

Holding your own

I began this article over a year ago, but soon realised that something I thought fairly simple – wasn't. So I put it on the back burner. The more I looked into brake handles, their design and the way we use them, the more techniques I came across. Some involved retro fits designs, others the use of wraps or stiffeners, gloves featured, safety factors arose and some quite strident entrenched views were encountered. It was a bigger subject than I thought and it was all too easy to get a reaction as people defended their way or dismissed others. Having since talked to lots of pilots, observed what they do, asked them to demonstrate and generally thought about the pro's and con's of my own technique I'm going to give it a shot. There is one caveat – I'm advocating nothing, I'm simply suggesting you think about your own technique and making you aware of other methods and some of the issues. It seems on this particular subject people do things in quite different ways, but that doesn't mean it's right or wrong. As with most things it's what works best for you.

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Watch any craftsman at work and you can't help but be impressed by the fluent, almost casual way in which they handle their tools. With barely a conscious thought, each tool instinctively nestles in the hand for maximum comfort, ease of use and feel for the job. As a general rule, as expertise and confidence increases, then control and feel moves from hand to fingers as we progress to a higher level of finesse.

Receptors at different parts of our bodies are a result of evolutionary adaptations. An increase in the receptors of the fingers allows for a finer discrimination of objects and a better resolution and feel. Since our fingers and hands are essential for touching and feeling objects, there are more receptors, especially in the fingers and thus a larger sensorimotor area in the brain that corresponds to these receptors.

With the exception of the tongue, the finger tips carry (by far) the largest number of receptors of any part of the body. (ref BMA)

Translating this into a paragliding context means that control of our wing is primarily through feel; if we narrow that down still further then it focuses primarily on the way we connect to the wing via the brakes – and that comes down to our hands and fingers. Put another way – how we hold our brakes.

1) It is a risk to fly with an insecure hold on the brakes - you don't want to lose hold of one brake line asymmetrically during the take-off phase or if recovering a stall or spin

2) It is a risk to fly with an insensitive hold - which means you don't get the full information from the wing about what is going on

3) It is a risk to get your hands stuck and compromise a reserve deployment.

I was amazed how many different ways I can hold the handle - and most of them felt fine. Some felt more secure and some more sensitive (anon)

I've gathered together a series of illustration to show just some of the ways - there are others but these are probably the main ones. One observation is that the method taught during training is the best for that stage of learning to fly but may need refining or changing as you progress and fly gliders that provide more feedback and

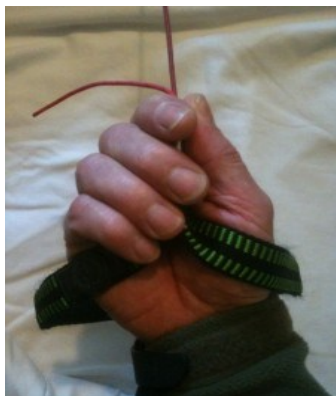
require greater pilot response. That said – I know many very experienced and talented pilots who still simply hold the lower or stiffened part of the brake in a full handed grab having tried it I feel horribly disconnected from the wing having no fingers in play. But if it works for you that's as good a way as any. Anyway – look at the pictures; consider any pro's/con's and see where your own method fits when asked some people really had to think about that. It was a good idea to carry a mock-up brake to help remind them.



The basic grip – quite common with post training pilots. A secure grip but which allows less feel of the wing. Very easy to release in an emergency but which also allows it to be easily 'lost', especially during take off when slipping a riser. Less common amongst experienced pilots but still effective when an index finger is run to the bottom of the line for that extra feel. It could be tiring for prolonged periods as the finger muscles, even locked are having to work to hold the position. Not so easy to take wraps – hands slightly lower position means some compensate by shortening brake lines.



The half through open hand position – a safer variation on the full hand through; the position of the thumb is the clue ... being outside the handle loop. The fact that the base of the brake line sits between index finger and thumb can give better feedback and be less tiring as the inner palm can be allowed to nestle in the bottom of the brake. More comfortable if the stiffener is removed. The hand can be easily slipped from the handle in an emergency. Can provide better handle security during take off as different fingers (plus thumb) are devoted to holding the brakes and the risers.



Full hand through position – more secure than the previous method but potentially difficult to release and free a hand. Provides good feedback and is relaxing as the weight of the arms are carried by the loop. Loops can be slipped down over the wrists during take off leaving full hands to do for example an A/C launch. Because of release difficulties then hand size/gloves need to be factored in. Easy to take wraps and provides for hands slightly higher and better positioned to provide 'pull' authority.



Outside with fingers position- allows for good feel and easy release but could be tiring on the fingers with prolonged use. A position that works well as an extension to the basic grip as it simply means a 90 degree rotation of the brake – the stiffener helps to lock the new position. The slightly higher hand position gives more pull authority.



Check out each of these methods – all by experienced pilots, and see if you can identify their chosen method for holding the brakes.

Note in each case the use of the tip of the index finger to feel the wing through the brake line.

Also consider that aside from ‘feeling’ the wing you also need to have sufficient purchase to apply a force.



Gloves need to be considered. Some techniques may work fine with thin, lightweight gloves but cause potential problems with heavier, thicker winter ones. Gloves can also impair the feel of the wing hence pilots occasionally ‘doctor’ the index finger tip (good for instrument use too). Gloves could also have a huge bearing on one’s ability to find and grasp a reserve handle. Reserve handles tend to be on the small side and flush to a harness side. A point to check in flight – feel and find as a practice exercise.



Whatever the climate even thin gloves are better than none. Lines, especially unsheathed, not only burn they cut! Try to find gloves that come well down the wrist for both wrist protection and to avoid a cold spot.

Brakes handles are a very simple design and one part of a glider that seems overlooked in terms of development. For that reason perhaps, some pilots have put their mind to designing modifications that work better for them. Acro pilot’s especially need a more positive, higher and direct connection.



One particular feature that came with my own glider is a padded, adjustable handle. It's so simple, yet it recognises the fact we have a range of hand sizes from the petite female to my agricultural mitts. It also means that in winter I can open the handle for my larger over-gloves. The padding also makes it really comfy and were a step change up from the harder Ozone ones (sorry).

Another area is wraps. Some seem to use them a lot, others rarely. On modern, higher rated wings with quite short brake travel they don't seem necessary during flying. The exceptions may be a fast nil wind or tight landing or to keep a wing down during pre take off (although more effective methods exist with the risers). If you do use wraps just make sure you know the reasons and safety implications.

I began by saying that this simple topic is less simple than it appears and is probably the one single thing that differs the most from pilot to pilot. It's also an easy way to get into an argument – like any craftsman who has his methods impuned, so pilot pride means it's quick way to feel offended. For that reason I've tried to keep it neutral.

Finally, in case anyone is wondering. Below is a photograph of my gloves after two years use – it provides some clues – two actually.



And I'll defend my technique to the hilt – just as you would yours 😊

OTHER COACHING NEWS

Club Coaches Day: For anyone who wishes to become a Club Coach or just wants to be a better pilot the CSC are hosting a regional CC weekend on the 25/26th January at Staveley, near Kendal. Existing coaches are also reminded that every five years they need to attend to stay current – that includes me so I intend to

be there. The tuition cost is £30 for the w/e, the CSC will pay for the venue. If you wish to attend could you please let Dave Ashcroft know. Dave can be contacted on 07752750869 or canddashcroft@hotmail.com

Related to the above, is that the DHPC Coaches list will be reappraised shortly after that date. Some have requested being removed, some are lapsed and some new one may emerge. I am aiming for a smaller group (if necessary) but of more active coaches.

Wether Fell coaching day 10/11/2013: We had quite a good turn out on a cold but sunny day. A short write up and pictures can be found at

<http://www.xcflight.com/flightlog/flights-november/>

Rating exams: Winter can be the ideal time to prepare for an exam. If you wish to take a rating exam then please contact me or any of the coaches that may be more convenient for you – we will get you the exam papers and give you guidance on the areas and sources for revision.

Photo Caption Comp (for a signed DHPC mug):



Two free comp tips

- Don't take the start gate early
- Know your cylinder sizes

Thankyou to Martin Baxter who came last, but also wins. Yes entries were so pathetic I have given up on paragliding caption competitions. Next month (taking a leaf from Cumbria's SFC) we will introduce smut in the form of my own pin-up, Kate Silverton. She will feature in a strip entitled, *Kate Goes Paragliding*'.

And I was a bit premature; Kate (our own) Rawlinson really does leave after this Skywords to seek fame, fortune and a dry field elsewhere. For me it has been fun bombarding her with innuendo ridden emails each month and getting helpful suggestions for counselling in return. Kate – thankyou for everything you've done to keep an old man happy (biscuits), your smile (to keep me sane) and that little back bikini for inspiring me to higher things. You'll be missed ☺

