing Club</a>	78.92 p.	
27. <a href="#">Long Mynd Soaring Club</a>	62.94 p.	
28. <a href="#">XC Junkies Club</a>	37.41 p.	
29. <a href="#">Kernow HG &amp; PG Association</a>	34.44 p.	

So thank you to everyone for making the Dales such an amazing club, and massive congratulations for all who achieved personal bests, goals or bucket list flights, whether you are new to the sport or a seasoned veteran. Credit is due to all for once again surviving a strange post-lockdown season, with remarkably few incidents, and a huge slap on the back to everyone who has helped develop the club into the enviable position it is now in. This includes multiple supportive groups of pilots scattered around the Dales, home-grown experts stepping up as speakers for the social nights, top pilots and coaches that are approachable on the hill, a hard-working committee, and not to forget of course an abundance of talent and dedication. All that remains now for the 2021 season is to tot up the numbers and see who won what prizes and which successful pilots have earned a coveted XC mug.

**Pete Darwood**  
Competition secretary

# General Notices

## Club Harness Hanger

The club harness hanger is available for loan. It's better than just a couple of ropes in the garage because it has speed bar attachment points and also allows weight shift.

Contact [coaching@dhpc.org.uk](mailto:coaching@dhpc.org.uk) to pick it up. I'm based in Baildon.

**Pete L.**



## Cover Photo

Taken by Carl Scragg's from Wherside looking towards Ribblehead Viaduct, 19-12-2021.

## Next Edition

As January is a slow month I've made this a joint Jan/Feb issue, therefore the next edition will be March issue, which will be out at the end February (sounds like something from Ladles and Jellyspoons)...

**Carl Maughan (Editor)**

# Dales Hang Gliding and Paragliding Club - AGM

## Notes of Annual General Meeting 2021

Held at The Horse and Farrier, Otley. 8pm December 2nd

### Attendance

11 committee members present (apologies from Richard Meek, Rahul Basu and Carl Maughan).

6 members present (apologies from Adam Cox).

### 1. Previous Minutes and Actions

Weather Station, Wether Fell. The station is up and running.

### 2. Adoption of Reports from Committee Members

Committee reports were made available on the members only section of [the website on November 24<sup>th</sup>](#) .

Resolved: Reports accepted.

### 3. Approval of Financial Statement / Balance Sheet

The Treasurer's report was made available on the [website](#) on November 11<sup>th</sup>.

Resolved: Report accepted

**Action:** In the light of continued uncertainty in the economy, and rising inflation, committee to revisit target for working capital.

### 4. Appointment of Auditors

The committee remains of the view that appointing auditors would not be value for money. The position remains that any member can recommend an "informal" audit if they so wish.

### 5. Approval of Subscription rates

**Proposal:** That membership fees remain the same (£25/£22.50 for prompt payment) and that contributions to the Flying Fund remain at 15% (approx. £3.75 per member).

Resolved: Proposal accepted

### 6. Revision of Club Rules/Constitution

None

### 7. Proposals from members

None

## 8. Election of Officers

### Proposal:

Chairman – Martin Baxter  
Secretary – Mark Morrison  
Membership – Rahul Basu  
Treasurer – Dave Bradwell  
Safety – David May  
Chief Coach – Pete Logan  
Sites (N) – Simon Tomlinson  
Sites (S) – Shaun Pickard

Website – Alex Colbeck  
Newsletter – Carl Maughan  
Social – Stef Sykes  
Library – Joseph Edmunds  
HG Rep – Trev Birkbeck  
PG Comps – Peter Darwood  
Trophies – Richard Meek

Resolved: Proposal accepted

## 9. Any other business

The Chairman noted the club's thanks to Rosie Ireland for her time as Social Sec, particularly during the pandemic when club nights moved to remote meetings.

Next meeting: Thursday 1<sup>st</sup> December 2022

**Mark Morrison (Tam)**

*DHPC Secretary*

3<sup>rd</sup> December 2021



# Dales club coaching course

Last call for the Dales club coaching course. We've got 24 attendees, a good crowd but space for one or two more.

It'll take place the weekend of the 19th & 20th February just north of Settle at the Knight Stainforth site.



Don't worry about fees, the club will pay the BHPA so long as you become or continue as a Dales Club Coach. Your drinks bill is your own though :-). We'll have an evening meal there too.

Whether you're an existing club coach who needs to refresh your knowledge or new to coaching but willing to help out your fellow flier with mentoring, advice and confidence, this course is suitable.

***Pete Logan***  
**Chief Coach**

# Distribution Update

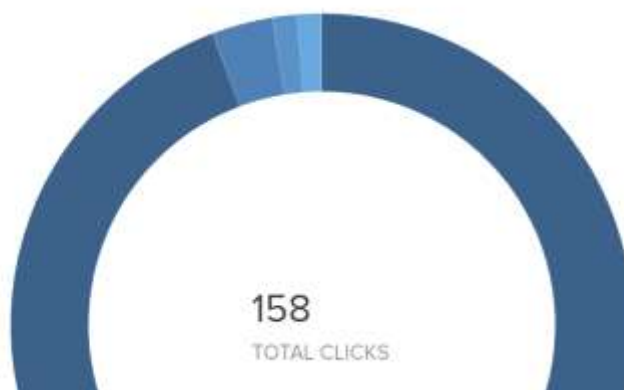
Last month we decided to run a little experiment and track the volume of downloads of Skywords, partially as an indicator of interest. Now I accept that downloads are not the same as reading, but you have to start somewhere... I thought I should report back the results.

Just to note, when I tested this, multiple downloads didn't count multiple times, but I'm not saying that this is entirely scientific as I didn't exhaustively test. In addition, this only tracked the number of users that followed the link in the email, and thus excludes direct downloads from the website.



It seems that most people downloaded on the day of issue (23<sup>rd</sup> Nov) - Poisson distribution anyone?

## LOCATIONS



United Kingdom	149
United States	5
Korea, Republic of	2
+2 more	2

[One of the "more" was Peru; I could not see the other]

As was stated in the notification email for the December issue, only anonymous data was collected, and this was/is automatically deleted a month after collection by the platform we used (bit.ly).

**Carl Maughan**  
Editor

# Thermals... (Part 3)

## About this article

Will Gadd, in a series of three articles, shares his thoughts on thermals and thermalling. This first part deals with the way thermals form and how they're released from the ground.



## Pilot profile

Expert. Has held many site, state and national records.

Has also held one world record. Paragliding straight distance XC.

In 2002, 423.4 km - Zapata, Texas, USA.

Vol bivvied 800km across the North American Rockies with Gavin McClurg over 35 days. National Geographic 'Adventurer of the year 2014/15'

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## Will Gadd summarises his three articles

The crux of cross-country flying often lies in correctly answering the question, "Where's the next thermal?" If you could answer that question correctly even 90 percent of the time then life would be very, very good. I think it's key for every XC pilot to develop his or her own system for understanding thermals, then continuously refine it. Only in this way will the pilot actually learn something with each "success" or "failure." I often hear students in clinics I teach say, "Ah, I sort of knew that, but this simplifies things a lot." That's the goal: To have a simple, clear system that you can refine each season to produce better results.

I broadly split my thermal-prediction model into two parts: ground-based thermal prediction ideas, and sky-based thermal clues. This article is my attempt to explain to myself and anyone who finds it interesting how thermals form on the ground and how to find them efficiently, part two will deal with the sky, part three with staying in and flying thermals.

Part 1 - Collectors, Wicks and Triggers, on the ground

Part 2 - Thermals and Clouds, deals with the sky

Part 3 - Thermalling technique, staying in and flying thermals

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## Thermals part 3 - Thermalling technique

### Thermalling technique introduction

My favourite part of flying is undoubtedly thermalling; in fact, thermalling may be my favourite thing to do in life. There's nothing like hooking a sharp-edged, positive

ripper of a thermal and riding it upward for a couple of miles. My least favourite part of flying is also thermalling; those days when everyone else goes up flying straight and you hit the deck like a dropped park bench--repeatedly. On those days you're glad you landed alone so no one else can hear you scream. The following is my latest "thermallng system." I hope it helps you develop yours.

## Thermal theory

A little more thermal theory is useful to understand how to fly them. I believe thermals close to the ground are often quite small and relatively violent. As they rise they tend to smooth out and expand. Pressure also tends to influence thermal formation; high-pressure days tend to produce smaller, sharp-edged, "punchy" thermals. Lower-pressure days can produce very strong thermals obviously, but they tend to have mellower edges and be larger in size.

The day's lapse rate also influences thermal strength; a hot day with a very strong lapse rate will produce stronger thermals. Think of a very warm piece of air rising out of a collector on a day with a strong difference in air temperatures between the ground and say 5,000 feet above it. A thermal will rise quite quickly in this situation. An inversion is the opposite, and not surprisingly thermals usually stop or at least slow down at inversions.

The above factors (and hundreds more but this is a start) give each day its thermal "profile." If you launch on a clear blue day (indicating high pressure) with a good lapse rate (you checked the day's soundings), then you might expect sharp-edged, strong thermals. If, however, the sky is filled with soft cumulus and looks somewhat hazy due to moisture, then you might expect softer thermals. The first thermal of the day provides some good clues about what's happening; if it rips you upward and all you have to do to stay in it all the way to base is turn a bit then you're off to a good start. If it's small and difficult to stay in then ends abruptly 1000 feet later and you can't take it any higher, then you know the day will be more difficult.

I take a mental note of three important characteristics with each thermal I use during the day. What is my average climb rate? Not the spikes, but the true climb rate as expressed by a 20-second average? How high do I get before it totally falls apart, and are there any altitudes that seem tricky to keep climbing through? And finally, what are the size and drift of the circles I'm making?

The climb rate tells you what to expect as the day progresses; climb rates tend to improve until late in the day, and thermal size also tends to increase as the day wears on (sink too unfortunately). If you're getting solid 600fpm climbs, then it's probably not worth stopping in 100fpm on a glide unless you're low (anything going up when you're low is great). The peak thermal altitude is also useful; if you are getting to 6,000 feet AGL consistently but a strong thermal suddenly "stops" at 4,000 AGL then you've probably lost it and should search for it. However, if the thermal stops at 5,800 feet then it's most likely done and time to go on glide. Remember that the peak altitude of the thermals should increase as the day progresses. On good days in Texas it's not uncommon to see thermals in the morning only reach 4000 AGL, then 6000 AGL at noon, 10,000 at 2:00 p.m. and 14,000 at 5:00 p.m. This progression is generally less in the mountains but still observable.

Finally, the size and drift of your circles at various altitudes also tells you what to expect on the next climb and information on wind speeds aloft. This tells you what

angle your thermal will be flowing from a collector so you can intersect that line I (note-very strong thermals will have no problem pushing the wind around them like a bridge abutment in the river).

## Coordinated Circles, not Swings

OK, so you're flying along and your vario starts beeping with the good noises. What to do? First, did your glider surge forward or fall back behind you just before the beeps? If it went behind you then you're probably dealing with a "gust." Wait and see if the beeping continues or goes back to sink. If it's a thermal and the beeping increases, turn. I don't worry too much about which direction; if one side of the glider is noticeably more pressurized or higher above you, then lean meaningfully in that direction and pull on the brake smoothly. How much pull? Higher pressures in your glider indicate a stronger thermal, meaning you can pull harder you can. However, the most common mistake in thermalling is to pull too aggressively on the inside brake. When you pull too hard on the inside brake your body tends to swing to the outside of your turn in a small wing-over. Then your body swings back under the glider, you lose the turn and fly straight out of the thermal. Many pilots then crank another wild-ass turn to try and get back into the thermal; I flew this way for about five years before getting it figured out.

What you want to do is fly in a "coordinated" banked turn. This is like riding a bicycle; you and the bike are at the correct bank angle for your speed and the sharpness of the turn. One of the most common problems pilots have is maintaining a consistent circle while thermalling; I expect you know what I mean... The correct technique is to start a turn with a smooth, controlled lean and simultaneous progressive inside brake application. The glider will bank up, your body will follow it, and due to centrifugal force you will continue to stay outside the glider's circle and smoothly ride the thermal up. Jerking the brake instead of applying smooth increasing pressure will just swing you to the outside of the glider--then you'll swing back under it, repeat. The glider will also remain over your head in a true coordinated turn; if it falls behind you, reduce brake. If it threatens to surge in front of you, apply a quick correction while maintaining your lean and turn.

If you can't figure out what I mean, pull on one brake sharply and release it; you'll swing out from your glider then back under it, usually with an oscillation or two as a bonus. Then try leaning hard for a second or two then go back to neutral lean; you'll swing out to the side of your glider then back under it, but not as much. Now smoothly lean, pull gently and progressively on the brake and hold it; you'll enter a gentle spiral dive or circle, same thing. This is what you want.

Airspeed and bank angle are directly related; the higher the bank angle, the more airspeed you need to keep the turn coordinated (think of a spiral dive). The lower the bank angle, the less airspeed you'll feel on your face. Thermals are seldom perfectly consistent; this means you will have to continually adjust your brake and lean to maintain a coordinated turn. If your airspeed starts decreasing and the glider levels out, lean a little more, let up on the outside brake a little bit, and increase your airspeed and bank angle. If your air speed increases suddenly, lean a little less, pull a bit more on the outside brake, and maintain your bank angle. If you can learn how to thermal in a coordinated bank then you are well on your way to thermalling efficiently.

## Centering: The mental map

OK, so your vario is beeping like mad; how long do you wait before turning? If the day's thermals are small and you're low, start turning immediately after you're sure you've hit something (not just a gust). Rules of thumb about waiting two seconds etc. are meaningless in my experience. You've found lift, initiate a smooth banked turn and see what happens. If you climb really well for a quarter circle and then start sinking, open your circle up a little bit in the direction you found the best lift then tighten as the lift increases; notice the pressure in your wing and how your butt feels in the seat, not just the vario beeping, these are critical clues.

Listen to the noise in your ears as well; with practice, you can actually hear the different air flows as you fly through lift or sink; if you can't hear the air then get a new helmet. At some point in your circle everything will add up to the best lift as defined by your vario, wing pressure and lift under your butt. If you're flying a coordinated 360 then it's relatively easy to develop a mental map of where the best lift is in each 360; don't worry about the ground, but where you encounter the best lift within each circle. Try to develop a "mental map" of what's happening in each 360.

To fly toward better lift, maintain a coordinated turn, just reduce the bank slightly as you come back around the 360 and move the center of your circle over a little bit toward where you got the best lift. NEVER STOP CIRCLING. Once in the best lift, tighten the circle up slightly while maintaining a coordinated turn. Perhaps you get solid lift for half the turn, general sink for half the turn. Move the circle in the direction of the best lift again. Now you get solid lift for three quarters of the turn and less lift for one quarter. Move it again. Now you're climbing solidly for the full revolution of your turn at +400 fpm average, but one portion of your circle is going up at +600 and another at only +200.

If you weren't in a coordinated turn, and most pilots aren't, this would probably be due to the oscillations inherent in thermalling in an uncoordinated turn and you would not have a clue what's actually going on. But you know to thermal in a coordinated manner, so you move your circle toward the +600 and eventually lock in a perfect 1000fpm climb all the way to base.

Irregular thermals may give irregular "instantaneous" readings on your vario, so focus on getting the best average climb rate that you can. Hang gliders and sailplanes can use all kinds of funky ovals and figure-eights to get better average climbs, but I have found paragliders climb best flying coordinated, continuously adjusted circles (or straight if the thermal is big enough!).

## Circle Size and Bank Angle

I find I thermal with 30-45 or more degrees of bank on days with small, strong thermals, 15 to 30 on lower pressure days and almost flat on days with light, wide thermals. The extremes of bank angles come in dust devils (almost vertical) versus flying straight and flat while climbing like mad under a big cloud; somewhere between these two extremes is the correct angle for your thermal on that day. Every glider responds differently to brake force and the amount of lean; what works for one pilot on his glider usually has little to nothing to do with yours. However, every glider will circle in a coordinated manner, and the feeling is unmistakable once you get it.

Here are a few scenarios to help pick bank angles for thermalling. Say you're flying along in -600 fpm and suddenly you're screaming up at +800. You turn, then go down at -400, so you move your circle toward the +800 but can't lock it in despite continually re-centering your circle. You probably need a higher bank angle and smaller circle. If you're very low in a small thermal, you may only be able to get half a turn in. Do your best to just improve how much of each circle you spend in lift, you'll lock it eventually as you climb.

Another scenario: you're flying along in -600 when your sink rate starts to decrease smoothly to zero sink, then +200, then +300. I would keep flying straight until the lift starts to decrease, then initiate a relatively gentle bank and center on the best average climb rate. A relatively gradual, consistent rise in your climb rate is a sign of a large thermal. Often you can find very strong cores in large thermals that will offer much higher rates of climb, but in general the larger the thermal, the less bank angle the better to maximize your climb rate. Some bank angle is usually good; a glider won't turn in a coordinated circle without it, but you can fly in a coordinated turn with equal brake using lean; watch a good pilot fly and you can tell he or she is often controlling the glider primarily with lean and modest adjustments to the outside brake.

There is no correct number of pounds to pull on your brakes while thermalling or distance to pull them down (1/4 brake is meaningless across a range of gliders), but there is a correct amount of brake to pull and lean to maintain a coordinated turn. It's like riding a bike; no one can tell you how to do it, but you stay upright when it works. I generally thermal with roughly twice the amount of brake pressure on the inside brake than the outside, and adjust my turn primarily with lean and the outside brake. You will probably do it differently, but know a good coordinated turn when you hit one.

Don't change directions when thermalling, especially when low. There are three good reasons for this; First, changing directions messes your coordinated turn up and you have to fly straight for some time between turns which usually takes you away from the lift (all directions but one lead away from the lift...). Second, you lose your mental "map" of where the best part of your circle was. Third, the direction change will cause your vario to beep in all kinds of interesting but non-helpful ways. It is almost always better to simply move your circle over toward the better lift than try to switch directions and fly toward it.

If you're having a hard time maintaining a coordinated turn, try flying a bit faster; use more lean and less inside and outside brake. Many pilots try to fly a perfectly flat circle; in truly massive lift this works well, and your glider may have its best sink rate with a fair amount of brake on. However, I find flying a bit faster with a mild bank often enables me to lock in the thermal's best lift. Don't confuse what works well while ridge soaring with what works best thermalling, it's a very different game.

### **What do to do when you lose the lift**

First, know if you're at the top of the thermal or not. If every thermal so far has ended at 6,000 AGL and you're at 5,700 then forget about it and go on glide. But if you're climbing well at 3,000 AGL and lose the thermal then it's time to go into search mode. If there's any wind at all, the thermal is probably either directly down or upwind of you. The first thing to do is expand the size of your circle and pay attention to your mental map. If you were climbing at +200 fpm and then start sinking at -600 on the upwind portion of the 360, open the circle up back downwind. If the sink improves to -400 and then -200, move it even more downwind. If nothing

good happens, try moving upwind; again, an improvement in sink is as relevant as finding more lift, work toward the area of lesser sink. Also pay attention to your groundspeed; it will generally increase as you follow the air flowing into a thermal, but decrease if you're bucking the wind flowing into a thermal by flying away from it (remember that thermals, especially when low, pull or entrain air into them). If I'm low on windy days I tend to fall out the upwind edge of the thermal. If I'm high on a windy day I tend to fall out the downwind edge of the thermal. I have no idea why, but that's how it works.

I've seldom encountered thermals that are smooth cylinders from the ground to base; the trick is to follow your vario, wing and seat pressure up in the best lift with continual gentle adjustments to your coordinated circle.

### **More Clues for Better Thermalling**

If the outside of your wing loses pressure suddenly and ruffles or takes a mild collapse, you've just found a relative difference in lift. Perhaps you're in +600 and your outside wing just hit some +50; you want to move your circle away from the area you just took the turbulence in and toward the better lift. If you're thermalling in a gaggle and see someone take an outside wing deflation ahead of you in the circle, then it's probably worth tightening your circle away from that area and then opening it slightly to fly toward the better lift, tightening the circle as you encounter better lift. Most pilots tend to fly the "pattern" in a thermal rather than really watching the climb rates of the other gliders; if everyone climbs better in one half of their circle than the other, move your circle toward the better lift; you'll climb above the other gliders quite quickly using this tactic. If someone is out-climbing you off to one side then move your circle to them; there's no heroism in climbing slowly by yourself.

If you see the glider in front of you in a gaggle start climbing like mad, you may want to start tightening your circle immediately so you are in a higher bank angle as you hit the rising air and can "grab" more of it; again, fly the thermal, not the other pilots.

Look for pollen, plastic bags, bugs and other debris in your thermal. Birds in general and Swifts in particular will almost always be in the best part of a thermal; follow them immediately. Swifts and other small birds seem to eat the bugs that are drawn into thermals; if you see a group of them swarming upward, jump in with them even if doing so requires a short glide. Because thermals are pulling air into them, trash often automatically centers itself in a thermal; I've climbed thousands of feet in the company of newspapers or other debris.

Some days produce thermals that seem to want to spit you out; most of the time I've found that this is due to flying with too large a circle. Think of a spout of water shooting upward; if you stick your wing into the center and keep your circle within the column, you'll go up. But find the edge and you'll lose pressure on the outside of your wing. This creates drag, you lose your bank angle and tend to get "pulled" out to the side.

Try flying with your vario turned off; Chris Mueller and many other top pilots often fly long distances without their varios ! I don't want to get too esoteric here, but how your glider feels in lift becomes clear if you focus on the clues. Turning your vario off forces you to pay attention to what's really happening with your glider in different currents of air. I've learned a lot in the last year by playing this game, especially in gaggles where I can watch other gliders.



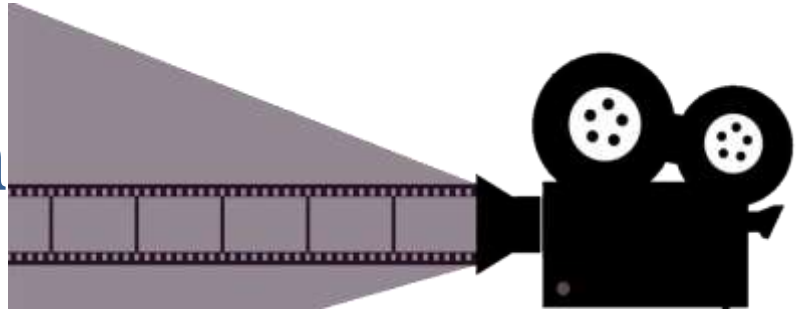
The smoothest air is often right in the core of a strong thermal, and your glider will be more pressurized and stable if you are flying a higher bank angle; if I'm climbing quite fast, I know that the edge of the thermal is likely to be quite turbulent. I've never flown away from a very strong thermal as I know I'll hit turbulence doing so; the best thing you can do is lock into the core and take it to base.

The most extreme variations between sink and lift tend to be below five hundred feet off the deck; you're flying along in 600 down and suddenly you're ripping at 1000 up, then falling out of the sky again. However, the best true average climb rates tend to be higher in the thermal until it cools to the point where it won't give you any more lift. I often will see spikes of over 1500 fpm low to the ground on days where I can't get more than 600fpm climbs on the 20-second averager. A thermal's real climb rate is what you can get out of it on the averager, not the "spikes."

I often hear pilots say, "Dude, I got 2000 fpm today!" They are almost invariably referring to the lift spikes and not their true rate of climb. The only place in the world I've seen true 2000fpm climbs is the Owens Valley in July, but crank a hard uncoordinated turn and you can easily create your own 1000+fpm "thermal" as your vario swings up and beeps happily; this is a lie, but many pilots will believe it and keep creating their own thermals with wild turns where there is nothing.

Finally, all of the above writing is just my own theory based off sailplane books, conversations with other pilots and personal experience. What really matters is your own theory; question it and refine it continuously for best results. If someone out-climbs you in a thermal it may be due to their glider, but it's much more likely that they did something you didn't. Don't curse yourself as they ascend faster. Instead, try to figure out why. Are they using larger circles or smaller? Did they move their circle into better lift and you didn't follow? I don't believe anybody is born a better pilot than someone else, but some pilots do think about what they are doing and try to do better. I look forward to trying to do better this season, and wish everyone the best of luck! And, in the end, the best pilot is the one having the most fun.

# DHPC Film Competition 2022



To be held on our **first social night** of the year, being the **13<sup>th</sup> of January 2022**, at the Horse and Farrier public hostelry in the fair town of Otley.

Being of a too newbie nature to have experienced such an event historically, I shall make it up entirely from scratch.

Thus, the righteous, reasonable and rigorously reinforced rules are as follows:

1. Films cannot be longer than **3 minutes**
2. Films must feature para, hang or other free flying at some point in the presentation
3. Films cannot simply show inappropriate content
4. Films must feature or contain images of the entrant at some point in the film.
5. Films can use footage from any year, but the whole film cannot have been previously submitted to this competition.
6. DHPC will not be liable for entries using other people's film footage.
7. Judges are derived from the DHPC membership; their identities will be kept secret because of the risk of bribery and blackmail.
8. Entrants are not limited to a single entry.
9. Films can be uploaded to Youtube or Vimeo or other video sharing platform, or submitted to [social@dhpc.org.uk](mailto:social@dhpc.org.uk) before the 12<sup>th</sup> of Jan 2022 or available on a flash drive or CD or DVD on the night.

## Prizes

- Prize for best film
- Prize for best soundtrack
- Prize for best cinematography
- Prize for best actor
- Prize for best supporting actor
- Prize for best editor
- Prize for best use of CGI
- Prize for film showing best recovery
- Prize for film showing best take off
- Prize for film showing best landing.

## Actual prizes

These are of incomparable, unending and infinite value and will be allocated on the night by the competition host...

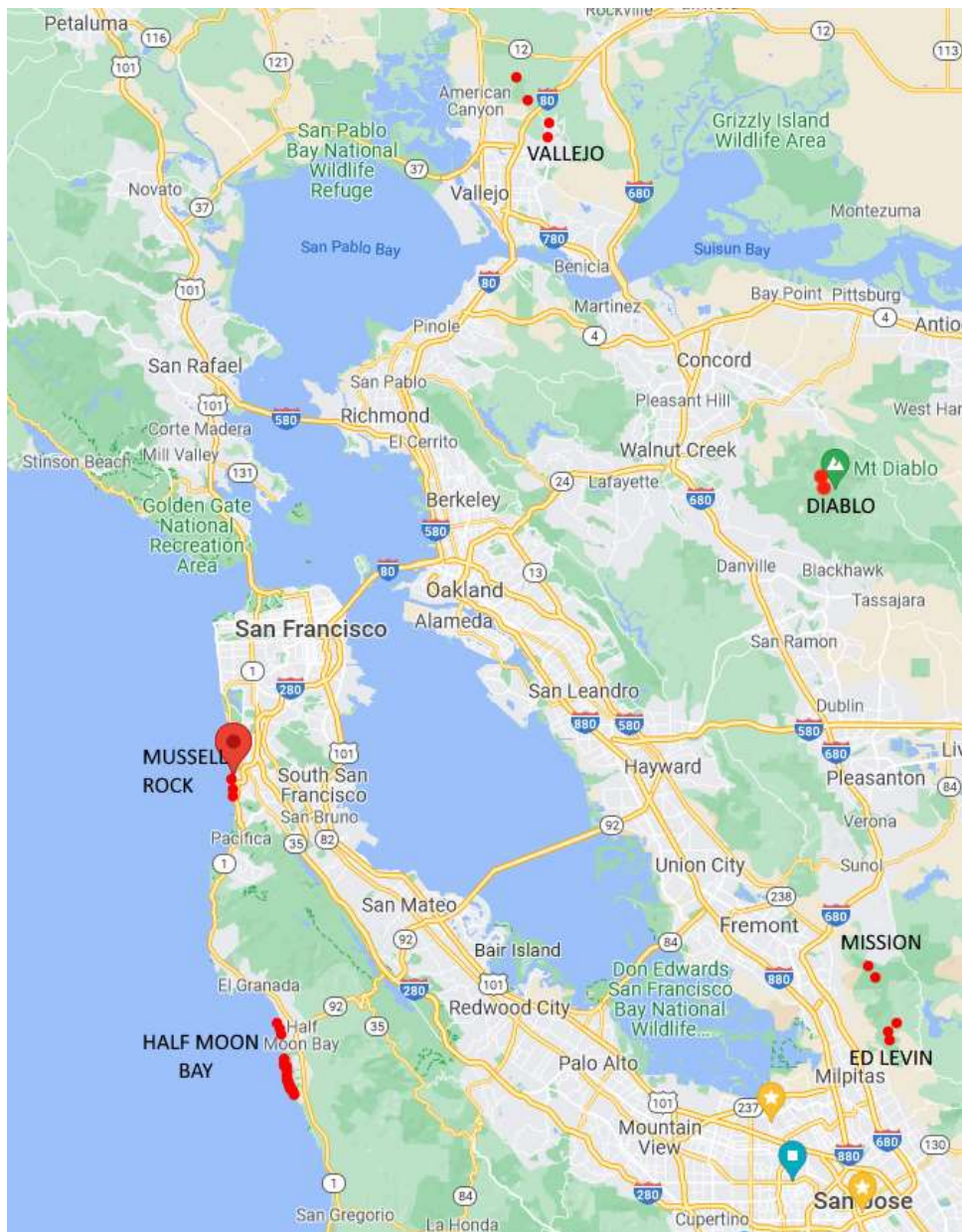
*Stef*

# California Dreamin'

Unfortunately my unemployment and summer of flying had to end at some point. So with a new job, I was going to California on a big jet plane to meet the new company. Specifically I'm talking about Silicon Valley south of San Francisco the surrounding coast and hills. It was a great surprise to me at the end of my week when I looked further into my suitcase and found a paraglider in there so I decided to make good use of my last three days.

It might be one of the birthplaces of free flying but it's a little off the beaten track for Brits to find themselves when abroad for flying. Which is why it's worth contrasting the flying there with here and going through a few pros and cons...

Here's the lie of the land, flying sites marked as red blobs, Silicon Valley is bottom right. MTB & wine country - Marin County & Napa are top right:



Let's kick off with a con first since you're going to have to get this out of the way. Paperwork. Don't let 'em tell ya it's the land of the free, home of the brave. That's just the tag line. Lawyers rule in the US and they've made their mark on flying for sure. It goes something like this:

- Get your flying insurance sorted - it'll be more expensive because lawyers.
- Get your IPPI card from the BHPA so that the US can recognise your flying level.
- Register with USHPA website and try to decode how to get a temporary membership.
- Sign some USHPA waivers online.
- Register with a local club - in my case Wings of Rogallo club.
- Sign some club waivers online.
- Sign a Parks & Recreation waiver so you don't sue the county or state authorities.
- Register on the telegrams to get in touch with a local guide / instructor.
- Go out with the instructor / guide who will brief you on sensitive sites and issues.
- Complete your temporary USHPA membership slip for \$6 with the guide.
- Potentially physically sign in and out of several sites using actual pen and paper.

Let's turn this into a pro though. Out there is a well staffed coach/observer network and quite a few instructors. The hoops you have to jump through, even as a local mean that these folks are committed to helping others out. To amazing degrees. By pot luck I made contact with Dave, an observer. It ended up with him picking me up and dropping me off at my hotel three days in a row to go flying. Massively generous of him and he was good company.

*Dave at Ed Levin Park*



The weather has got to be a massive pro right? Okay, let's run with that and see how far we get. Winds are pretty much always light, it's dry and plenty hot. It should be a flying paradise. Well you can fly there 300 plus days a year if you wanted but if you've noticed on the map the different terrains and the proximity of the sea there are some limiting factors too. The mountains tend to trap the inversion that forms every night due to the clear skies with the end result of a thick murky layer that rarely breaks. The fog rolls in and out around San Francisco Bay, The Pacific or San Pablo Bay at various times limiting visibility and warmth. Add in a sea breeze that can blow down the valley quite strongly and conditions can start to get a bit British from time to time.

So most days you can enjoy sled rides, light scratching and coastal soaring out at Mussell Rocks or Half Moon Bay but it's not common to have an XC day where you'd be playing around up at base and then setting off to eat some kilometres. With XC off the cards for most people, everyone helps each other out with the sledding, taking turns to give each other lifts to the top. At Ed Levin we spent several mornings doing this to get practice in for forward launches - a couple of the guys had a tow line based SIV course coming up. It leads to a good busy atmosphere at the site and I didn't complain when I was handed fresh tacos and a beer on landing.

Ed Levin Park, later in the morning was filled with hang gliding training and paragliders too.



One pro I have to mention is the airspace. Bearing in mind we're within sight of San Francisco, San Jose airports and tens of airfields, it's a miracle free flight is allowed at all but for Mission and Ed Levin the height limit is 6000ft!

Another pro that starts to turn into a con... The land itself. This area of California is farmed quite a lot so everywhere is open with safe take offs and landings but there's few rights here or traditions of rights. It means on landing out from an XC you're not really going to find a

footpath to get out of anywhere. Barbwire fences can stretch for miles over open ground. Land owners are within their rights to be armed and argumentative but rarely are. The vegetation can be a problem - scrub, dry brush, fennel, dust and sharp rocks can start to shorten your wing's life.

Vallejo up in the north, looking south down to Mt Diablo.



I hope you're getting the impression that whilst there's a lot of flying on offer, the good flying has to be worked for - perhaps you're picking up that from the fact I don't have any aerial photos :-). I did fly three days in a row but I wasn't clocking up many hours. The complex conditions and the need to work for good flying does mean that the pilots there were mostly very impressive with ground handling and glider control. Certainly the group I was with was very safety minded which seems to come from the flying culture over there.



Definitely a pro for a visiting pilot.

A final pro, and the reason I'll keep taking my wing out there on future visits is the friendliness of the folks you meet. With the pilots, the same parabollocks that gets talked over here gets talked over there. With regular people they just seem to be amazed that paragliders exist - free flight obviously doesn't have much visibility in the 'States. To illustrate this I had quite an extended fly at Half Moon Bay a couple of years back. I'd run away from Mt Diablo earlier in the day because TO was deserted and it had a reputation as a potentially evil place to fly. Arriving at the coast I started soaring the low cliffs and managed to find myself high fiving guests at a Korean wedding on the cliff edge, being part of an indie band video shoot further down the coast and finally, when the occasional fog rolling in became too cold to keep flying in, came down on the beach and was handed a beer... again.

Of course I'm going to be taking my wing back :-)



***Pete Logan***

# DHPC Reserve Repack



The DHPC Repack will be held on **SUNDAY Feb 27, 2022** from 10:45am to 3:45pm at Ilkley Grammar School, LS29 8TR. It will be in Sports Hall **at the back of the school**. Access is through the Springs Lane entrance.

<http://www.ilkleygrammarschool.com/>

This is your chance to repack your reserve in time for the 2022 season. Guy

Richardson (<https://gingernomad.co.uk/>), a BHPA licensed packer has kindly agreed to attend to help out. He will also bring some spares and a few new reserves for anyone who may be interested or trading in an older reserve.

**Note:** As there is uncertainty around possible Covid-19 restrictions there is the possibility where we may have to cancel the event at short notice. Please keep an eye on the DHPC website for any updates. As a result, **it is best if you pay on the day.**

## All welcome

Everyone is welcome: paragliders, paramotors, speedwings, hang gliders ...

## Repack your reserve ...

The club is organising a repack where you come along with your harness and reserve and repack it under the supervision of licensed BHPA packers. This is a great opportunity for you to become more familiar with your equipment, learn how to repack your own reserve and to make sure your reserve system will operate correctly.

### COVID-19 Precautions

Please read below

- Any person suspected of having Covid or who may be self-isolating for any reason should not attend.
- Please wear a mask while indoors unless exempt
- Antibacterial gel will be available at the entrance and participants are encouraged to use it.
- Refrain from touching your eyes, nose or mouth if your hands are not clean
- Try to maintain 2m separation from others while indoors
- We will review and adopt any new government / WHO guidance as and when it is published.



<b>Contact</b>	David May
<b>Email</b>	<a href="mailto:dav.may@gmail.com">dav.may@gmail.com</a>
<b>Phone</b>	07928 318 219
<b>Price</b>	£ 10

### **What is a repack session and what should I bring?**

The annual reserve repack is an opportunity for you to **repack your own reserve and fit it back into your harness** with a licensed BHPA parachute packer on hand to provide advice and support. To this end you should bring the following:

- Your reserve and harness.
- Your reserve repacking instructions. You may have received this when you bought your reserve or if not then you should be able to download from the manufacturers website.
- a bit of string, paracord or something suitable for the packing loops on your reserve (if appropriate to your model) and also a bit of paraglider line or trimmer cord to assist with the pins when putting it in the harness
- Suitable rubber bands to pack the lines.

Every year I am asked where to get suitable rubber bands as they are surprisingly difficult to find. The best option is to source the same rubber bands used by the manufacturer of your rescue chute - perhaps drop the manufacturer an email to see if they can point you in the right direction. Failing that, you could search the internet for size 8 rubber bands (not elastic bands). They should have as high a rubber content as possible - over 80% is good. The best I have found are available from [UK Airsports](#) though they are a little expensive. (note: I am not affiliated in any way with UK Airsports).

- Warm clothing - the sports hall will be cold.

### **Why bother repacking?**

- A properly packed and fitted reserve can open within 30 - 50m of being thrown. Most manufacturers recommend repacking every six months (some as frequently as 90 days). There are several reasons for this:
- Once the reserve is packed, it can absorb moisture from being left in damp air conditions, not just wet from rain. The moisture will not get back out again easily and can cause damage to the strength of fabric and lines as well as causing the fabric of the canopy to stick together.
- The reserve packed in the harness gets squashed, especially if the harness is the type that the pilot is likely to sit on it whilst waiting for a launch or

having their sandwiches. The effect of this is to almost iron creases into the reserve which have been shown to make the deployment slower, as the airstream takes longer to get between the leaves of the canopy to allow it to open.

- After about a year, the rubber bands that hold everything together long enough to deploy properly, can decay and need checking.
- Any velcro in the system needs to be checked because if left for a long time the it can get “welded” together, and it takes great strength to pull the reserve out. It has also happened that the velcro on the side holders for the bridle on the harness did not open.
- A reserve can also be difficult or sometimes impossible to throw due to incorrect fitting to the harness.

Or perhaps you’re the type of person who prefers a visual argument. I did a quick search on YouTube for a few clips to show the difference between a slow reserve inflation and a fast inflation. See for yourself ...

### **Slow Inflation**

<https://www.youtube.com/watch?v=4nFokxbVNY>

At about 0:15 seconds the reserve is thrown but it is slow to inflate. This then leads to complications with the reserve twisting up with the main canopy – the pilot was lucky the wing re-inflated by itself in the end see also: <https://www.youtube.com/watch?v=yByGaiMd4EM>

### **Fast Inflation**

<https://www.youtube.com/watch?v=dX9HnsmSZaM>

[https://www.youtube.com/watch?v=co\\_PQAtBd1Q](https://www.youtube.com/watch?v=co_PQAtBd1Q) (around 30 seconds in) [https://www.youtube.com/watch?v=zLIFJ8\\_Oq28](https://www.youtube.com/watch?v=zLIFJ8_Oq28) (around 25 seconds in) <https://www.youtube.com/watch?v=dX9HnsmSZaM>

There are a number of reserve throws in this video and all of them inflate significantly faster than in the first video.

### **When your reserve falls out...**

Can you refit your reserve when it accidentally falls out, after a quick drag over Wether Fell? It really is simple once you know how. If you cannot refit it safely then at best you could lose a day’s flying and at worst...

-



# The Dales Club Farmer's Dinner



## Saturday 19th of March 2022



**Knight Stainforth Hall**

**Little Stainforth**

**Settle**

**North Yorkshire**

**BD24 0DP**

**Tel: 01729 822200**



<http://www.knightstainforth.co.uk/index.html>

**Dress code smart casual, 7:30pm for 8pm**

Our annual Farmers Dinner is our way of saying a huge thank you to all the Farmers who support us with free flying in the Dales, and to award Trophies to the pilots who have flown further and better than the pack. The Knight Stainforth Hall is on a 45 acre estate which has been run by the Maudsley family for three generations. On offer is a locally crafted real ale, fine wines and various malts. It is located only 2 miles north of Settle on the banks of the River Ribble.

**As usual we will meet in the bar for drinks from 7.30pm where there will be a free tab for the farmers. At 8pm we'll move through to the dining room to tuck into a sumptuous 3 course meal. During coffee, we'll present our annual club trophies and the Chairman will thank the farmers for their continued hospitality. Beware of the odd balloon/aeroplane flying around...**

We plan to run the minibus service for the farmers around Hawes again. The function room seats 60 and so everyone will be strictly limited to 2 tickets.

Accommodation in Settle:

- Harts Head Hotel, Giggleswick – from £90 for twin room (2.2 miles)

- Golden Lion, Settle - from £105 for twin room (2.5 miles)
- Royal Oak, Settle - from £70 for twin room (2.5 miles)
- The Knight Stainforth camp site will be open on the night of the Farmer's Dinner
- Loads of B&Bs in Settle to choose from

# Menu

## Starters

- Tomato and mascarpone soup served with warm roll and butter.
- Button mushrooms cooked with garlic butter and cream served in a homemade breadbasket
- Plump Greenland prawns served over shredded gem lettuce and dressed with a classic Marie rose sauce served with wholemeal bread.

## Main Course

- Braised rump of Maudsley farm beef and onions in a rich ale gravy served over creamy mash.
- Crispy belly pork, blue pig black pudding and Bowland sausage on spring onion mash with a rich red wine gravy.
- Fresh haddock fillet shallow fried in lemon and black pepper breadcrumbs on crushed potatoes with a garden pea and mint puree.
- Wensleydale cheese, spinach and leek pie served with dressed salad and served with chips.

## Desserts

- Sticky toffee pudding with salted caramel sauce and vanilla ice cream
  - Milk chocolate brûlée with a homemade shortbread biscuit
  - Lemon and ginger cheesecake

The cost for members is £23.50 per person which includes Tea or Coffee and mints.

The club will be paying for food and drink for the farmers and their partners.

## Booking

If you would like to attend, please book online by 1<sup>st</sup> March:

<http://webapps.dhpc.org.uk/farmers-dinner/book/>

or by email [treasurer@dhpc.org.uk](mailto:treasurer@dhpc.org.uk) (Dave Bradwell)