## Milking, Sniffing and Scratching

## ..... the art of staying up

There is a real skill and considerable fascination in flying a ridgeline or interconnected hills. Sometimes conditions make it easy (hence the derogatory term 'boring soaring'). However, as things become more marginal, pre- honed ridge skills become increasingly important if you're to stay aloft. Some pilots are more successful than others as the lift weakens, and are better able to recognise and exploit the lulls and down-cycles. As they say, "When the going gets tough ......" etc.

Mallerstang south section in winter garb (map to right)

Whilst we all dream of circling to cloudbase in lovely, well-formed thermals, the fact is we spend more hours working our way back and forth along a ridge. We also do a lot of para-waiting and willing the wind to just blow a little stronger or come a little more on. It's under these conditions that the confident, the knowledgeable and the skilled make use of what's available.

To try to illustrate ridge based skills I've chosen Mallerstang. It's not well known to many and perhaps I could have used Windbank, Whernside or any other long ridge like the Cross Fell range or a prominent Lakeland ridge. I simply chose Mallerstang for ease, due to its orientation, length and features. I also know it fairly well too.

Flying a ridge, even one you've flown many times before is never boring and always holds new lessons. This is because:

- There are no two ridges the same. They differ in shape, features, length, and height. The only constant is the direction they face.
- Conditions are never quite the same. Weather patterns bring about subtle changes in wind direction and strength, amount of sun, thermal or wave activity and often it's a combination of all of these.



- Conditions vary according to the time of year, right down even to the time of day. Easterly ridges are better earlier in the day; westerlies later and we all love southerlies. The answer is in the sun, especially in summer when it's a major driving force.
- Alongside all the previous factors we also have a cycling effect. In flying parlance you will often hear that the conditions have 'switched off' (better before you arrived) or hopefully just 'switched on' (lucky you). The only thing not to rely on is that it will stay the same. Patience is a virtue of the highest order in paragliding. Many times one can work a ridge (note the term *work*) for an hour or more until, with what I tend to think of as a giant 'burp' it releases its pent up lift and you're up and away.

Back to Mallerstang to illustrate a few of these points.

Mallerstang is 4k long (5k if you add in the difficult jump across from Tailbridge). It faces due west and is of uniform height but has a variety of features that make it interesting. There are steep grassy banks, shallow sections, steep crags, small gullies and into and out of wind sections. All these features create areas of good, poor or no lift and under some conditions turbulence. The ground out front slopes away fairly gently with small scree patches and sub-ridges ..... some parts are more sheltered and heat up better whilst other features act as triggers. As the day progresses the encroaching, cross valley shadow from Wild Boar can act as a late trigger along the whole ridge length.

Fundamentally, understanding this or any ridge is all about **visualisation**. From your aerial armchair you have to develop a mental picture of how the wind (direction and strength) and the sun (if any) are playing out their act on the features of the ridge. Working the ridge is essentially about looking for the best parts, milking what you can and moving between them if necessary to not only find the best ridge lift, but align with potential thermal streams.

The biggest factor is the wind in terms of its strength and direction in relation to the hill. In general the less wind, the less lift (there are a few exceptions to this) ..... so you need to work harder by flying more efficiently and by spotting the sweet spots on the hill. Should the direction start to swing off the hill (a forecast may have foretold this so you can be prepared) then the lift will become isolated and in parts it could become dangerously turbulent. If the ridge is fairly straight then beyond 30 degree it will probably stop providing lift and soon be at the point where it is being bent along the hill; on a more featured hill it could now be extremely rotory!

Again, with reference to Mallerstang. In a straight westerly it's a very straightforward ridge to fly, just north of west is OK and makes getting from Tailbridge easier. At the north end (usual take off) it's quite shallow in places, the wind gets bent around towards the end of the ridge and a push forward to bigger cliffs is needed. It can take several attempts or with height you cut the prow and bypass the crags. You learn to read the ridge against the conditions you have. The point is that the more you fly and apply visualisation, using every slope, bump and slight turn of angle then the better you will get and the higher you will be (a top of the stacker) – or at least avoid going down. A slight aside, but pilots who fly sea cliffs and especially coastal dunes a lot tend to be very good at reading wind and slope and knowing the slow speed characteristics of their gliders. One area where these skills can be applied is on xc's that fly through mountains or hilly areas. When the next thermal fails you, then a handy hill or ridge can be a saviour. In the Scottish Highlands a lot of xc



time can be spent at or below summit height so arriving at an unknown hill or ridge means you quickly have to assess the wind speed/direction for both safety and lift. An quick example. I recently (having left

Wether Fell at cloudbase) found myself heading towards the west-facing edge of Bishopdale and getting lower. I've never flown

Bishopdale, although it does still figure in the DHPC siteguide. In the time it took to approach the ridge line I tried to work out the best place to arrive; both in terms of the ridge itself and the clouds above it. It's always a percentages game. I chose the south end, it being steeper and bigger and slightly upwind of the north end – which left the north end as an option as opposed to a harder battle upwind later. About four beats after arriving I had a pretty good idea how well it was working and the sweet spots. I believe you can learn a lot of these skills by practising and getting the habit on your home ridge.

To summarise. No airtime should be wasted time or ever boring. Even the ridge you feel you know well still has things to teach you. When conditions become less reliable or scratchy hone your skills at reading the ridge and learning more about your wing and yourself as opposed to endless parawaiting for better conditions. When the hill is working well and you think you've become a good 'milker' of the lift (regularly top of the stack) then feel free to progress on to becoming a 'sniffer' (sorry, just the terminology I have in my mind - a weird place). These are the pilot's you see pushing well out front and on the flanks of the hill; who want to explore beyond the confines of the ridge and into deeper waters.

I'll finish with a few tips:

- Turning can be inefficient and lose you precious height Try to make your turns in lift,
- Keep turns as flat as possible. Know your glider's slow speed behaviour.
- Position yourself slightly forward of the ridge prior to turning and 'slide' back with any lift.
- In the slight surge of any lift bring your track into wind to maximise it or see what it may herald.
- Scan and watch other gliders/birds etc within range for both safety but also as indicators of conditions along the ridge
- When one end of a ridge is especially working well (thermal triggered), often the other end pays the price (reduced lift or sinky)
- Chasing after lift (thermal passing through ridge) often means you arrive too late and at the wrong time.
- 360 turns on the ridge in very weak lift generally gain you little other than to place you further back.