

The Dales Hang Gliding and Paragliding Club

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Skyywords

www.dhpc.org.uk

Dec 2014

Don't forget the AGM.
Dec 4th,
Horse and Farrier, Otley

Merry Christmas to all our readers!

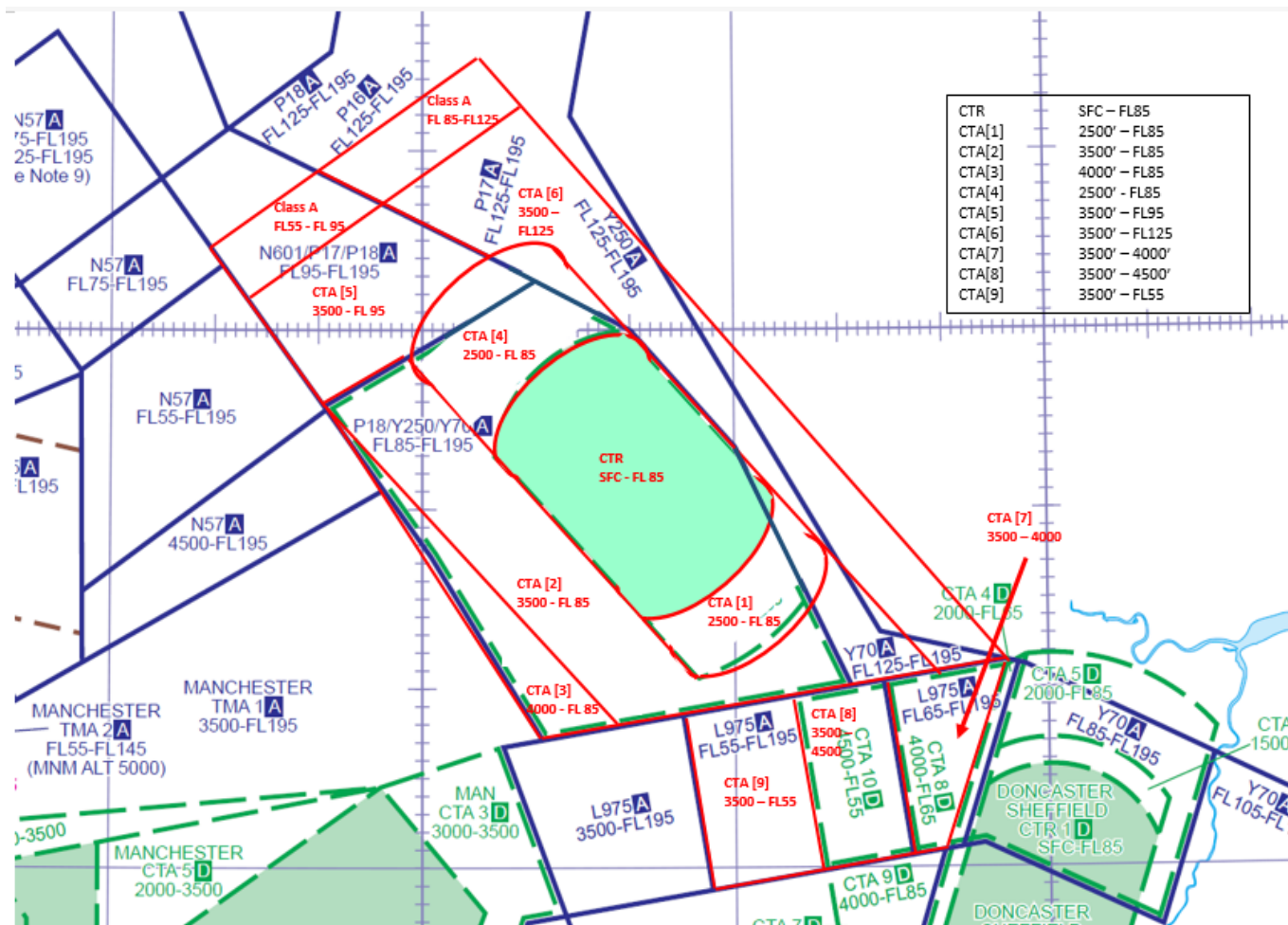


Chairman's Chat - December 2014

The Dales are under threat!

Leeds/Bradford is proposing additional airspace extending as far north as Kettlewell. At the moment all aircraft depart to the West (no matter what the wind direction) so this is inefficient in terms of fuel, emissions and time. Because it's closer to Manchester it also requires more staff to ensure de-confliction.

We don't have detailed co-ordinates yet but from the attached diagram it looks as though Windbank/Hawkswick, Kettlewell, Kilnsey and Cow Close Fell will be on the edge, possibly within the 5,500' ceiling. Fortunately the XC directions away from these sites generally track along the edge of the air-space or away from it.





Martin Baxter—Club Chairman

Of more concern is the airspace (CTA [6] on the diagram) that has a base of 3,500'. If I have got my co-ordinates right that means that it covers the whole of Nidderdale and extends out to a line running roughly NW to SE through Harrogate and Wetherby. This will put severe limitations on XC flights from Dodd and Wether Fell. The air tends to sink as you enter the Vale of York and it's essential to be at base if you are to maximise your chances of getting towards York.

I don't think there will be too many implications for Baildon and Ilkley, which are already in airspace; but Cowling and Addingham may have slightly reduced ceilings. Getting away from Nont Sarah's may be a little easier as the ceiling in that area is raised slightly.

As a club I don't think that we have a 'Cat in Hell's' chance of changing things by ourselves. Tom Hardie from the BHPA thinks our best chance lies in joining forces with the rest of the General Aviation community (light aircraft, sailplanes, etc). A lot of pilots avoid airspace and the subsequent choke points can have a significant effect on safety.

Rest assured that when we are formally approached for our comments we will make our case. I don't know how much we can influence things, but we'll certainly try.

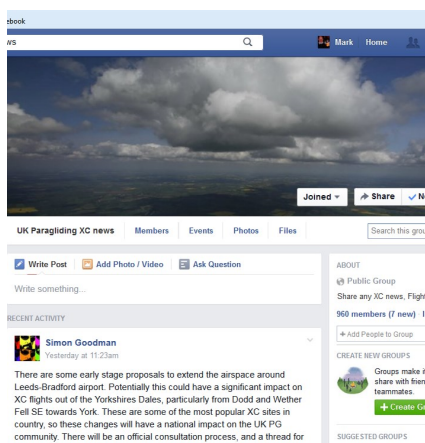
Fly safely,

Martin Baxter
Chairman

More on the website



..and on Faceache





Free Beer! (Annual General Meeting)

Thursday 4th December at the [Horse and Farrier](#) in Otley, LS21 1BQ.
Upstairs Function Room. 7.30pm for 8.00pm start.

Reports

Come along and find out what the committee has been doing for you, and have your say on how things are run.

Accounts & Membership

We're not including the accounts in the newsletter because we don't want them to appear on the internet. But if you can't wait until the AGM then please feel free to ask the Treasurer for a copy anthonypaulpickering@hotmail.com
Suffice it to say that finances are fairly healthy and membership is up slightly.

Proposals

1. That membership fees and the contribution to the Flying Fund (35%) remain the same next year.
2. That the DHPC offer the use of Club sites for British Open Series HG, British Paragliding Cup and other Inter-Club Comps as appropriate.

Committee

All committee posts are up for re-election and you are very welcome to stand for any post. All you need is a little spare time and a willingness to put something back into the club. As things stand I think we have a volunteer for each post, so rest assured that you won't get elected just by coming to the meeting.

We hope to see you there.

Noticeboard



Club Nights



Club nights are always the first Thursday in the month—

Except January—2nd Thursday (8th)

Always 7.30 for 8pm, or you could come early to eat with your flying buddies first (6.30pm).

So, the next one is

Thursday 4th December, 7.30 for 8 pm

Come to the AGM—get free beer!

Future Club Nights

Thursday 4 December 2014 at the [Horse and Farrier](#) in Otley.
7.30 for 8.00pm

January - Glider Servicing Pick Up ([see detail later in this edition](#))
Feb, Mar, April—We have possibly an embarrassment of riches, with potential talks from:
Jocky Sanderson, Judith Mole, Toby Colombe, Tony Dew (new Chair of George Caley Flying Club), GASCO (General Aviation Society). Add to this the quiz night / Prize giving night. You could be hoping for the winter to continue!

Token

Interesting—Potentially useful? Obviously if you're just soaring Wind-bank with your mates you may not need it!



I always thought that "Brass Monkeys" referred to a contraption to hold cannon balls. Seems I was wrong!

SHPF Ratho Repack—7 Feb2015

This is a great fun event that members have attended before. Practice throwing your washing, get night or 2 out in Edinburgh. Event £30, 2 nights accommodation ~ £100—if interested, let me know and we can organise a trip! Tam



Ed's Coaching Column

Brass Monkeys !

When I was a lad (brought up on a hill farm during the cold winters of the 60's) my Dad swore by clogs in summer and wellies (with liners) in winter. So I had a 'wellies in winter' upbringing – and it seemed to work. Whether snagging 'nips' or Kale in a muddy field on a bitter winter's day or chasing ewes around sodden fells, I don't recall a childhood marred by frostbite or trenchfoot. This, of course, was before the days of 'modern materials' and child protection agencies.

Which leads me to the horrors of flying through a British winter and the best ways to endure it or enjoy it. I know some pilots who store away their gliders and don't bother until the second daffodil appears; just to be sure – whilst others spend hours behind the wheel in search of a weather slot coinciding with a flying site. I'm a bit of both. I don't pine after the fjords, but I like to get out and about on a decent winter's day. I'm not your mum reminding you to put on your hat and gloves, but merely covering the topic of keeping warm to improve the flying experience. Because we ascend, even in summer to staggering heights, it applies equally in most respects to all year flying – even abroad. However, I'll limit myself to the particular issues of staying warm whilst winter flying in a typically British winter.

There are many outdoor winter activities, but ours is a little unique in that we adopt a fairly sedentary/ inactive position with full exposure to the elements for longish periods of time. More active pursuits continually provide heat generation, whereas we are more about heat conservation. In other

words we need to insulate and cut out places of heat loss to maintain a temperature. My conclusion from all this is that a decent walk-up is actually a necessity on a cold winter's day as it produces the core heat for the flying part.

The basics of keeping warm

(photo: DHPC fashionistas modelling on a cold Wether Fell.)



Brass Monkeys!!

You'll lose heat from any uninsulated body part. You've really got to take care to cover up everything else too. You'll lose just as much heat from an uncovered neck as you will from your head - so a long balaclava that tucks away or a neck muff. I tend to also use my full face helmet on cold days as opposed to the lightweight and the balaclava should pull up over the nose and ideally be breathable material to avoid frosting up or misting goggles/glasses.

It's also not good enough to simply add insulation to the body parts that are cold. Your hands are often the first thing to feel a chill. Yes, that's partially because you're not wearing gloves, but it's mostly a symptom of your entire body being cold and prioritizing heating your essential organs in your torso over pumping warm blood out to your extremities to heat body parts. If your hands are cold, it's a sign that you're not doing a good enough job at keeping your whole body warm. In my own case I wear two weights of glove, both fingered and add the second set once settled and airborne. Mitts are warmer, but could compromise safety in a number of ways not least the ability to deploy a reserve. Even in summer I still use the two pair system for ease of instrument/radio/camera operation and on a good day being at attitude.

I most often see pilots who aren't insulating their legs. They'll have wool socks, boots and three sweaters on, plus a down jacket and be wearing a balaclava on their head. But, they're still cold. Why? All they've got on their legs is a pair of jeans or single skin trousers. Their legs may not feel any colder than the rest of their body, which feels cold because they're shedding so much heat from their bottom half.

While your torso does require the most insulation, you can't neglect your limbs or fail to insulate areas like your neck, head and ears, where blood vessels run close to the surface, losing heat more quickly. I have gone a bit more lightweight clothing-wise and a pilot with a full flying suit is a bit of a rare sight these days. Once everyone wore them, but the emergence of pod harnesses (hg and pg) meant they were less necessary; they became less common and hence less fashionable. But without a pod type harness, really good, well insulated and wind proof trousers are essentially (in fact I'm wearing mine as I type this – sat at a keyboard can be a freezing activity on a pension!).

The principles of layering and the need for a flexible system

During the walk in/up with 15 -20kg you'll be doing something fairly energetic so you'll want a **base layer** that prioritises sweat reduction over warmth, but still provides insulation when you slow down. Merino wool works great at that but doesn't come cheap – however, it's a great material and well worth it. Many swear by it.

Mid/top layers: This is where you want to wear your more substantial, bulky insulation. Think wool shirts, fleece jackets lightweight down jackets and fleece or lined trousers. Wool sweaters also count. Outer jackets are also likely to be the first layer you'll shed as temperatures increase or you transition to more energetic activities – like walking up the steep parts of the hill. Warmth-to-weight and warmth-to-bulk count most here, you want the warmest possible mid-layer with the least amount of size and weight because, as those factors increase, your ability to easily move or even sit comfortably is decreased and your flying can be more restricted.

Brass Monkeys!!

Over my base layers, I'll typically suggest adding a form-fitting Merino Wool sweater, a heavy duty wool or fleece sweater and then a down vest or jacket. Switching between the three allows me to deal with changing insulation needs.

The Shell: So you've taken care of sweat reduction and your next-to-skin insulation with a quality, flexible base layer and your major insulation needs with mid/upper layers. Now, you need to keep the wind and rain and snow off with your shell.

You'll see "soft" shell and "hard" shell jackets and trousers. Hard shells crinkle when you move and include a waterproof membrane like Gore-Tex that's breathable. They can be thinner and lighter and more capable at keeping the weather off than a soft shell. But, a soft shell is typically more comfortable to wear and breathes better, but is water and wind resistant over water and wind proof. Which is best for you? For paragliding/hang gliding activities, the soft shell is easier to wear. If you're facing extreme weather or even just persistent rain, then you'll want the hard shell. Most people who regularly go outside in the winter own both and grab whichever one's going to fit their needs best at any given time. When going flying I have little more than very basic, lightweight waterproofs stowed away, just for showers— for hill walking I use a heavier duty breathable set

On either type of garment, look for pit zips and other vents that you can open up as you start doing energetic stuff or temperatures increase. These are killer if it's fairly warm, but raining or if you just need to let your body breathe a little more. Zip them all up if you're cold.

With trousers, jeans are typically adequate for summer but think about the lapse rate and the temperatures at 5000' + however, if you've got a good base layer underneath, you'll be better served so consider a quality pair of purpose-designed pants. Being a penniless fashion guru I obtained my ideal combination of fit and style with technical functionality and warmth at Settle market. Love em! And great pocketing too. You don't always need to buy a 'brand' at high prices.

Feets and Hands:

(Photo: Toby Briggs seeking warm fingers!)

The same layering principle applies to your feet and hands (I mentioned my system earlier). You'll be warmest and driest with good silk socks or glove liners worn under a wool insulation layer. Your boots should add a little insulation while keeping the weather off (you want either a membrane or waterproofed leather, most people are served best by a membrane, it's idiot-proof). Which brings me back to wellies. Personally, I'm not a fan of boots, that goes back to my climbing days when they tended to be much heavier than modern ones. I've seen plenty of purpose designed flying boots and they certainly offer ankle protection but seem way too bulky for tight modern pods. (Not a problem if you don't use a pod). Some of our walk in's in winter tend to be very boggy and



Brass Monkeys!!

and wet – I do deviate from paths a lot admittedly. Lightweight socks inside thicker woollen knee length with wellies over the top works wonderfully and keeps you dry. HOWEVER, I wouldn't recommend them on ice or snowy slopes. Once (circa 1980) they were the modern pilot's footwear of choice, but don't please act on my recommendation.

When buying boots, make sure there's adequate room to wear both those silk sock liners and a good pair of thick wool socks. Too-tight boots will limit your circulation. As a note on socks, those really heavy, loosely-woven wool socks aren't going to be as effective as a tight pair of tightly-woven wool socks of the kind sold by reputable outdoors brand.

A final word on gloves. The outer layer of your gloves should provide the same as for your feet. With your gloves, look for that membrane to be laminated to the shell, which increases dexterity over separate layers. A pair of cute wool gloves knitted by granny will keep your hands warm if all you're doing is sitting around a campfire, but you need weather protection if you're doing anything more. We all hopefully know that mittens wear warmer by allowing your fingers to help warm each other, but that design massively decreases dexterity and as previously mentioned could compromise safety and fine control. I have seen large over-gloves fitted to brake handles but aren't easy to use and not really necessary for UK flying.

In summary. If you stay warm you will enjoy the flying that winter has to offer, once you're cold that has pretty much exhausted your heat energy batteries and it's unpleasant and time to land. I recently made the mistake (see my blog) of rushing unprepared up Whernside without adequate clothing. Once in the air the sun sank lower and the temp dropped. I lasted 20 minutes before being forced to head off and land.

Get warm, stay warm energise and insulate.

Coaching Notes

A joint indoor based, full coaching day is being planned with the CSC – similar to previous years but we aim to make it a bit more interactive.

Everything is still provisional, but the date (TBC) is 31st January 2015.

A new coaches list can be found on the DHPC website (look under coaching) and in this copy of Skywords. Could coaches please check their contact details and let me know of any changes or errors. We currently have 19 coaches but only about 10 mugshots on the website. Next year during the 'DHPC crackdown' those without a photo may be deleted from the coaching list as moved, died, disinterested, jailed or held hostage.

I'm holding exam papers for people some for a while! You know who you are.

I am looking for photos of reasonable quality that show either a Dales site (preferably from the air), a Dales valley or a farm/hamlet associated with any of our sites farmers'. Farmer mugshots are useful and farmers at work or play even better.



Simon Goodman—Competition Corner

XC and Comp Round Up 2014

Over the last few seasons it seems the performance of pilots in the National XC league has been leaping ahead every year, and 2014 continued that trend. Over a long, warm, flyable summer impressive flights and the sound of records falling were recorded on a weekly basis. This year was the best season for paragliders on record, both nationally (279 pilots with a season total of 105,574.9) and in the Dales (29 pilots scoring a season total of 5393.4 points). The Dales placed 12th out of 36 clubs, which is pretty good considering we have fewer pilots submitting flights than most of the clubs above us. Notable national records set this year include straight line distance record (Mark Watts, 275.5km, 03/08/2014, Milk Hill White Horse to Cromer, Ozone Enzo 2), declared straight line distance record (Al Wilson, 225.3km, 03/08/2014, Milk Hill White Horse to Swaffham, Gin Carre-ra), and declared triangle (Mike Cavanagh, 100.7km, 30/05/2014, Carn Liath, Ozone Mantra M6).

Many Dales pilots recorded personal best flights or season totals. Dean Crosby's 216.2km flight was the first ever 200k flight from the Dales, setting a new site record for Dodd Fell, and the longest ever PG flight from a Dales site. The 2014 season started with a bang on April 11th's 'Big Friday', which must have been one of the most booming XC days in the history of the Dales, with 1,354.0 points scored by 18 pilots (and those were just the ones register for the Dales league – far more flew that day), and ran through to the 29th October, giving 38 XC days in total. Eighteen out of 29 pilots in the Dales league scored season totals of more than 100 points, which is quite exceptional (last year it was half that!).



Simon Goodman—Competition Corner

XC and Comp Round Up 2014

On the Comps scene Dave Smart was Sports Class champion over the two rounds of the British Open in Gemona (Italy) and Ager (Span), and Dave came 7th and Jake Herbert 11th in the overall ranking, which is incredible considering they were flying C and B gliders up against pilots on the latest comp gliders! Well done guys!

Here's to an even more successful 2015!

Dales League

Rank	Pilot	Club	Glider	Total	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Flight 6
1	Dean Crosby	Dales	Nova Triton 2	542.2	216.2	79.9	73.6	72.9	57.9	41.7
2	Mike Cavanagh	Cumbria	Ozone Mantra M6	463.4	163	153.3	116	31.1		
3	Ed Cleasby	Cumbria	Ozone M6	433.3	116.2	85.7	77.6	56	55.3	42.5
4	David Smart	North Yorks	Ozone Delta 2	381.8	122.4	106.8	74.5	46.6	31.5	
5	Jake Herbert	Dales	Nova Mentor 3	340.2	104.1	100	44.9	42.4	36.5	12.3
6	Martin Baxter	Dales	Air Design Volt	271.6	98.8	88.9	48.6	16.1	10.6	8.6
7	Chris Fountain	Dales	Ozone Delta	266.7	63.6	59.9	49.9	47.6	25.8	19.9
8	Alex Colbeck	Dales	Niviuk Artik 3	263.3	92.2	76.9	63.6	30.6		
9	Philip Wallbank	Pennine	Ozone Mantra M6	246.1	145.4	64.5	36.2			
10	Geoff Yeadon	Dales	Ozone Delta 2	242.7	131.8	71.7	13.9	12.9	12.4	
11	Simon Goodman	Dales	Nova Mentor 3	177.4	44.5	37.9	35.5	33.2	15.1	11.2
12	Steve Etherington	Cumbria	Nova Mentor 3 light	169.4	104.3	65.1				
13	Peter Balmforth	Dales	Axis Vega 2	156.1	62.9	36.4	16.7	16.5	16.3	7.3
14	Simon Tomlinson	Dales	Advance Sigma 8	149.7	57.6	34.5	16.8	14.3	13.8	12.7
15	Gary Stenhouse	Northumbria	Ozone Mantra M6	143.8	79.1	49.2	15.5			
16	Kevin McLoughlin	Dales	Nova Factor	130.6	40.6	25.9	23.3	14.9	13	12.9
17	Pat Dower	Derbyshire	Niviuk Icepeak 7 Pro	128	128					
18	Geoff Crossley	Cumbria	Ozone Mantra M6	123.1	123.1					
19	Richard Boyle	Dales	Niviuk Artik 2	85.5	37.6	12.4	11.5	9.3	8.3	6.4
20	H H Tsai	Cayley	U-Turn Blacklight	83.6	83.6					
21	Richard Carter	Cayley	Skywalk Cayenne 4	77	64.8	12.2				
22	Krzysztof Telus	Pennine	Skywalk Chili 3	67.2	50.5	16.7				
23	Mark Morrison	Dales	Ozone Buzz Z4	56.2	12.8	12.2	11.1	7.6	6.4	6.1
24	Sara Spillett	Dales	Niviuk Artik 2	44.7	33.9	10.8				
25	Gary Senior	Derbyshire	Gin Atlas	37	37					
26	David Bradwell	Dales	Advance Sigma 7	25.6	25.6					
27	Tim Oliver	Cumbria	Gradient Golden 3	19.2	19.2					
28	Steve Mann	Dales	Ozone Delta 2	15.1	15.1					
29	Richard Tang	Pennine	Nova Factor 2	7.2	7.2					

Simon Goodman—Competition Corner

XC and Comp Round Up 2014

National League (*Listing Dales as primary club and paid up in national league)

Rank	Pilot	Club	Glider	Total	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Flight 6
1	Dean Crosby	Dales	Nova Triton 2	542.2	216.2	79.9	73.6	72.9	57.9	41.7
2	Alex Colbeck	Dales	Niviuk Artik 3	506.1	182.4	92.2	76.9	63.6	60.4	30.6
3	Jake Herbert	Dales	Nova Mentor 3	409.6	104.1	100	71	47.2	44.9	42.4
4	Chris Fountain	Dales	Ozone Delta	308.3	63.6	61.5	59.9	49.9	47.6	25.8
5	Thomas Yeadon	Dales	ozone Delta 2	292.2	131.8	71.7	37.2	24.7	13.9	12.9
6	Martin Baxter	Dales	Air Design Volt	277.5	98.8	88.9	48.6	16.1	14.5	10.6
7	Simon Goodman	Dales	Nova Mentor 3	177.4	44.5	37.9	35.5	33.2	15.1	11.2
8	Simon Tomlinson	Dales	Advance Sigma 8	147.4	57.6	34.5	16.8	13.8	12.7	12
9	Kevin McLoughlin	Dales	Nova Factor	128.9	40.6	25.9	23.3	13.2	13	12.9
10	Richard Boyle	Dales	Niviuk Artik 2	61.5	37.6	12.4	11.5			
11	Mark Morrison	Dales	Ozone Buzz Z4	36.1	12.8	12.2	11.1			

Dales Hangies

	Pilot	Club	Glider	Total	Flight 1	Flight 2	Flight 3	Flight 4	Flight 5	Flight 6
1	Steve Mann	Dales	Aeros Combat L	206.1	116.8	73	16.3			
2	Trevor Birkbeck	Dales	Wills Wing T2	38.8	38.8					
3	Andrew Woods	Dales	Wills Wing Talon 140	13.3	13.3					



Committee Profile—Trevor Birkbeck

I first saw hang gliding early in 1976 at Sutton Bank, thought it looked the biz then next followed some HG's from outside Emley Moor to watch them fly (plumett) on a local hill. Worked my way along the line, asking questions and the only one who would talk to me was Noel Whittall. I bought his Skyhook 3A off him and Noel taught me to fly on the West face of Baildon – we've been great friends ever since. No problem with the power lines on the West face or running out of landing space as the glide

angle on the 3A was the same as the hill slope (about 3.5 to 1).



Moved swiftly onto better gliders, flying the Hiway Cloudbase and then the Wasp Gryphon, before migrating to Birdman, flying and dealing in the Cherokee. Over the years, I've been a dealer for Solar Wings, Airwave and Aeros, selling and competing on their best products – currently a sub dealer for Wills Wing but sales of hang gliders (for me) are virtually zilch these days.

Of course, when microlights came on the scene I had to get into them, sharing my first one with Noel and then dealing in them over the years. We

used to take off from any suitable field and fly them all over the place. Whilst working at TV stations all over the North, I would trailer the microlight behind my car and fly in free time after work. One time, I rigged the microlight in a layby in Lincs, checked there was nothing coming and took off down the road and flew to a friend's farm near Coningsby, where he had part of a bomber runway on his land. Had tea and then flew back to my digs – one time 3 A10's spotted me and came for a look, flying by one either side of me and one below me – hmmm! Another time I was flying in Lincolnshire, I passed over a Vulcan bomber, he being at about 1500ft whilst I was at 3000ft. Amazing and huge!

Back on the hang gliding scene, I was obviously attracted to the competition side – the League started in 1977 so Keith Cockroft and myself wind dummied at the last 3 comps of the first year. We joined the League in 1978 and I immediately levered myself onto the Comps Panel on the basis that I would negotiate all the sites around the Hawes area and run a comp there. Brian Milton threw Bob Calvert (top HG pilot at the time but not really a mover and shaker) off the panel to make room for me!

Seriously into the HG competition scene but never really was a top grade pilot – just middle for diddle. We had so many good pilots in the UK at that time such as Brian Wood, Johnny Carr, Bob Calvert, Rob Bailey, Jess Flynn, Graham Slater, Graham Hobson, Bob England, the Fack brothers. Then along came more such as John Pendry, Noel's son Rob Whittall, Bruce Goldsmith, Dean Crosby, good friend Nick Pain – you really had to be very good to compete with these guys.

I captained the British team in the Bleriot Cup a few times, was in the British team in Owen Valley XC classic (came 20th), flew in comps in Venezuela, Brazil and aerotow comps in Florida – all great fun.

Of course, there always lots of other attractive sports that I've been involved in, such as sailplane flying at Sutton Bank and Rufforth, sailing in the Med, skiing, snowboarding, wind surfing and always lots of motor cycling (a bit of racing, trail riding and road trips around Europe).

However, time moves on and I am now not at all interested in carting hang gliders around the world for comps any more and, sadly, no longer good enough to compete at these levels. Still competing in the UK BOS hang gliding series on my WW U2 (lighter on the shoulder as befits my age) – which is great fun – and now in the throes of getting to grips with paragliding, thanks to Dean Crosby’s tuition and my Nova Ion3. Roll on for the good weather of 2015!

Trev

Trev’s first wing
Skyhook 3A



Trev’s current wing
Wills Wing U2



Winter Flying – A Cautionary Note

Ed Cleasby, Chief Coach

This time last year I wrote some cautionary notes about winter flying and the differences compared with summer flying. It's usual to warn of the dangers of the combination of winter-rusty pilots and those first spring thermals – however, I'm coming to the conclusion that winter brings its own hazards and that they are less well understood or appreciated in our flying decisions. This short article results from a number of incidents and email accounts which have come to my way just prior to writing this one of those concerning myself!

OK..... let's make a start.

As aircraft go, paragliders are pretty near the bottom of the food chain certainly in terms of their performance. It takes very little increase in windspeed before we get that awful 'pinned' feeling. In summer with higher temperatures we don't experience that as much, but come winter what felt like a perfectly reasonable breeze can surprise us with tricky take off's, draggings on landing and penetration problems. Essentially, due to cold dense air, a wing's flight performance had changed, from its stall speed to its top speed- even a glider's handling is affected. (That last statement may cause debate). A little of the science may be useful to understand this and then I'll try to apply it to a recent experience of my own. Incidentally, I'm no scientist so this may be a genuine idiot's guide.

The air is everything to our flying, it's what supports the wing and us beneath it. We feel it and experience it in many ways – some pleasant, some a lot more scary. We need to have a sound understanding of it, how it behaves and its changing properties because key decisions (Do I take off? Do I fly in that place?) have to be based upon it. This article is about air density and its effects.

Air density is important because it affects not simply perceived but actual performance. Put simply, thicker or thinner air can change the parameters of our glider's performance and its resistance to collapse and subsequent recovery behaviour. Air density is affected by three primary things:

- | | |
|---------------------|---|
| Ambient temperature | (decrease in temp means increase in density) |
| Pressure | (decrease in pressure means decrease in density) |
| Humidity | (increase in humidity means decrease in density – honest) |

Applying some of the above in a simple way.

Effects of air density on paragliders (or any aircraft)

More dense, or "heavier" air will slow down objects moving through it, because the object has to, in effect, shove aside more or heavier molecules. Such air resistance is called "drag," which increases with air density. Put simply you won't penetrate as easily or as well as you may have been used to in warmer summer air – which could have been 20 C above a cold (but dry airmass) December day. Don't expect the same ability to roam around the sky with ease or penetrate as well. In winter there is very little solar warming either. (See also my previous notes on cold air pooling, catabatic effects etc). It's true that in summer it may be cold or very cold near cloudbase, but density compensation is brought about by a decrease in pressure with height. Sometimes in winter the effects are more obvious than at other times. For example a rather damp airmass (high humidity) without unduly low temps will feel OK partly this is because high humidity actually slightly decreases density. The

Winter Flying – A Cautionary Note (Cont) Ed Cleasby, Chief Coach

most extremes examples, that mean we need to think about whether to take off or not, are a combination of dry airmass, high pressure, low temperature, moderate winds. In summer all of those would be ideal EXCEPT for the low temperatures and lack of much solar heating. So we are talking winter conditions.

This lowering of density can have a profound effect at different stages of a flight – from take-off to landing. For it to make any practical sense it may be useful to provide an example. The following account relates from very recently when it turned dry and cold (around 3 -7C) with forecast light to moderate winds. Some tales I heard from pilots, others I heard about and the one I'll put flesh on is my very own. Yes after all these years I should have known better.

What it can mean in practice.

I recently arrived at take-off on Barton Fell, a well-known and flown northwesterly, Lakes site that I know pretty well.. It was sunny and little more than 10 mph at take off – very light on the walk in. As the wind was slightly off we walked along a further 15 minutes to get a more into wind face. Again, the wind felt OK, maybe 12 -14mph with odd slightly stronger moments. Eager to be off I quickly geared up and expected a fairly easy launch on a gentle, clean, grassy slope. Generally above 12mph I use A/C risers and find it straightforward. On this occasion it took four attempts and the impression was of a very strong wind launch. Each attempt moving me back slightly to flatter ground – which actually only made it worse. Once airborne penetration was difficult at trim, yet my instruments only suggested 15 mph windspeed. A long into wind leg was slow (usually quite good on an M6) coming back downwind I expected a fast 55 -60 mph speed; again it only reached about 53mph at best at trim.

An hour or so later, against my better judgment I headed deeper into the hills about 7k south. I soon regretted it! Probably, only a small increase in windspeed, but I had penetration problems with forbidding terrain downwind (Haweswater). I also had a sustained period of rough surging air (characteristic of denser air) making speed bar use (necessary to get forward) somewhat harrowing – on the flip side I think the denser air mean less possibility of a collapse. It took a good, testing 15 minutes to ease my way out of Rampsgill Head. It **felt** very strong, but again, the windspeed was still less than 20 mph and I was around cloudbase (3,400' asl). Effective speedbar use was essentially without it I would have been stuffed – there are several lessons here. Make sure it's connected, you can get at it easily, it operates across the full range, you know that range for your glider (less in winter) and understand the possibly consequences.

Later, back near the car parking, I decided given the strong wind conditions (remember it felt that way, but was actually still giving only 15 mph) to land higher on open ground, as it slopes and is boggy near the cars. That was a mistake – another, I'd made two classic ones already. I landed in a 'mere' 14mph that felt in terms of glider behaviour like 25 mph and was going backwards at a fair rate. It wasn't a pretty landing had I kept my video on it would have been a bit Keystones Cops!

Again, as I packed up I thought how pleasant the wind 'felt' compared to how it 'flew'. Back at the cars it was almost flat calm.

From what I subsequently heard on the grapevine I wasn't the only one to experience the effects of dense, cold winter air. Certainly it reminded me to switch into winter mode when it comes to assessing conditions and to not assume that a nice breeze in summer should not be regarded in quite the same way in winter. They can be very different and a dense, December breeze may give you more than you bargained for. Be warned.

Winter Flying – A Cautionary Note (Cont) Ed Cleasby, Chief Coach

I've written these notes rather hastily (sorry if a bit ungrammatical in parts) to try to at least remind people to take extra care in winter and assess conditions with a different mindset. I think my previous article (look through late last year copies of Skywords or my website downloads) also touched on wave, cold air pooling, and catabatic effects other winter phenomena which need to be added to the list of considerations when winter flying.

Flying in winter can be fun, but remember to do a proper 'winter' assessment when going out at this time of year.



Glider/Reserve/Harness Servicing/Repair



The club is planning to offer the same service as last year, namely the provision of free transport to and from AeroFix near Keswick. The deal is that you drop off your glider/harness/reserve at the club night in January at the Horse and Farrier, and then collect it again at the next club night in February. That saves you a total of at least £30 in parcelforce collection/delivery fees, or even more in petrol. Note that AeroFix won't arrange to collect your glider any more so that's even more for you to sort out yourself.

The only proviso is that you need to label your kit with your name and contact details. Payment (by credit card) and any negotiation is entirely your responsibility; if it isn't paid for we won't collect it. Oh yes, and in this horribly litigious society that we live in I probably ought to point out that if the vehicle bursts into flames (or anything) with your glider in the back please don't expect us to replace your pride and joy.

Our experience of Kirsten & Nick at AeroFix is that they provide a thoroughly professional service. Check out their details at: <http://www.aerofix.com/index.php> A car is only so big, so if you want to take advantage of this service please book a place by email to mrbaxter@hotmail.co.uk **I need to know your name, what items you want servicing and a phone number.**

Martin Baxter

Morocco

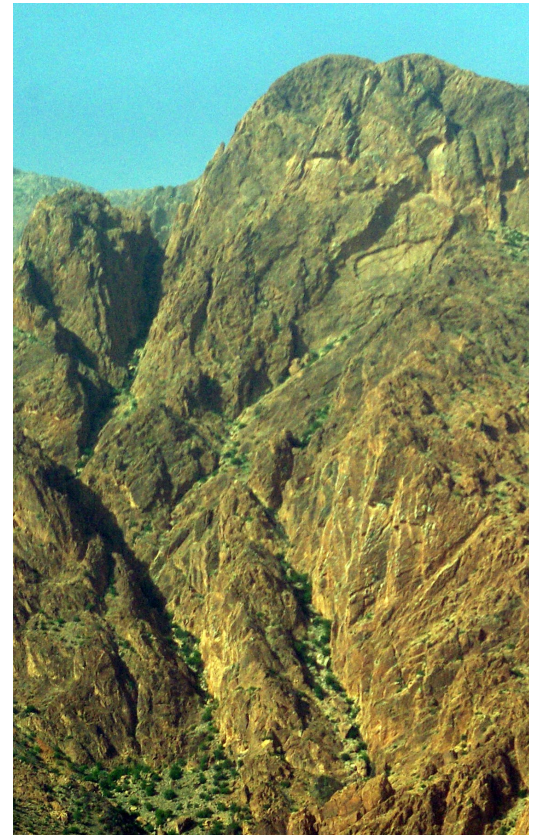


I had a brill holiday in Morocco in November—this is the first half of my account, more in the next edition of Skywings.

Tam

Tuesday 11th November, 7.30am. The blue minibus and battered hire car are heading out of Tafrouit on another cloudless African morning heading towards Agadir 100 miles away. The first few miles will take us past the main backbone of the Anti Atlas mountains for the last time, where yesterday the afternoon shadows had revealed the Lion's Head high up on the rock face.

It is exactly a week since I took off from Manchester on this late arranged holiday. A week? It hardly seems possible that we have only been in Morocco for 7 days. We have stayed at 3 different locations, flown on 5 days at 4 different sites, had walks on sunset beaches, through a Grand Canyon style river bed to a ruined though partially inhabited village, through Moroccan street markets, around beautiful rock formations which for some reason had had 18 tonnes of blue paint applied. The minibus had been stuck in the sand, and some of us had flown at nearly 8,000ft. We had received instruction from Toby Colombe, our engaging tour leader and recent addition to the British Paragliding team, and had received help on take off from his Japanese girlfriend Yuki—recent winner of the Gin Wide Open, and World Ranked No 3 female paragliding pilot. Some of us had attempted to follow her on an XC with varying degrees of success. And we had annexed all the available beer in Tafrouit.



Flights to Agadir from Manchester are pretty cheap. They leave early in the morning and are 4 hours long, thus raising the prospect of flying on the afternoon of the first day of your holiday, if there are sites pretty near the airport. On our descent towards the airport the Captain announced the local weather—light cloud, and light Westerlies—perfect for the coastal sites just a few miles south of our arrival. Our group of 8 guys (representing Southern Flying Club, Cumbria Soaring Club, somewhere around Glasgow flying Club, and yours truly) soon find each other once through customs—paraglider pilots are usually pretty easy to spot due to their baggage. I was easy to spot, but not because of my large back pack—I had packed my wing in a large pink suitcase to avoid the “sports baggage” excess. Whilst successful at avoiding the hidden extras, it was perhaps not the best choice for a safari type holiday in Africa though. Despite my protestations that everyone would be travelling like this in a couple of years, I don't think the rest of the group were convinced!



We were picked up about 30 mins later by Toby and whisked away to a local restaurant for the first of what would become a steady daily serving from tagines. Toby confirmed that the forecast was flyable for this afternoon though possibly a little strong, and stronger tomorrow. We would be flying this afternoon, and then stay locally and make up our minds on the best course of action in the morning. This also became the theme of the week—work out where is going to be best, and go there. Toby has a range of accommodations he has used, but is never tied to them—flying comes first, then think about where to stay—each week is therefore unique and tailor made to maximise flying time.

After lunch we drove the short distance to the coastal site of Tifnit where we found about 10 or so people already ground handling. By the time we got close to them it was clear that the wind was significantly off to the South making many attempts at soaring the 100ft high dune result in a bottom landing. We got about an hour of ground handling in, with some short beats up and down the dune, and sure enough one or two bottom landed. 10 mins was all I needed to half fill my wing with sand!



With the wind picking and an obvious bank of rain approaching across the Atlantic we packed up. Toby phoned the selected accommodation, confirmed our places and we set off further down the beach /dune / track for the 10km drive to the “camp site”. Pretty soon the track became indistinguishable from the sand, requiring several stops to ascertain the best way to progress. Several sections required a high speed surfing technique, which Toby explained to us, finishing by saying “ I shouldn't be telling you this, last time I did that we were stuck within 2 minutes”. Within 2 minutes we were stuck! All out and try to push. That failed. The rain band arrived on the strengthening wind. Luckily one of our convoy of 3 vehicles was a land rover, and so we were towed out. As the dusk gathered, the rain tailed off, and we made our way down the coast, requiring towing out maybe another 2 or 3 times. Just as dark drew in, we arrived at our campsite—a collection of 2/3/4 bedded “Bedouin Tents” with a shower / toilet block and a restaurant. As we selected our beds, Morad, Toby’s Moroccan assistant (and it transpires, a brilliant pilot) distributes copious quantities of beer. So a few hours after arrival we’re sat, having flown a bit, with the canvasses of our Bedouin style “tents” blowing in the warm evening breeze, getting to know our travelling companions for the week. Some mutual acquaintances are found, and familiar flying sites identified as people settle in. The adventure has begun!



The following morning the campsite and setting are seen properly for the first time. The campsite is not like anything I have stayed at before—a world away from the daily grind at home. The beach below the site is spectacular.



This dune can be flown in the right conditions. Unfortunately today the wind is too strong. Toby informs us over breakfast that the forecast is for lighter winds later in the afternoon, and that further south is a better bet, so we will pack up and leave. Our destination will be Legzira, around 50 miles south.

We leave at around 11.30, straight into a sandstorm. The miles of Moroccan scrubland are punctuated regularly by half built collections of buildings, particularly near the coast. Are they half built, or abandoned ruins? Its difficult to tell. What is easy to tell is that it is difficult to create a thriving business in this country. After lunch at Aglou, we turn down the offer of a camel ride along the beach, and head for Chez Abdul, on the beach at Legzira.



Unlike the “tents” the night before, this is a “proper” hotel, in that it has rooms and bathrooms and bed linen. It is however a beach hotel, in Africa, which welcomes paraglider pilots. It is very relaxed, with plenty of people about including a large Swiss party of pilots. We immediately mistake them for Germans and the usual quips about towels etc flow for a couple of hours over dinner (tagines) before someone spots our mistake. Still, it kept us amused.

The wind is still too strong to fly even down here. One of the party tries to fly a speed wing off the cliff, but its too strong even for that. Still we get a great walk before dinner, another spectacular beach, and a sunset to go with it.



The hotel, like everywhere we stay, is not licenced. However they have no objection to guests drinking their own alcohol. Toby has an ample supply in the minibus, and runs an honesty system throughout the week. The tables in front of us are soon full of empty beer cans and wine bottles, together with an increasing rag eared and indecipherable tally sheet purporting to be our accurate record of what has been consumed by whom. Some poor fool will have to try and decode this at the end of the week when it has another 5 nights worth of contributions on it!

The forecast for the morning is perfect for Eagles Nest, a site 30km North of Legzira. NW winds 18Kmh. We fly all afternoon in the light winds. Though the ridge is miles long, we get 20 minute flights before bottom landing and being whisked back up the hill by Morad. Toby gives site briefings, and is on hand to offer advice. Conditions obviously aren't brilliant, as even he bottom lands when he has a go mid afternoon. One or two manage top landings, including Yuki—though she spends most of her time running around making sure everyone is ok, laid out properly, making lunch for everyone. It's a stylish holiday when you are being assisted by the world No.3!





It's a well prepared take off, the best we'll use all week. There is a daily charge per pilot, so naturally we get as much value out of it as possible. Like everything on this holiday though (except beer and wine!), the cost is included and Toby just settles up during the day.

There's probably about 20 pilots on the hill, some still in training, but plenty of room for everyone to get away, and even more room to land!



We head back to Legzira in the dark, all excited to have flown and confidence built by the benign conditions. Itching to get more flying in tomorrow. The forecast however has other ideas. Very strong winds on the coast, unflyable all day. We will have to head inland to the mountains, so an early start is called for, though we may get some flying in the afternoon. But the best is yet to come!

Safety First - Slope Crosswinds

This is the tenth and last of Nigel Page's safety articles from his website <http://www.50k-or-bust.com>. Nigel is a senior paragliding coach, and has been a member of the national team. We are indebted for his permission to reproduce his articles in Skywords. They originally appeared in the Derbyshire Soaring Club Magazine.

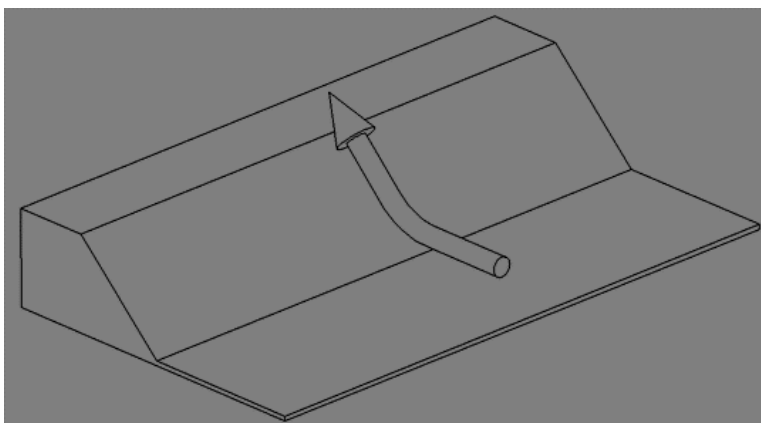
Nigel prefaces his articles as follows:

These articles are my best shot at covering some of the safety issues which seem to be poorly understood by some pilots. Most were written in response to serious accidents or incidents. I am conscious that they are only my own view of issues I have been able to identify. They do not constitute a comprehensive safety manual.

Some pilots fiercely condemn any attitude which appears at all negative. However, by their nature, safety articles tend to take this form and I make no apologies in this respect. Some also say such articles are just stating the obvious. This may be so, but pilots keep crashing. Perhaps the obvious needs to be stated.

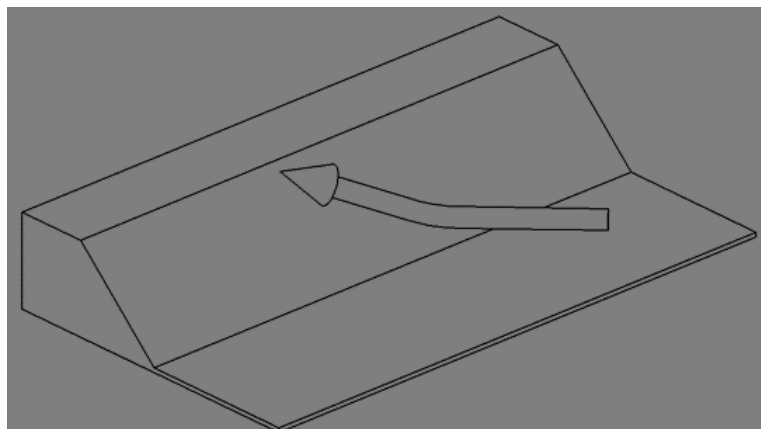
Slope Crosswinds

Let's have a look at some things which can happen when the wind is not blowing directly onto a hill. With the wind directly "on" a long ridge (diag.1) we assume that all the air will go up over it.



diag.1

What happens when the wind is not directly "on" the hill?

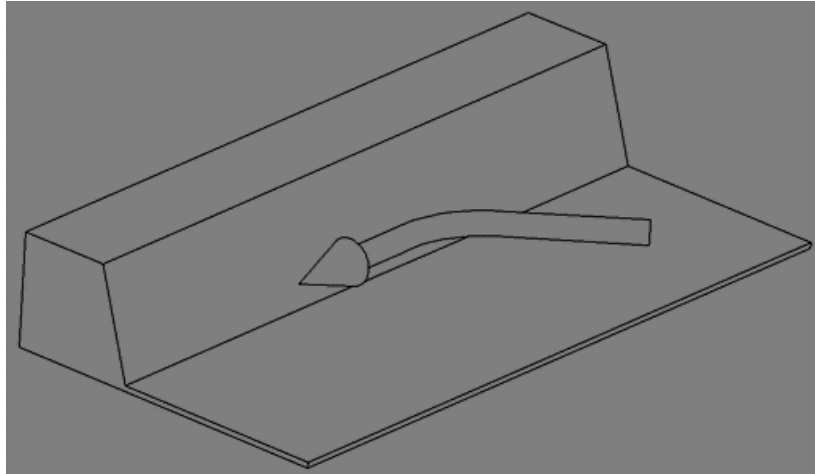


diag.2

Safety First - Slope Crosswinds (Cont)

Air is deflected partly upwards and partly along the slope (diag.2). The air is deflected less upwards and there is less lift than when the wind is directly “on” the hill.

What if the hill is very steep?

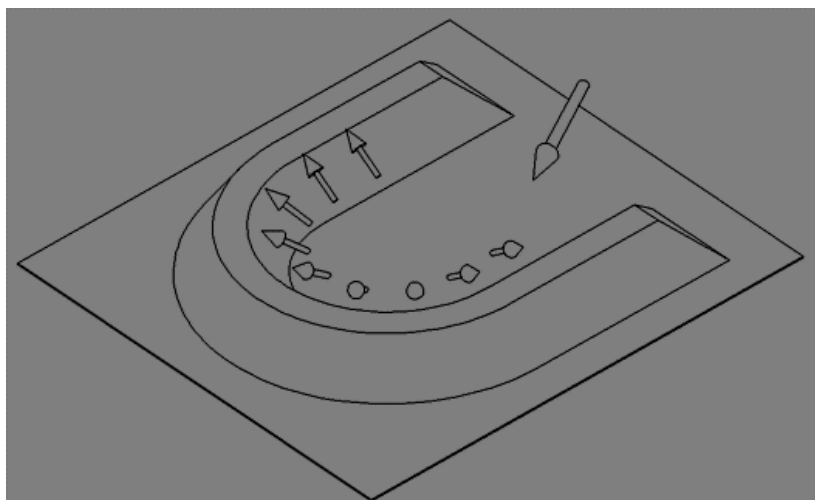


On the steep slope (diag.3) air is deflected more horizontally than with the shallow slope and as a result we have even less lift. This is opposite to what we might expect if the wind was directly “on” the hill, almost counterintuitive. With the wind blowing strongly across the slope any lumps and bumps on the surface are going to create turbulence too. Not a comfortable place to fly!

When the wind is not directly “on” the hill shallow slopes often work better and more safely than steep ones.

If the wind direction is too far across a hill it usually becomes unsoarable. However, it is sometimes surprising how “crossed” the wind can be and it still be possible to soar. Thermal action may “help” the slope lift and “pull” the wind onto the hill, but other factors can increase the lift on a slope too.

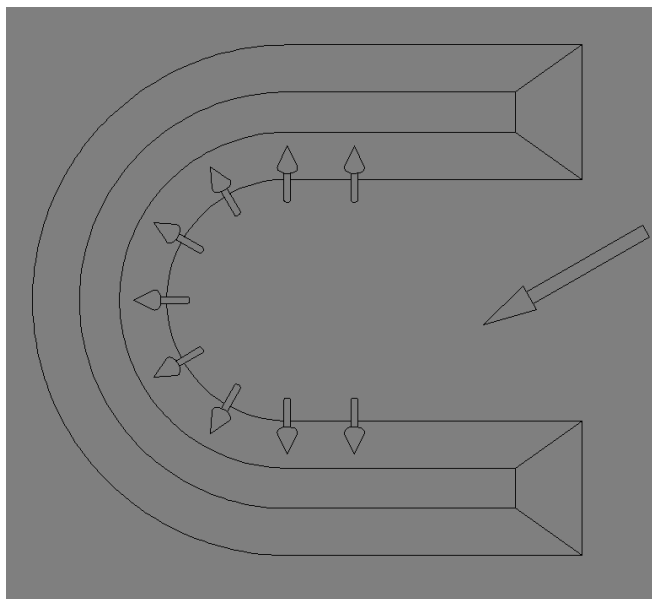
Sometimes lift is produced where wind blowing into the open end of a “dead end” valley forces air upwards around the rim (diags.4,5).



Diag 4

Safety First - Slope Crosswinds (Cont)

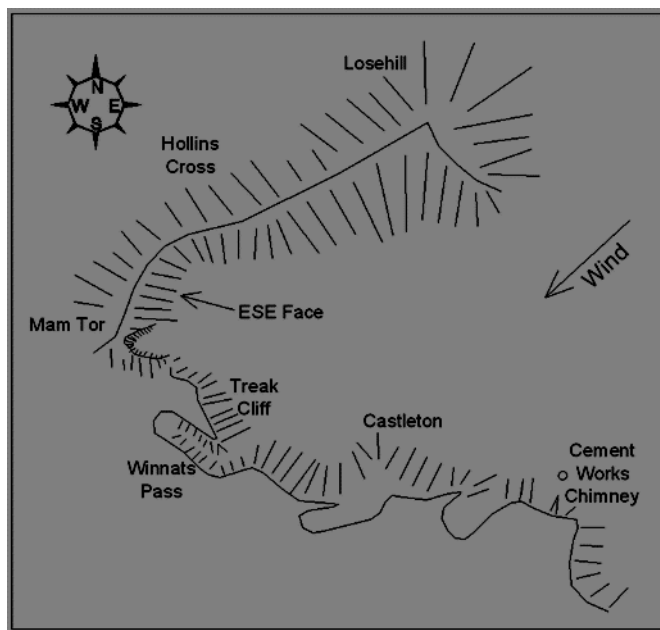
The geostrophic (meteo) wind is blowing into the open end of the valley at an angle, but air is still forced up all round the bowl at the end.



diag 5

These diagrams are exaggerated, but we might be able to soar all of the bowl even with the wind blowing only approximately into the end of the valley. Look familiar?

This sort of condition sometimes occurs in the Hope Valley enabling us to soar large areas of the west end in easterly winds. Diag. 6 shows the valley in a NE geostrophic wind.

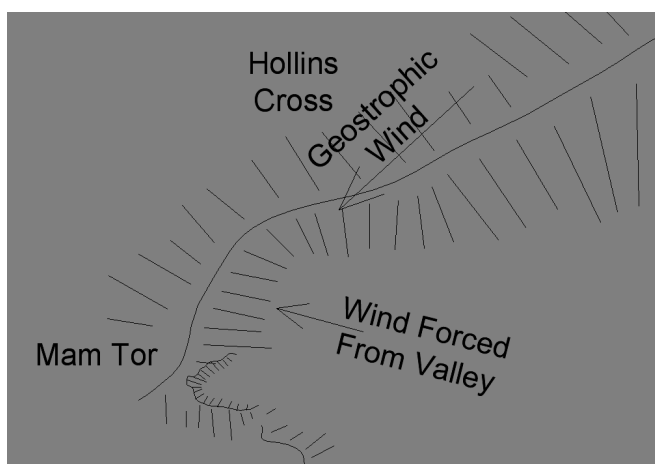


diag 6

Some time ago before the cement works emissions were cleaned up it was much easier to see the direction of smoke from the chimney than at present. The smoke would show the approximate geostrophic wind direction quite clearly. It appears that we can sometimes soar from the SE face at Hollins Cross round to Treak Cliff and the NE face near Castleton in any approximately easterly direction.

Safety First - Slope Crosswinds (Cont)

Smoke or no smoke this is fine when it all works, but sometimes things are not so simple. Let's have a closer look at what can go on in the area around the ESE face of Mam Tor in a NE geostrophic wind (diag.7).



(diag.7)

Air forced up from the valley enables us to soar the ESE face of Mam Tor which is higher than the rest of the ridge. The NE geostrophic wind may not affect us here or may only make it feel as if the wind is a bit "off" the hill. However it may come over the lower ridge towards Hollins Cross as occasional gusts making the ESE face an area of potential turbulence and sink.

It pays to be aware of the direction of the geostrophic wind. Any steep slope with the wind strongly "crossed" should be flown with extreme caution. It may feel OK but may suffer unexpected and severe gusting and sink. If we find ourselves caught out this way we should resist the temptation to try and slope land in such difficult air. Much better to put some space between ourselves and the hill. If in doubt, run away and land somewhere safe!

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We are truly indebted to Nigel for his permission to use his safety articles in our mag. However, we have now used up his run! My conversations with members have suggested that this has been a popular feature—"good to get any advice that is going" would sum up the comments I have had.

In view of this, I am delighted to announce that Judith Mole has agreed to let us use her articles in the future. Judith has in the past published her articles via [her website](#), and [The Paraglider online magazine](#)

Tam





HIGH SIERRAS

Guided XC and thermal coaching in Southern Spain, for novice and experienced pilots Fly with Chris Williams who has been flying and guiding in the area for over 20 years.



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Contact: Chris Williams
UK: 00447973222713
Spain: 0034608598083
Email: chris@paraglidespain.com
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*Offer finishes March 2015.

See website or call for details.

www.paraglidespain.com

mailto:chris@paraglidespain.com

UK:00447973222713

Spain:0034608598083

Club Coaches. This is an up to date list of Club Coaches.

Dales Hang Gliding and Paragliding Club - Coaches list (November 2014)

Name	HG/PG	Location	Phone	Email address	Availability
Trevor Birkbeck	HG	Ripon	1765658486	trev.birkbeck@gmail.com	Various
Steve Mann	HG/PG	Kirkby Malzeard	1765650374	stev.andbex@btinternet.com	Weekends
Kevin Gay	HG	Ripon	7794950856	krgay@talktalk.net	Various
Ed Cleasby SC/CC	PG	Ingleton	7808394895	xcflight@gmail.com	Various
Rob Burtenshaw SC	PG	Oxenhope	7747721116	burtenshaw@fsmail.net	Sun and various
Peter Balmforth	PG	Leeds	7714213339	peter.balmforth@ntlworld.com	Weekends
David Brown	PG	Ingleton	7757333480	d.brown208@btinternet.com	Various
Alex Colbeck	PG	Harrogate	7717707632	alexcolbeck@hotmail.com	Weekends
Kate Rawlinson	PG	Colne	7976510272	katerawlinson@hotmail.co.uk	W/e & school hols
Kevin McLoughlin	PG	Lancaster	7767652233	kevin-mcloughlin@hotmail.com	Weekends
Martin Baxter	PG	Wetherby	7775785479	mrbaxter@hotmail.co.uk	Weekdays
Toby Briggs	PG	Pateley Bridge	7582156471	tobybriggs@btopenworld.com	Various
Fred Winstanley	PG	Higher Bentham	7770741958	fredwinstanley@sky.com	Various
Richard Shirt	PG	York	7786707424	rshirt@advaoptical.com	Weekends
Simon Goodman	PG	Leeds	7720061200	simon.goodman@talktalk.net	Various
Andy Byrom	PG	Keighley	7796421890	andy.active@unicombox.co.uk	Weekends
Dave Coulthard	PG	Leeds	7595895149	d.coulthard2@ntlworld.com	Weekends
Sean Hodgson	PG	Haworth	7999606084	sean@ogj.me.uk	Various

Club Coaches are pilots who have expressed a wish to help less experienced or new pilots find their feet in the Club environment. It could involve site information/briefings, developing and advising on practical flying skills, assisting on coaching days or helping pilots prepare for exams or invigilating exams. All coaches have been endorsed by the Club and undertaken some BHPA led training - they also need to do some coaching during the year to further develop their coaching skills and to retain their rating.

Please make use of their skills and experience to further your own skills and knowledge.

Ed Cleasby
DHPC Chief Coach/Senior Coach
November 2014

Anyone wishing to become a Club Coach should contact me directly for any advice or be proposed for training.