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NOVA

The Magazine of the Avon Hang Gliding and Paragliding Club

February 2006

On the cover: Flying Himachal Pradesh. Photo: Mike Humphries.

Editorial

I feel that as Editor I should have something controversial to say, or at least have a comment on something controversial. So here goes: Those shopping trolleys with wonky wheels – they're really naff, aren't they?

Well, with that out of the way, I can tell you about what's in this issue. It comes out just as the flying season is about to start, and it's full of advice about how to make the best of your flying this year. Firstly, Alex Coltman gives us ten essential tips for XC flying. Remember those and you too will be a sky god. No really! Talking of sky gods, Neville Almond tells us how to use sea breeze convergence, or if you prefer, how to avoid getting anywhere near a sea breeze. We also get some practical advice from Ken Wilkinson for anyone wanting to venture to Bir this year. Last year's Bir trip was a great success, so I imagine that it won't be long before some Avon pilots head that way again.

Talking of flying in far-flung places, we continue our series on members who have gone abroad, with an update from Stephen Chiles on what he and Lisa have been up to since they emigrated to New Zealand in 2004. And Pete Douglas describes a fantastic flight he made in Mayrhofen last year as a warm-up to the Open Championships. We also have news of the latest development in harness design from the US.

And continuing Nova's mission of encouraging customer-focused synergy in a proactively risk-managed environment, we've got some safety news and some cool tips to make your flying an enjoyable user-centric experience.

My thanks go to all the people who contributed to this issue – all the articles and photos are excellent! Please let the authors know how much you appreciate their writing when you see them next. And don't be shy, if you haven't written something for Nova before, please put finger to keyboard. We'll all enjoy laughing at it, erm, I mean enjoy being hugely entertained by your efforts... (Note to self: find a better way of saying that later.)

Just one more thing – about two thirds of club members have opted to receive Nova by email, but producing Nova on paper for the remainder costs a significant amount of money. If you would like to save the club some money so that it can be spent on other things (sites, club nights, and everything Bigus Dickus mentions in his Chunter below), please let Andy Bailey know that you would prefer to receive Nova electronically. Andy's contact details are at the end of this issue.

Thanks,

Richard Danbury



Crossing the big gap across Southampton, in between two convergence lines, looking north over the docks & city centre (before the class D airspace!)

**Photo: Neville Almond
(Read Neville's article on sea-breeze convergence elsewhere in this issue)**

NOVA is the newsletter of the Avon Hang-gliding and Paragliding Club. The views expressed in this magazine are not necessarily those of the Editor, or those of the Committee of the Club.

NOVA can be found online at www.avonhpgg.co.uk

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Copy deadline for the next issue: Monday 15 May 2006.

Chairman's Chunter

Well it looks like spring is finally on the way after the sun eventually broke through the murk. Although it has been pleasant to get to work and then watch the sun come up, I'm quite happy for it to beat me to it.

Spring is all about looking ahead, and anticipating the joys of a cracking season, spotting the first signs of Weatherjack stirring from his winter hibernation, and watching for the start of the annoying mid-week posting on the flying diary. Personally I'm rather focussed on the imminent arrival of our first baby, so for once flying is not top of list, but I know what everyone else is looking forward to!

Your committee has been beavering away through the dark winter nights to get the club ready for 2006. There are three things we want to focus on: Safety, Membership and Social. Focussing on Membership, in the words of a poster that famously put Jerry in his place "Your Club needs YOU!"

And indeed we want your family and friends too. We want to get the membership numbers up since the more members we have, the better we can represent our interests and ensure we maintain the privilege we have to fly our sites.

When your membership renewal form drops onto the doormat in April, please resist the urge to file it straight in the "to do" pile with your tax return or stick it next to the stack of pizza delivery fliers and the copy of the local free paper. All we are asking is about one and a half minutes of your time, and a small cheque!

Annual membership is one of the cheapest of the major non-London clubs, and costs less than half a tank of petrol. And if after a relaxing afternoon watching the Life of Brian you find yourself wondering where your money goes and "What has the club ever done for us", have a think about the following:

Firstly, sites. We have some cracking sites in our bag, Westbury, Mere, Frocester and Selsley being the favourites. Your sites officers work tirelessly to entertain and amuse the landowners, bribe them with booze and keep them marvelling at the wonder of free flight rather than viewing it as a nuisance and a hassle. This effort, combined with a significant investment in site fees, ensures we have a great set of sites available for your freeflying pleasure. Not only do we have the sites themselves, but we have also negotiated the right to open the Bath Gap, which took a lot of effort from your sites team, and means that the XC routes over Bath are still open to us.

Sticking with the Life of Brian theme, if sites are our roads and aqueducts, the coaching setup is our Forum and Baths! Whatever level of pilot you are, there is someone within the club who is there to help you improve. For the fresh-faced CP, wondering where to go and when to fly, your Low Airtime contacts, Ian Mackenzie (PG) and Neil Atkinson or Tony Moore (HG), are there to help you find the right sites on the right days to get that flying log filling up.

We have plenty of club coaches, and are re-vamping our club coach structure to make it easier for you to find one. They are there to help you, so if someone approaches you to suggest that normally in winds above 15mph, the average pilot would probably not attempt a forward launch in front of the spectators at Westbury, that's probably a coach trying to take your best interests to heart. We would like you to approach them, so will be making it a lot easier to find a coach at whatever site you choose to fly.

We are also looking at an advanced coaching setup. Whatever level you are at, from competing for the first time in the BCC to heading out to the Nationals, we have a panel of experienced pilots who can help you set your goals, work out a training plan, discuss your kit etc. If you want to push your flying up a notch, don't just do it on your own, use the years of experience and advice in the club to help you. More details on contacting the Advanced Coaching team on the website.

And thirdly, the social Circus Maximus. Firstly there are the monthly meetings, where your Social Secretary pulls strings, favours and the occasional folding incentive to bring a fantastic range of speakers to entertain you. Not to mention the opportunity to have a beer or two, catch up and meet new pilots. Then there is the Mere Bash, which goes from strength to strength every year, and the Xmas party, a roaring success last year (If you missed Ken Wilkinson breakdancing in a hooded speed top, you can probably find the photos on certain "special interest" websites). And of course the informal camping weekends in Llangattock, the May trip to Snowdonia, the holidays abroad, etc etc.

That is just some of what your club does for you, in the pursuit of keeping us all flying safely, on great sites, in the company of a like-minded group of people. So as you fill up the car to head off to Westbury with a day pass in your pocket and the first puffy cu's forming, spare a thought for your club, dig the membership form out from the post pile when you get home, and sign up for 2006.

Safe flying,

Richard.

News

Alex in the British Squad again

Alex Coltman has again been selected to be one of the 15 pilots who make up the British Squad. Membership of the squad is the main route to selection for the UK national team. When making their team selections, the Competitions Panel closely watches the performance of the squad members, looking for both strong individual achievement and strong support for the team as a whole. Good luck Alex!

Westbury litter pick

Avon members spent a chilly morning in November picking up litter at Westbury. As the picture shows, a great pile of burger boxes, beer cans, spent fireworks and less savoury items was collected. And as you can see from the steam coming out of Tim's ear, it wasn't flyable, so that's all right then.



2006 British Clubs Challenge

Fancy doing your first cross-country flight supported by more experienced pilots, and with the incentive of a friendly competition? The British Clubs Challenge (BCC) is an informal competition that is designed to encourage paragliding and hang gliding pilots to improve their flying and cross-country skills. Teams from clubs across the UK compete against each other in a series of rounds during the spring and summer months. The competition culminates in a finals round which determines the winning UK club.

Any pilot with a Club Pilot rating is encouraged to take part. There is no limit on numbers, and each club can enter as many teams as it likes. So if you fancy taking part, have a word with Ken Wilkinson (for PG) or Neil Atkinson (for HG), and take a look at the BCC website, www.flybcc.co.uk.

Avon to be top club!

Neville Almond asks "Will Avon be the top PG and HG club in 2006?"

I think we stand a good chance. Our PG pilots already seem to place very highly on a regular basis, and there seems to be a growing undercurrent of enthusiasm from the HG mob (formerly known as the 'sandwich and flask' brigade). Wouldn't it be good to get the 'double' – i.e. win both HG & PG leagues? I don't recall this having been done before (certainly not during the last six years, as I don't think the Notts aerotow group microlight would have enough power to tow PG's!).

We've a good smattering of experienced HG pilots already champing at the bit. Indeed, Avon is currently winning the winter XC league with Justin Needham's 43km triangle (in January). Tony Moore (who was having similar thoughts and inspired

these words) is already preparing himself, and we've a smattering of new converts to rigids (Colin Hale, Sean Worlock and, from April, Geoff Adams), where hopefully their machines can be put to good use in attempting defined flights. Neil and myself will no doubt be entering flights as usual, and hopefully we can persuade the old master (Kevin Winter) to participate – back in the early 1980's Kevin would often be absent come the afternoon!

Defined flights could be the easy answer – if last year our four top pilots had averaged 6 declared out-and-returns (6 flights are allowed) of 24 miles then Avon would have topped the league! (Note: pre-declaration gives a x2.5 bonus, or x2 if not declared). Such flights would mean flying to a declared turn-point 12 miles away and coming back, which on a light wind day is probably around 3 to 4 glides upwind on the outbound leg, and one glide to get back. Better still, for most the flight you are within gliding distance of the airfield. The worst-case scenario is you won't land too far away, and I'm sure getting retrieved in these circumstances will be much more palatable than the East coast/Eastbourne alternative!

Richard Harding's proposed Avon site improvement (to add a crystal-ball bulletin board of 'What's coming up and what we're going to do') so we can swap ideas and converge on the best site sounds like an excellent way of getting this going. I'll be getting some pre-prepared turn-points together to make it easier on the day. Let's make it happen!

Discussion forum

Owing to poor performance by Smartgroups, the club's online forum has been moved. It is now hosted by Yahoo, and can be found at <http://groups.yahoo.com/group/avonhgpg>.

Christmas party – points mean prizes!

The Christmas party was a great success. It was held in Bonghy Bo's in Bath, and there was much hedonism and cavorting to the sounds of DJ Tim. It was so good that it wore out Staff's loudspeakers, and several members commented that it gave them a head start on their New Year's resolution to lose weight. If you missed it, you missed out! The prize giving for achievements in 2005 was held, and here are the results.

In the paragliding XC league, 4,918km were flown by 32 pilots in 156 flights (Avon's best year ever!) The prizewinners were:

- 1st place with 506km from his top six flights – **Alex Coltman**.
- 2nd place with 492km from his top six flights – **Wayne Seeley**.
- 3rd place with 378km from his top six flights - **Jim Mallinson**.
- Longest XC flight went to **Alex** for his 174km flight from The Lawley.
- Longest DHV1/2 flight went to **Ken Wilkinson** for his 80km flight from Merthyr.

In the hang gliding XC league, 88km were flown by three pilots. The prize-winner was:

- 1st place with 214km – **Neil Atkinson**.

The other prizes were as follows:

- Most improved pilot went to **Martin Nichols**. Fortunately for Martin, disprovements (e.g. to legs) are not taken into consideration.
- Best newcomer first place went to **Andre Odinius**.
- Best newcomer second place went to **Nick Somerville**.
- Best newcomer third place went to **Sarah Ward**.
- The Dave Yeandle Memorial Trophy (previously the Easter Cup) went to **Ken Wilkinson** for his 30km flight from Pandy. (See Ken's write-up in this issue.)
- The award for best Nova article(s) went to "Piedrahita's Flying Fiesta!" and "Open Season" by **Richard Zaltzman**.

Everyone brought their photographs to the party, and the assembled partygoers judged the best as follows:

- Best photograph first place went to **Ken Wilkinson** for his alpine choughs.
- Best photograph second place went to **Stafford Evans** for his vulture.
- Best photograph third place went to **Will Price** for his memorable photo of wotsits and thingys.

Various shields and items of silverware and glassware were presented, along with prizes from the following sponsors:

Robin Brown of Airtopia – a flying suit

Carlo Borsattino of Windtech - T-shirts, bags, windsocks etc.

Nick Mallabar of Swing - a SystemX headset.

XC Magazine – DVDs

Many thanks to them for their support!

Ten Tips for Cross Country Flying

Alex Coltman has been flying for ten years, and more seriously for five. His first competition experience was in the Airwave Challenge (now the British Clubs Challenge). He then did the BP cup in 2000 to see what competitions were all about, and finished second. He went on to enter the British championships in 2001. The British championships have taken him to lots of great and varied flying sites around Europe, from the flats of Piedrahita to St Andre and Castejon. He has also spent two seasons in Australia flying both the Manilla and the Bright comps. His previous personal best was 144km from Manilla but he says he 'fluked into an amazing day' and flew his prize-winning 174km from The Lawley, near the Long Mynd, last year. He has been in the British Bleriot Team twice, and was in the squad last year. You too can fly like Alex simply by following the advice in his top ten tips.

There are many ideas as to how to fly XC. What I intend to do here is outline ten areas which will pay dividends whether you are looking at getting your first XC flights in next season or whether you feel you are not getting as far as you could. They are not necessarily my ideas but I have listed tips that I have picked up in my flying and which seem to work for me.

1) Equipment

It is important to be comfortable with your equipment. For XC flying in the UK glide at speed is relatively unimportant so high DHV ratings are not required. Far better to be on a glider you like, enjoy and trust.

I would recommend anyone looking to fly XC to invest in a mapping GPS and learn how to use it. They remove the navigation role almost completely and in conjunction with an air map make avoiding airspace easy and accurate.

Ask someone who has one to show you what all the fuss is about!

Links to websites with free air map software are on Tim Pentreath's Avon XC website (www.avonpgxc.co.uk).

2) Site choice and planning

Site choice is a bit of a black art. With experience you will get an idea of which sites work best in which direction. Knowledge can also be gained by looking at the Avon XC league website database. I would say our nearest bigger sites (SE Wales) are easier to get away from but distances over 45k are difficult. Smaller sites (Avon) are more difficult to leave but are often more consistent over the back. So pick a site that suits your aspirations.

Planning can be done during the winter evenings, the night before and in the morning before setting off. It could include an idea of likely track, airspace issues and maybe even the first few thermal sources. Some pilots plan much more than I do so this is a very personal thing.

3) On site arrival

A quick check on conditions. Ask people how it's been, check out clouds for drift and longevity while getting rigged. Then get in the air as soon as possible. You are not going to leave the hill by talking to your mates about how much you would like to. YOU HAVE TO FLY. Once in the air be very attentive to what is happening in the air. Watch other gliders, birds, shadows and clouds – they are all giving information. If you come across a thermal while slope soaring the core is often upwind so turn and explore away from the hill. If you see a glider climbing it's the best sign of a thermal, join correctly (see article on skytribe website) and try and give enough room or it's spoilt for everybody, though most pilots will welcome someone else to help track the climb.

4) Efficient climbing

So we have a climb. Take a few quick 360s to establish the climb then start carefully looking for more lift. Straighten up for a couple of seconds towards the faster side of your 360 then continue the turn. If you go too far then come back a little way but always move the 360 following the lift. It is very rare to be able to just go round and round! Once high it is often possible to widen the 360 and find much more powerful climbs some way from your 'core'. Also, it's worth looking upwards even at this stage as often a cloud will 'blossom' over you as you climb. This will lead you to the best part of the lift or back to the thermal if you've lost it. Often the part of the cloud where the best lift is will be the same for subsequent clouds too, making searching under subsequent clouds easier.

5) Downwind awareness

Once established in our climb and getting high it pays to start taking quick glances downwind. We are looking for good clouds (See tip 9) or other signs of a next step. Also we may be looking for landmarks to aid navigation once we leave. As you get more used to thermalling more time can be spent planning the next move or moves.

6) Leaving the hill behind

This is often difficult as on the hill are your mates, your car and maybe your lunch. However the fact that you have read as far as tip 6 means you want to go XC. One useful technique I have used is to set myself a cut off altitude of 1000ft ATO. Once this was reached I would never land back at the car, always going with whatever climb I had. The car was no longer an option and therefore I didn't have that decision to make. I figured I would learn more from just finishing the climb, a glide and an out-landing than another few hours of soaring. Sure, it will result in a few 10km flights and some walks but it will also reward you with some unexpected XC flights.

7) Decision making (i.e. finding the next thermal)

This is the critical aspect on any XC paraglider flight in the UK as often cloud base is so low you only get one go. If it's wrong you probably land. A very good pilot once told me if you ever find yourself just gliding with no plan then you have made a mistake. He used to plan two and sometimes three steps ahead, but that comes with experience. Let's just deal with one.

A technique that works for me is to actually stop climbing and talk out loud about what options I have. This makes it a very conscious decision and means I have weighed up as many options as I can see. So THINK, look at the clouds, can you reach a good one (again tip 9) nice and high? Are there any birds, sailplanes within a glide? Are there signs on the ground of a thermal (i.e. smoke showing converging winds)? If not then try and stay, relax and drift. If you are already at base it is always possible to fly out of the climb, loose some altitude then return or thermal round the outside. On most UK flying days you are covering ground thanks to the drift and you are always looking for a cloud starting to form.



Looking towards Sugar Loaf on an XC from Merthyr. There is a very important decision here as the ground drops away afterwards and one would expect the air for a few km beyond to be very sinky. It's too late to check out good clouds, but the shadows still give a good idea of a possible route.

8) Speed

A very technical subject but for most XC pilots a few general rules apply:

- Slow down in lift
- Speed up in sink
- With a high ground speed slow down
- With a low ground speed, speed up

On most gliders use of more than half bar deteriorates the glide too much so only use in very serious sink or if gliding to a very good lift indication.

NOTE: Speeding up a paraglider diminishes the glider's passive safety. Use bar with caution and with altitude to spare.

9) Clouds

This is vital. Cumulus clouds are made by thermals. A good cloud is a young cloud. Signs to look for are:

- A visibly growing small cloud
- A nice shiny white colour
- A hard flat base, not fluffy
- A sharp defined top to the cloud, not smudged or wispy

If you are on XC and you see a small cloud appear and grow within easy reach then get there soon, it's the best sign there is, other than a climbing glider. There are lots of relevant books on clouds and meteorology and although most are a tedious read its all useful stuff.

10) Landing out

This worries many people but is often safer than flying on a busy ridge if you allow time/altitude for a good look round. Depending on your lens type and vision it may be better to take sunglasses off when looking at landing fields. It's often easier to spot power lines without them.

Look for:

- Posts, poles, pylons and lines
- Livestock
- Crops
- Road to civilisation
- Way out of chosen field

It's often good to talk to people on landing. Be prepared to talk about paragliding even if it's boring for you to keep explaining. They may give you retrieve advice or even a lift.

Finally, enjoy all your flying! The flights without the fast climbs and big distances are often the most pleasurable and memorable.



Gliding west from Col De Bleine in France during last year's Bleriot Cup. A French pilot is leading out on the blue mantra with Kelly Farina (right) and Craig Morgan (left) keeping a watching brief. The next turn-point was on end of the ridge to the far right. Fluffy decaying clouds in the foreground, but nice, bright, sharp and hard-based clouds in distance, giving an easy decision. Note that the pilots are spreading out looking for best line and next climb.

Flies Like a Fly

From Nova's US correspondent

Paragliding equipment manufacturer Zipfly is hardly known outside the USA, but if its impact in North America is any indication, it is soon to cause a big stir in Europe. For a year now, US pilots have been able to buy the company's Paradiddle harness, a harness that provides active-flying inputs to the paraglider's brakes. The system is so responsive that brake inputs are made before the pilot has had time to sense the need for them. So much so, says the company, that pilots with as little as 20 hours airtime can fly competition wings in complete safety.

Zipfly, based in McVille, North Dakota, boasts some of the best technical minds in paragliding design. Chad Valley, the company's Chief Technical Officer, previously worked at the US Defense Advanced Research Projects Agency (DARPA) on miniaturised unmanned remote-reconnaissance aircraft called Tiny Over-Yonder Sensors.

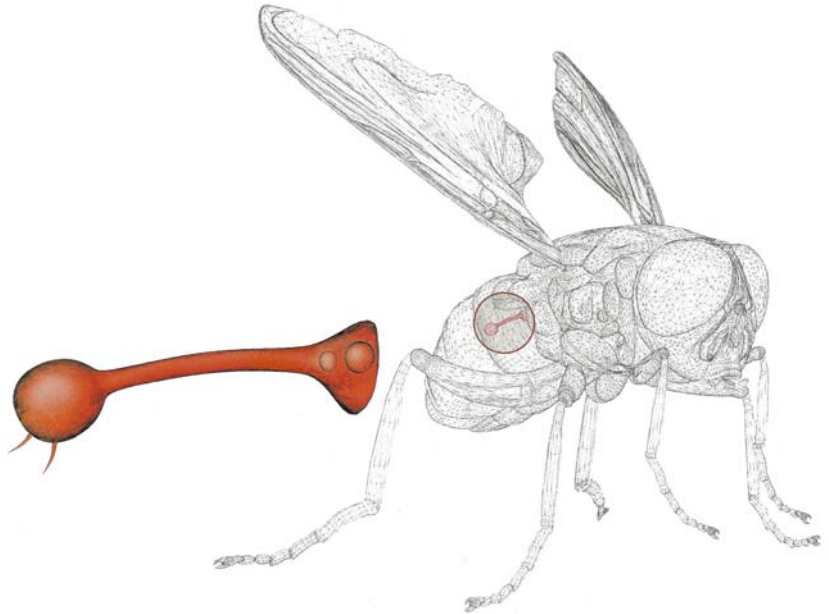
Chad's associate is Holden Hiscock. He studied bio-mimetics at the Massachusetts Institute of Technology (MIT). "Bio-mimetics," he explained, "is the science of learning how animals and plants overcome challenges, and using that knowledge to overcome the challenges faced by us humans." Holden and Chad met by chance at a symposium and immediately saw that they shared a great many interests. "Not only were we both passionate about paragliding, but we also had complementary technical expertise," said Chad. "And besides, I thought Holden was kinda cute."

Holden had recently completed a sophomore project on the mechanics of insect flight. A key area of study was the manner in which houseflies stabilise their flight. They have drumstick-shaped appendages below their wings called "halteres" which vibrate according to the motion of the fly's body (see illustration). "Without their halteres, flies cannot fly," said Holden.

It was then that Chad and Holden hit on the idea of building halteres into a paragliding harness. "Every small movement of a paraglider is transmitted down the risers to the harness," says Chad. "We figured that you could attach halteres to the harness, and the movements of the wing would cause them to vibrate. If you designed the halteres right, and linked them to the brake lines, the vibration of the halteres would automatically make the necessary brake inputs to stabilize the wing." Holden took up the story: "It's rather like the automatic flight computer on a fighter jet," he explained. "A fighter has to be inherently unstable to make it agile enough for combat flight. Without the flight-control computer making automatic adjustments to the flight surfaces, the pilot would not be able to keep the machine in control."

If the test data are to be believed, the results are nothing less than remarkable. Chad and Holden took a Boomerique, linked their haltere-equipped harness to it, and loaned it to their local paragliding school. "In no time at all the students were making training flights in strongly thermic conditions without a trace of a collapse," said Chad. "Soon," said Holden, "we were confident enough to try it ourselves."

The paradiddle harness has been on sale in the US for a year now, and already sales of certified gliders have fallen dramatically. "Everyone is buying uncertified high-performance wings now," said one manufacturer. Zipfly is set to launch the harness onto the unsuspecting European market around the time that Nova goes to press. The 2006 flying season promises to be an interesting one!



A housefly uses halteres, drumstick-like protrusions on its thorax that vibrate with each wing beat



The Lonely Pilot's Guide To New Zealand

Stephen Chiles' tales from beside the (other) Avon

"I've just had an episode....did you see it ?" I'm already a bit anxious about flying today and Jean's proclamation from 4000ft puts the final nail in the coffin as the possible meanings of the French-Canadian term "episode" whiz through my mind. And so our first day's flying in New Zealand is restricted to some girly coastal soaring on the way home.

Having been here just over a year now there's no hiding from the fact that Christchurch (and nearby hills) was not a great move for paragliding. When it's good it's really good but those days tend to be well scattered. Also, most of the time my childlike concentration span means that we don't wait for conditions to come right and end up going off tramping (hiking), biking, climbing instead...and New Zealand certainly caters well for loads of these other activities. It's interesting that at para-waiting competitions here virtually everyone has at least a mountain bike with them. Most also have a few other toys such as kayaks, climbing gear, kites... It makes packing the car when heading off to a competition quite an effort (even with our oversized van)!

Paragliding in New Zealand

Pick your location carefully! Whilst there is reliable coastal soaring in many places, XC conditions can be very temperamental: everything heats up in no time and air whooshes up (and down) the mountains in a far more paragliding unfriendly way than in other countries. New Zealand is relatively narrow and weather systems whip in from the Tasman Sea meaning you never really know whether you're coming or going. Best bet in the South Island, where most of the good XC flights have recently been happening, are sites around Wanaka and near Nelson.

In the UK an XC pilot may be lucky with flexible work to catch the good midweek days – however, over here you need a very understanding boss: many valleys will be a few days walk out. The good news is that airspace is fairly uncluttered and people stop for hitch-hikers.

So why were at least ten Avon club members out here last summer ? Awesome countryside, warm weather and fantastic quality of life – with a bit of paragliding thrown in for good measure.



Lisa soaring Castle Rock in Christchurch

Living in Christchurch gives several options for flying. We're on the edge of Banks Peninsula which consists of two extinct volcanoes creating plenty of hills. Although I've not managed it myself yet, the XC from the hills behind Christchurch over the two sea-flooded volcano craters to Akaroa is one of the best in the country. However, being surrounded by sea means the XC conditions can be short-lived. A far better option is to take the hour's drive into the alps where the first place you get to and main flying area is the Craigieburn range.



Craigieburns pop 5 (Keas)

Like most popular NZ flying sites, the favourite launch area at the Craigieburns is by a ski-field road. The Kiwis are reasonably unfussy about spoiling the natural beauty with roads gorged out of the hillsides – good thing too as it saves us one hell of a walk up! In fact, the observant of you will have spotted this paragliding take-off in Narnia. Photo above right is of Lisa and Jean climbing in the Craigieburn valley and below was my first time back at cloudbase since coming to NZ – when it's good here it is really good!



Tramping

New Zealand is near perfect for walking up and down hills – there are certainly lots of them and we've spent many weekends out and about, generally staying in backcountry huts that are all over the place.



.....things to do in NZ winter ☺



Looking ahead.....we've got no idea at all what we'll be doing! The move out here has been great and we certainly intend to stay in NZ for the foreseeable future. We bought a small bit of land up on a hill in Christchurch but have recently got cold feet about the house we were going to get built there. Thankfully the landlords for our city centre apartment (Tim and Elly) haven't chucked us out yet! Both of our jobs are going well: Lisa was in Intellectual Property in Bath but there's not enough of it round here so she's retraining as a Legal Exec; my work (or at least the travel) has been better than expected with projects in Fiji and Melbourne so far and a trip to China coming up. I'm also back in Europe for a conference in May so hope to catch up with you all then.

The Good Bir Guide

In October last year, several Avon pilots sneaked off to Himachal Pradesh in Northern India without telling anyone. The village of Bir has become quite a magnet for pilots from all over the world, especially since it hosted the pre PWC competition in 2003 (see Nova Oct. 2004). Ken Wilkinson was one of the secretive travellers, and here he gives some sage advice to anyone wanting to follow in his self-effacing footsteps.

After the successful Avon trip I have put together this guide to help anyone else planning to go to this excellent venue, described by Fiona McCaskill as 'probably the best site in the world' it certainly was the best I've flown to date. User comments varied from 'fantastic' at the bottom of the range to 'absolutley wild' at the top. (n.b. £1 = 80 rupees)

When The post monsoon in October or November gives the best flying. Weather is very consistent and we flew every day though conditions (and cloudbase) were variable. Weather was T-shirts for most of the day.

Documentation You need a multiple entry visa costing £30 from the Indian High Commission. Forms are downloadable. Can be done by post in a week or so. (You must use recorded delivery including a preaddressed recorded delivery return). You need a sponsor in India and an address. Contact me if you need info.

You need BHPA licence to get a local pass and 3 small photos. A pass costs Rs 360 per week, and they were checking last year. There was talk of a police check at the top but it never materialized.

You MUST have travel insurance that covers paragliding and evacuation.

Getting to Delhi and Bir We paid £520 on Virgin which is direct from London and booked 6 months ahead. Lufthansa apparently do the trip for around 400 quid via Germany. Look around but don't get one that goes via the Middle East. This is a tiring journey anyway. The area is Himachal Pradesh, and key towns are the ones mentioned and Kangra, which has an airport. Very difficult to get tickets apparently.

We got a taxi pre-booked from Bir (I know several people who can arrange this), but it was a 12 hour journey of 550km and Indian roads are poor. Driving is a nightmare. Cost was approx £25 each. Best is probably overnight train to Pathankot first class sleeper, then a 4 to 5 hour taxi ride which can be broken in the touristy Dharumsalah. Don't even think of second class. It looks like a scene from hell. Cost approx £30 though this price could be difficult to get outside of India. You MUST have a reservation. Check websites and look around, or ask Stafford Evans. There are tourist buses available to Chandrakot and other towns in the area but I don't know how to contact them.

Virgin allow 20kg plus 6kg hand carry, which is tight. With a nod and a wink they will allow up to 23/25kg. You don't need many clothes as they can be washed easily. Excess baggage is 25 quid/kg!

Phones work here if they are generic types, or you have an access code to allow any SIM card to work. Airtel intro packs with SIM card cost Rs 99 and can be topped up with Rs 300 or 500. Very cheap to call back to the UK. Phone coverage is good but take off is out of range.

Money matters Cards work in ATMs in Baijnath (15km away) and Palampur (33km away by road). Cash can be changed locally at a slightly poorer rate. (Friends Café or any of the Internet cafes will help. They all want their cut! Otherwise change at the airport and keep the receipt. We had a house, servant, cook and 3 taxis at our beck and call, our own rooms en suite, all food and booze and washing, and we spent about £12 a day (!!)) If you stay in the Emaho Café or other paraglider hostels and eat in town you could live for less than a fiver a day.

The site The take off, Billing, is 1000m above Bir on the edge of the Dhauladur mountains. Bir is at 1400m ASL. The main flying involves jumping ridges on the lower slopes of the range, though people do go on adventure trips as high as 5000m. Some of these look very bold and a land out (should you survive it) could be several days walk out. None of us did this and conditions were only on for maybe 1 day. Main route is to Dharumsalah, 45/90km away but just to Palampur is a nice 23/46km trip, which will take 2 to 3 hours. There are different ways of doing this. You can fly on the front lower faces and these provide excellent strong lift away from the mountains. Even the valleys work and we did think of a flatland task where you were only allowed to use the broad valley for lift. There really are thermals everywhere, following the classic 'dripping honey' pattern.

There is also a good 27/54km run to the SE but the landing out options after 12km are more difficult as the valley narrows.

This site offers alpine style flying at its best, sometimes over quite remote countryside.

Be sure to have 2 or 3 fleeces and extra gloves if it's a high day.

Tourism and other activities Bir is a Tibetan colony and small town and there are monks everywhere. There are several very impressive temples nearby, including the 'Temple in the Woods'. This is also a place where Europeans come to do multi-day treks into remote hill villages. We flew over some of these beautiful places. Shopping for gifts is excellent and very cheap.

The landing This is near the town and is mostly OK but has trees, loads of people and is stepped. There were many injuries here and we started to use the competition landing field on the other side of town. Much safer but 10 mins walk instead of 5 to the cafes!

Dangers Although the valleys are teeming with people this is not a place to get hurt. Take offs are often forward launch, and minor injuries sometimes resulted from 'blown' launches, but they are not usually too bad. The top take off is better. Landings are fast often with little wind. Medical facilities are poor locally and you must have insurance that includes medevac. Dr Mike is going to try to help to improve services there. There is a backboard stretcher and some drugs are available, and everyone chipped in to help when there was a problem.

Power cables are everywhere and not marked like in Europe. You really need to keep your eyes peeled when landing out.

Lift can be strong and you can get into trouble if there is an ambient wind in the lee side. Expect climbs of up to 8m/sec.

Storms occurred on our trip but they didn't seem to affect the immediate Bir area. We could fly excellent thermals out the front on a stormy day, and strong valley winds didn't occur there though they do elsewhere apparently. Ask a local however! These are big mountains.

There is no system for rescue from remote trees. Comps arrange a helicopter. Fly cautiously!

I suggest that you have a minimum of CP plus 40 hours and some Alpine experience. You would benefit from someone who knows the area or has extensive alpine experience. There are always people to ask on launch.

GPS is very useful to tell forward speed, to see if you have a head/tail wind.

Griffon vultures are common and although it's great to fly with a 5ft wingspan bird, they sometimes land on your wing and collapse it! Eagles will aggressively attack your wing, and they can be scared off by singing loud, and shaking your wing about.

Health We took a 15 quid Paladrine/Chloroquine course for malaria (see your doctor or nurse), and you may encounter mossies somewhere, but there aren't many in Bir. Take Deet insect repellent. Some took rabies jabs for £90 but we had no doggie problems. Ask your doc and they can give all recommended boosters in a couple of jabs. Imodium may be needed, but we didn't have many problems, although I have to give a 'sample' today!

Taxis. Take off is a half hour taxi ride for three (400 rupees) in little white taxi vans. You can ask any driver to meet you and they will, and make a regular arrangement should you wish. We hired taxis at 800 rupees a day and they would be available from 10 till 7 at night to run you around locally. Rs 6 per kilometre after that though cheaper can be negotiated. Ask them to go slower if they scare you!

Buses Local buses are very cheap and a bit of an adventure. Ask Graham Richards.

Who goes? There were a total of around 30 Brits, a load of Russians, Swiss and French. Many go year after year. 60 pilots in all, all smugly escaping the crap autumn.

Websites

<http://www.webindia123.com/tourism/advent/gliding/billing.htm>

http://www.paraglidingindia.org/jasons_guide.html

<http://himachaltourism.nic.in/kang.htm>

http://www.world66.com/asia/southasia/india/himachalpradesh/bir_billing

<http://www.bigskyparagliding.com/india.html>

<http://www.airworks.co.uk/trips.htm>

<http://dtc.nic.in/dt4.htm>

<http://www.himachalpradesh.us/webs/adventures/paragliding.htm>

<http://www.paraglidingindia.net/him.htm>

<http://himachaltourism.nic.in/para2003/intro.htm>

<http://www.trainenquiry.com/TrainsBetwImpStation.aspx>

<http://www.nirvanaadventures.com/home/home.html>



**Welcoming committee on landing
Photo: Mike Humphries**

Mayrhofen - it's really quite good, you know!

Pete Douglas has been flying for 9 years, and has 300 hours airtime. He flies an Airwave Mustang DHV2 (his 6th wing) and a Windtech Syncro DHV2/3. He has flown in the Nationals for the last 3 years, and is trying to get in the top 100 of the national XC league (but failed in 2005 because he found he couldn't change nappies in flight).

He has flown in Brazil , South Africa, Spain (Piedrahita, Ager, Castejon), France (Laragne, St Andre, Chamonix), Turkey (SIV in OluDeniz), and in Austria where Mayrhofen, the subject of this article, is his favourite site.

In his spare time Pete sells Apple Macs.

Probably most people consider me an old fart. Maybe it's true - the hair is getting beyond grey, the waistline a battleground for the pounds and I don't seem to want to stay up drinking past 2 anymore. But at 58, last year was the best year of my life. 660km flown; highest, furthest, longest flights and to top it all I'm a dad again. Young Theo, born last November to Frances and I, is growing through his first year with all the discovery that that entails - magic!

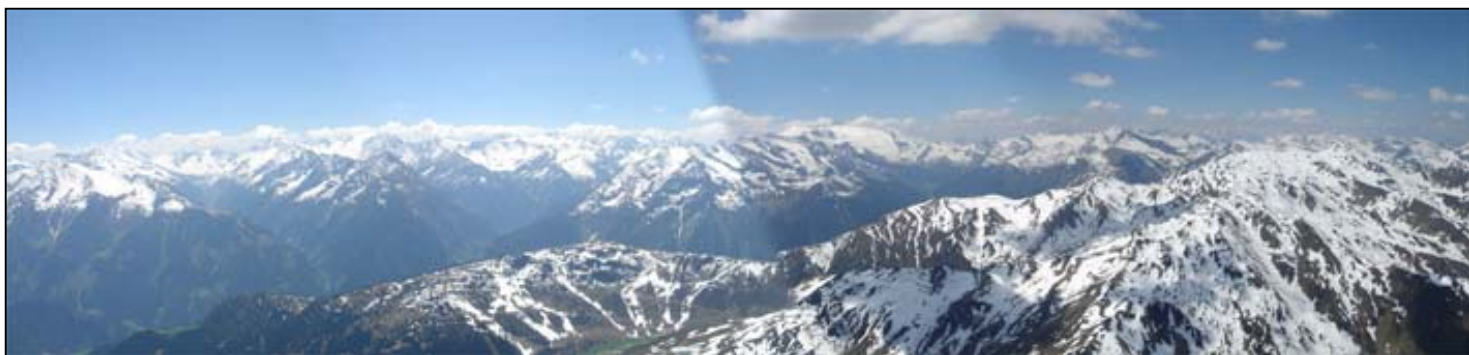
was a little red 'Zug' a two-carriage train - sometimes with a steam locomotive.

I had arrived three days before the Open Championships comp was to start, to give myself time to acclimatise and get to know the place. I checked into my hotel by the river and decided to get an afternoon flight in. There was a flying school bus going up within the hour and soon the windy road was taking us up out through forest into a patchwork of little alpine meadows clinging to the higher slopes. Being heavily glaciated valleys the first part of the climb is the steepest, and the little meadows are where you just start coming out on top.

Round a few more bends on the Zillertal mountain highway, the Melchboden take off has a restaurant with great food, and even batteries!

The take-off area just below the road is wide and easily big enough for about 30 gliders to lay out. The first day we just had a gentle evening cruise down as the sun had gone round covering the other side of the valley, and on the way in I visited the cliffs near the town. The next day we thought we would set ourselves a route similar to the one Kelly Farina had set the guys on his training course the previous day, and I managed about half of it before going down in an unfamiliar area near the Kaltenbach ski area when I could find no lift.

The next day, 27th May was the one. With no more than a vague Zillertal circuit in mind we set off at 12.10 from Melchboden, climbed easily to 3000m, and flew south



Mayrhofen is the place where my flying experiences opened up last year. Only a few weeks before, I'd bought a new Airwave Mustang and discovered that I needed to get new lighter kit and get my weight down from 106kg all up to 90kg and had managed it! The new slimmed down version was a lot easier to carry and launch and felt like the right thing for an old codger.

The day I arrived in the Zillertal the sun was blazing. Having expected Alpine freshness and cool mountain breezes, what we had here was a heatwave. The fresh grassy meadows butted up against the little town's back doors and the smell of fresh-mown hay was everywhere. Cow bells jangled, and church bells, not much traffic to speak of and the main transport up and down the valley

across the gap to the Penken ski area, arriving low. The photo shows the Penken ridge coming up with a view towards Italy in the distance marked by the high snow covered peaks, the Tuxertal Glacier to the right, and to the left of the picture the Ahornspitz with Mayrhofen nestling in the valley below bottom left.

Climbing back out from Penken ski area was not easy, scratching for an hour I had not realised how far out into the valley the true lift was. Eventually I got up to 3100m and it was only 1.30 - still time to get round the circuit. As usual I was on my own by now - only a true codger could miss those mighty thermals. I decided to head north along the top of the Zillertal Ridge (west side) - there was an intermittent cloud line marking the way, very little

meteo wind, just the peculiar valley flow seems to travel the opposite way to the rivers. It was not too difficult – once I got used to the idea of losing most of my height each valley crossing. The ridge peaks were about 2000m and the valleys about 4-6km across.

It made more sense to follow the Spine Back north towards the Speiljoch - the mountain at the east side of the mouth of the Zillertal Valley. Steady progress at 50kph. A last valley crossing to the Speiljoch is unavoidable and I arrived 200m below its peak and was very unsure as to how the valley winds would be working around it.

In fact as I came round onto the sunny face it worked fine though, the confluence with the Inn valley flow meant I must be flying in the lee. It was a little bumpy briefly at one point but the wing was rock solid throughout – in fact during the whole 10 days.

Back up to 3200m again - my minimum height before planning the next move. Moving into and against the Inn valley wind flow means a quite a lot of height loss – so the best thing seems to be to accept it and fly lower anyway along the spine ridge that points across the Zillertal, and cross the valley towards the south east, so taking advantage of the valley flow. I set off at 2700m but did not realise quite how far it was and arrived two thirds of the way down the eastern side of the Zillertal a kilometre to the right and below the Hartspitz. It was still scratchable and was nicely into sun and away from the valley mouth the slopes were protected and working well. At first I was facing into wind scratching but realised eventually that I could fly downwind and still climb well, steadily coming up the slopes of the valley sides and out onto the top of the ski area by Gerloss Peaks. The climbs here were 8m/s and gnarly at times as the Pinzgau and the Zillertal valley flows are in confluence here, but the sun was on the rocks below and that seemed to have the driving force through it all. I set off at 3400m (11,000ft) south towards the 2350m Hochfeld Ridge.

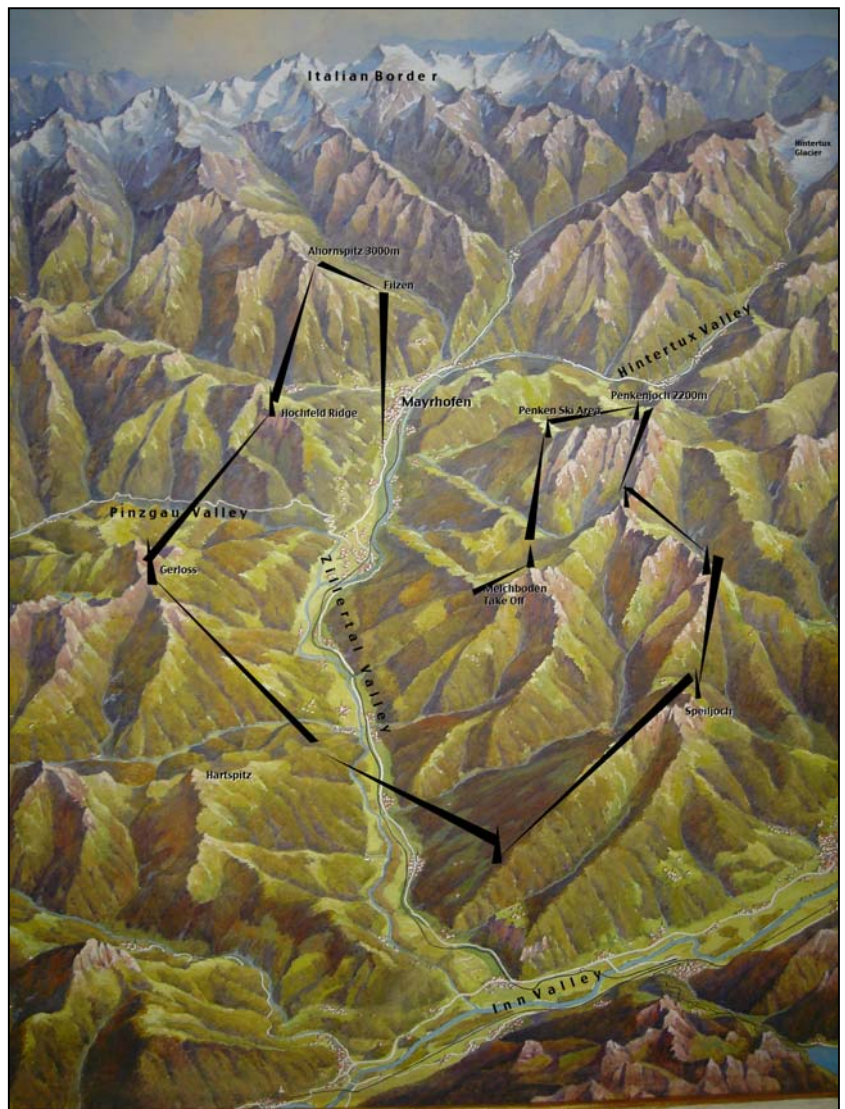
By 3.30pm the air was calmer now and it was not too difficult to get the little camera out and take quick series of 5 shots for a Panorama of the most ALP I have ever seen in my life. Some strange combination of the clarity of the air, the brightness of the light, the weather and the snowy/rocky terrain made it utterly alperly.

But still the Pinzgau valley mouth crossing left me only just 500m above the ridge I had just photographed, but as soon as I got over it a boomer hoisted me back up to 3300m. Ahead at the top of the Zillertal Valley towering over it lay the the Ahornspitz which at 2973m is the dominant peak around Mayrhofen. It was an easy glide away and I made my way over, arriving just level with its peak.

Below on a flat crest coming away to the right of the peak was an area with a bar and restaurant called Filzen where you could land. I sailed down over it but could not see too many people there so thought I might leave that for another day and headed on back to the main landing area at Bruggerstubbe – a few kilometres to the north of Mayrhofen. After 5 hours in the air and 79.78km I was ready for a drink and a bite to eat.

Almost a flat triangle of 26.83 x 26.91 x 17.18km and less than a third was in ridge lift but here it seemed all the flights could be like this. This was my longest flight to date, my furthest (nearly double my previous PB), and almost my highest – but the skies were improving and my highest flights were beaten each day for the next few days reaching the highest at 3845m (12,600ft).

I am grateful to Kelly Farina for hosting the comp, and the excellent task setting of the comp committee, Calvo, the stewards and everyone involved. But my first real flight in the high Alps was all my own before the comp had started.



Sometimes simple things can make the difference between a good day's flying and a day that leaves you frustrated and annoyed. Here readers give their paragliding and hang gliding tips to ensure that every flying day is a refreshing experience. But consult a club coach or your instructor if you're in any doubt that you can apply the advice safely.

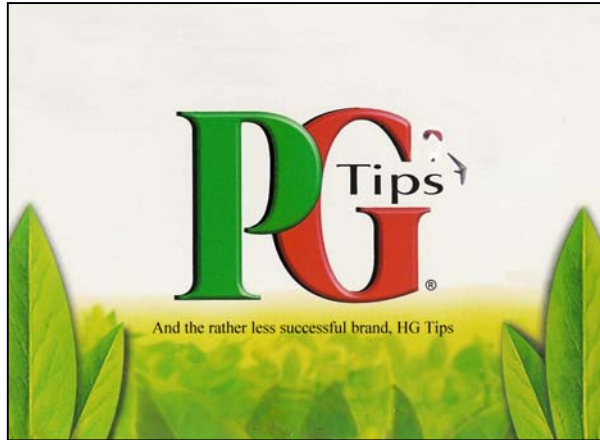
- If it looks like there is any chance of going XC it is a good idea to try to go to the loo before launching or you may regret it several km down the line.

Alastair Florence

- PG speed bars are usually held up out of the way with a piece of Velcro attached to the harness under your knees. But if you dislodge it while on the ground and clipped in, it's difficult to reattach it to the Velcro. Instead, I slide a small toggle over each of the speed-bar lines, so that the toggles bear on the pulleys. They have enough friction to hold the speed bar up, but they slide along the lines easily when you push on the bar. If you accidentally pull the speed bar down when you're on the ground, or you land having used it in flight, you can easily slide the toggles back into place without having to stick your head between your legs. You can get the toggles from camping shops. This is also a favourite of **Richard Beckett**, who says that you can buy the toggles from Robin. **Staff** says you can use the toggles off the net bag from your washing powder tablets (but be sure to buy the low-phosphate ones).

Richard Danbury

- Carry 2 or 3 packets of Dextrose for instant energy when concentration starts to lag. Also a couple of Muesli bars and a 1/2 litre of water to sip. (Too much



and you will want to pee!! unless you can pee whilst flying.)

- Check map before flyng (you can refold in flight but it's difficult.)
- Cut the edge and sea off the 1/500,000 map to reduce size.
- Carry a black marker pen and several sheets of A4 in a plastic wallet so you can write out destinations for hitching back.
- Carry spare GPS batteries in your flying suit in case they go flat in flight. (This cost me dearly last year.)
- If using rechargeable batteries for GPS, upgrade to the 2500mAh or 2800 types as they really last longer and only cost a bit over a tenner for four.
- Make sure to remind Al Davies (and yourself) [who, me? Ed.] to carry a radio. Invaluable on an XC for thermal sniffing.
All the above from **Ken Wilkinson**
- Always use fresh air, and wait until the day is boiling hot. **Timothy Pott**
- Anything that takes your mind off flying should be avoided...cold hands do it for me...Maplin sell heated gloves for £20...x3 AA batteries...bloody marvellous...
Robin Brown
- I use those chemical hand warmers. Each pair costs about £1.50, lasts for 6 or 8 hours, and each teabag-sized pad sits on the top of your hand and disperses enough heat to overcome the intense winter cold (especially the good days when we can climb 2 or 3000ft and its x5 worse). I had to get something last February after being unable to unclip for 10 minutes after landing. **Neville Almond**

Classified(s)

Hg reserve parachute, Firebird RS3 approx 4 years old, never been used! £200.

Airwave race 2 HG harness. Scruffy but serviceable, £50.

Contact Tony Moore 01985 214579

Safety

Tufty says, "Fly safely, or you might squash your ice cream."



Spring in the air

The hot news is that spring is approaching. If this is your first season as a shiny new pilot, or if you're just a rusty old one, watch out for those spring conditions. That cold spring air and warm sunshine can give rise to some punchy thermals!

Repack that reserve!

It's time to make sure that your reserve has been aired, checked for damage, and repacked. Several companies offer a repacking service, including Airtopia, or you can do it yourself under supervision at an event such as the Thames Valley Club's Big Fat Repack.

Don't forget that a brand new reserve also needs to be repacked before you install it in your harness. Brand new reserves may be tightly packed and may not deploy properly; they have been involved in a significant number of faulty deployments.

Collision Avoidance

Reprinted from the BHPA Instructor and Coach Newsletter.

There seems to be an increasing trend where pilots are considering that the collision avoidance rules are in place to facilitate flying in crowded conditions. Nothing could be further from the truth. If a pilot is flying safely, using good lookout and in sensible conditions then the use of avoidance rules should be almost non-existent. Being able to anticipate potential conflict will mean that flight adjustments can be made long before avoidance rules need to be employed.

If you do have to use avoidance rules then you should consider that a potentially fatal mistake in your airmanship has occurred. If you regularly resort to avoidance rules then you should seriously reconsider your philosophy. Bear in mind that two paragliders on a head on course and 100m apart have only 4.5 seconds before they collide.

How to milk the milk run

The Dave Yeandle Memorial Trophy competition takes place over the long Easter weekend every year. The trophy is awarded to the pilot who does the longest flight during the weekend. Last year it was won by Ken Wilkinson.

The Easter Cup last year provided a nice start to the year, and there was flying available on three days. With a north-easterly wind and a highly unstable sky on the Saturday it was obvious there was lift to be had. The obvious way to get a score was to base a flight on the Pandy ridge run and extend it, making an XC with one turn point. It was an easy run up to behind the Cats Back in pure ridge lift, but there was obvious potential to cross this if you got lucky with timing. Morgan Nicholas in fact pulled forward here and went into cloud coming out on the other side of the gap, and he nearly won the day.

That wasn't on when I got there so I marked the turn-point and headed back. On the return there were some areas of lift that were strong and well formed in front of the hill, and I was able to get some really good height for the return to take off. I arrived with around 2000ft ATO. There seemed to be some activity in the valley on the way to the Skirrid, so I headed for the best looking clouds, and was rewarded with steady lift to base, under a completely covered sky. I milked this for as much as I could and drifted down the valley towards Abergavenney. I'm always aware you need to stretch everything in a competitive situation and this was the case today as by landing at the far extreme of Castle Meadows I scored 30.3km, with one turn point, a few hundred metres more than Morgan!

The next day saw it marginally soarable at Talybont and the day after Al Davies did an 11km. That was the end of the comp!

Sea Breezes and Sea Breeze Convergence

Neville Almond started flying in 1979 (at the age of three) and has over 3000 hours on hang gliders, 80 hours on sailplanes and about 90 seconds on a Paraglider. He flew many comps back in the eighties, both the national league and internationals. Last April in Florida he placed 4th in the Class 5 pre-worlds where he hopes to return this coming May for the real thing. He holds a few local site records (Westbury 110 miles, Frocester 146 miles), and the UK triangle record (82 miles). And he didn't manage those flights without knowing about sea breezes.

First, it is worth differentiating sea breezes and sea breeze convergence:

Sea breeze – When land warms it may give rise to an on-shore wind known as a sea breeze. The on-shore wind will be pretty much around 90 degrees to the adjoining coastline. Predicting them is very difficult and an inexact science, but factors such as high temperature and instability increase their likelihood.

Sea breeze convergence – If the general meteo wind meets the sea breeze at anything between 180 degrees (head-on) and 90 degrees (side-on) you are very likely to get sea-breeze convergence. A sea breeze may still often be present when directionally aligned with the meteo wind, but now you don't get convergence - just dull air and usually an increase in wind speed as the two sources of air blend.

The type of convergence typically encountered in the UK is sea breeze convergence, which often has an adverse affect on soaring (although in some circumstances can be favourable). Note that this is different from non-sea breeze convergence (usually two inland air masses meeting, as typically experienced in central Spain), which is very often extremely favourable for soaring.

Below is a simplistic cross section of a sea breeze front to help put the following discussion into context. A typical day's conditions could be summarised as follows:

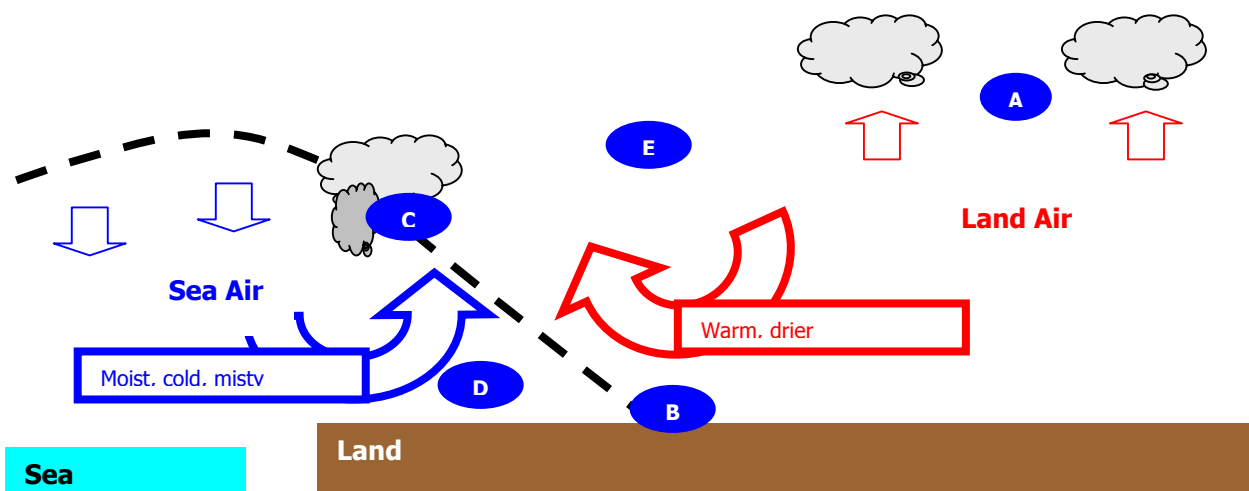
Point A – Normal XC soaring conditions.

Line from B to C – This represents the convergence line. Bouncy, disorganised lift will occur as the air masses collide. The depth of the convergence line may feel quite narrow, perhaps only (say) 30-100 metres wide. The convergence line is quite shallow though, and points B & C may be 4 to 8 miles apart.

Point C – If you want to soar convergence, this is the easiest source to spot, often typified by dark tundra cloud hanging down much lower than the cloud base inland. This is due to the moister sea air.

Point D – Bad luck: you're probably on a sled ride to the ground.

Point E – Devoid of cumulus due to suppressed thermal activity near ground.



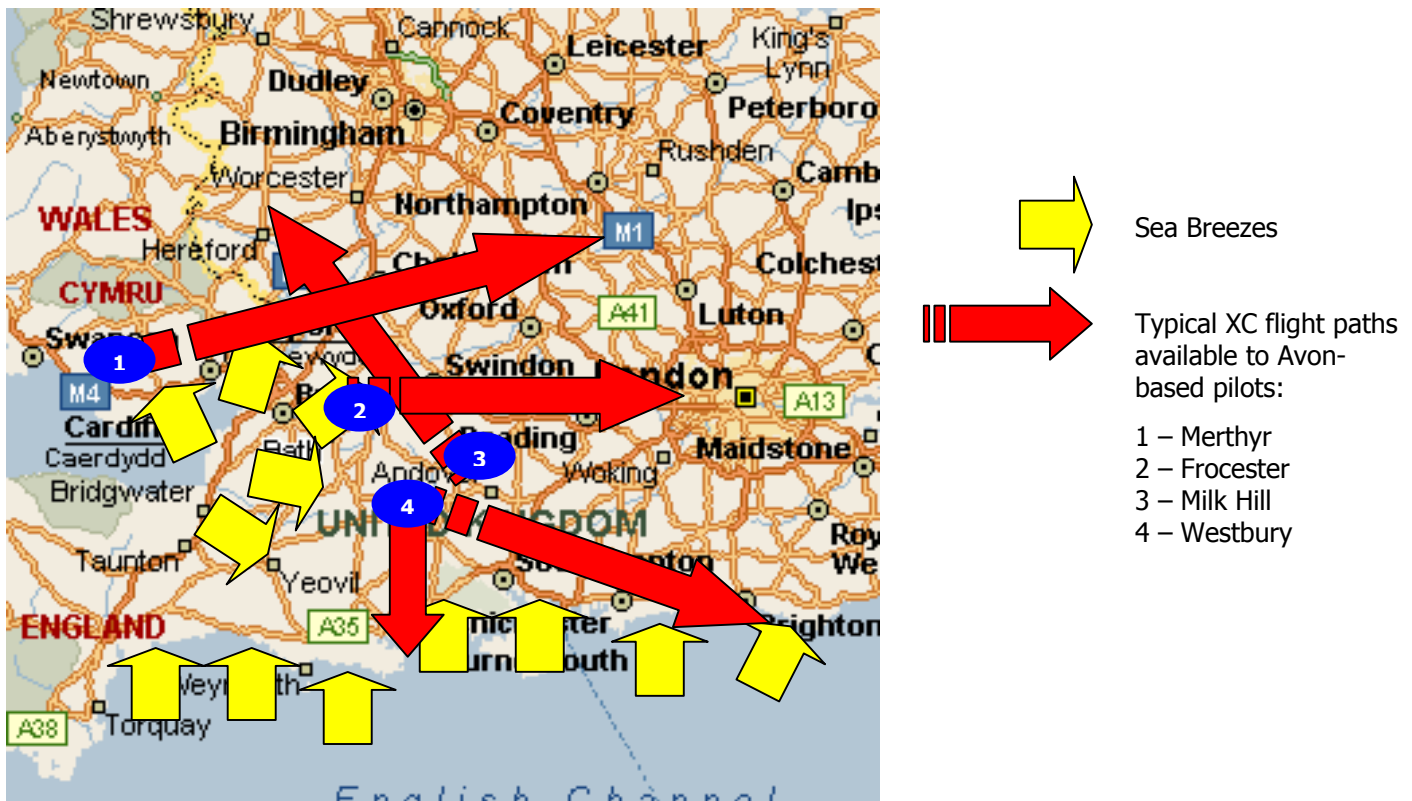
You may hit sea-breeze convergence and have some great, short-term experience of wild lift, perhaps leaving you hungry for more. Yet to achieve continuity and sustain cross-country flight in sea-breeze convergence is more difficult, usually due to a number of factors best summed up by a series of quotes extracted from the bible of cross-country flight, 'Cross Country Soaring' by Helmut Reichman:

...this wind has decisive and normally adverse affect
...sometimes only penetrating a few miles, but at other times extending as much as 30 to 60 miles inland
...the front is very difficult for the glider pilot to detect
...once engulfed in the murky maritime air, he will be lucky to slip out of the trap
...the supply of warm air to existing cu is cut off

On the positive side though, Reichman does also say:

...are very active and marked by long rows of larger-than-normal convergence cu, so that pilots can fly along them dolphin style

My UK experience has probably been around 15 to 20 excursions into convergence, but only 2 or 3 have given rise to a significant distance advantage. To help with some practical advice, I'll describe the likely effects of sea breezes on four sites: Merthyr, Frocester, Milk Hill and Westbury.



Merthyr

On good days as early as 12 o'clock (and assuming you have some height!) you may see the land around the surrounding coastline devoid of cloud, often indicating the sea air marching inland. Given that the sea breeze approaches as a ground-based 'wedge', the lower part of the wedge will actually be much further inland than the indication inferred by the boundary of coastline blue sky and first inland Cu's. There are two considerations here, the first of course is to get away before the sea air reaches Merthyr and kills the day. The second is that the sea air will also penetrate into your XC route, i.e. north from the channel between Cardiff and the Severn Bridge, meaning that you are either forced into convergence (usually with a much lower cloud base) or you have to take a more NE track to avoid the sea air. The strength of the sea breeze often declines by the Gloucester area and I've found the somewhat mild convergence around here can sometimes assist crossing an otherwise wet/dead area. Following the track into north Wiltshire, cloud base will typically rise considerably (the air is now drier) and also the airspace isn't too complicated. This is a great route but a key consideration is to outrun the onset of the poorer sea air.

Frocester

Similar circumstances to Merthyr, except the sea air can very quickly turn a westerly into a SW and make Frocester un-flyable. It's quite important to have a little north (say WNW) in the wind to help resist the sea breeze reaching the hill, otherwise the change of direction can occur as early as 11 to 12 O'clock (due to the proximity of Frocester to the Channel). Even when Frocester is still soarable the effect of the additional moisture often has a radical effect on conditions – I've so often climbed away with a 3500ft base, only to find a 5500-6500ft base just 20 miles away. You may be getting the impression that I think sea air is BAD!

Milk Hill

Cross-country flights from this area are rare, but it helps with the overall explanation. With a southeast wind a NW track takes you towards Evesham/Worcester, often meeting up with a mild sea breeze from the Bristol Channel pushing in from the S/SSW. It's a weak affair, but a few times I've flown high in blue, bouncy air up aloft, in a seeming 'motorway of lift' as the sea air wedge cuts in below. Perhaps the weakness of the sea breeze I've encountered is due to the physically small size of the Bristol Channel and hence reduced influence in this area, but during these flights the relatively minor influence did seem to enhance soaring.

Westbury

Westbury is a great spot for getting familiar with sea breezes. The most useful learning experience is perhaps to watch how the day can differ with different wind speeds and direction.

Considering direction first:

Lets take three scenarios of N, NW, and WNW and the same wind speed in each - lets say 12mph. In a northerly scenario, the sea air will seldom make it to Westbury, as the strong air mass well inland cannot be easily displaced. With the NW'ly scenario, it is easier for the sea air to attack, as the two air masses are only opposing by 45 degrees (not 90 degrees like in a northerly), so the sea air may arrive by mid/late afternoon. In a WNW though, there is little to resist the sea air, and the sea breeze can often arrive at or around lunchtime.

Now considering wind speed:

With a lightening wind speed the scenarios described previously all become similar as the wind tends to zero. Conversely, as the wind increases the wind can be such a predominant force that no sea breeze may actually materialise in a NW wind. This will be further evident if you fly XC from Westbury to the south coast, whereby with a wind of over 15mph you'll rarely encounter an opposing sea breeze, as the opposing wind is simply too powerful to overcome.

How do you spot the convergence? Convergence indicators at cloud base are clouds that are much denser, blacker and often lower than the inland clouds, with clear blue cloudless skies on the sea-air side. However, this may be 4 to 8 miles away from the 'ground-based' leading edge of the wedge, so look for ground indicators (usually smoke) for an indication of wind direction changes. Quite often flocks of seagulls will fly inland and play along the line, even quite low down, which is handy if you've nearly been caught out during a local excursion and are scrabbling back to the hill. Without fail though, the air can be downright turbulent and bouncy, so be prepared for a rough ride. I'd say that the most turbulent air I've experienced at Westbury has been convergence induced!

Conclusion

A recap on sea breezes and convergence:

- If you want to ensure XC continuity from most UK sites in the south, then considering the effect of sea air is paramount. Sea air can end your day quickly.
- Having said that, there's nothing wrong with sea air if your expectation is simply to ridge soar. Indeed, coastal flying in a sea breeze on an otherwise windless summer day may be your only option to get airborne.
- Remember that the convergence exists as a wedge – the convergence line at cloudbase is often easy to spot, but lower down it's tricky to spot – keep an eye on ground indicators (such as smoke) showing the giveaway changes in wind direction.
- Entering the sea air usually means the end of your flight.
- Some sea breezes can be powerful and isolated. Eighteen months ago I left Westbury in a 10mph NW air stream. Flying eastwards following the South Downs it appeared that the sea breeze was coming from the south at around 10mph. When I landed near Lewes it was a 30mph south-westerly!



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Photo: Mike
Rossdale

Caption competition

The caption competition returns! This is your chance to endear yourself to Rich Harding by explaining what's going on in this picture of him in the landing field at Bir.

Send your entries to editor@avonhgpg.co.uk. An entirely partial panel of judges (i.e. the committee) will select the best entrant, whose name will be permanently imprinted upon the pages (well, one of them) of the next issue of Nova, along with all the other (printable) entries.



Diary of Events

The club meetings will be as follows:

9th March - Details are to be confirmed, but hopefully we'll have Graham Phipps who runs Cornwall Hang Gliding & Paragliding Services. He will be telling us about his new tow training operation for both hang gliding and paragliding, and giving those biwingual-curious members something to whet their appetite by covering hang-gliding, from training through to competition level. Further details will be announced via Yahoo.

13th April - Quiz night. Details TBC

11th May - TBC

8th June - TBC

13th July - TBC

Club contact list

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