

# Safety Bulletin 7

August 2016

Welcome to the latest Safety Bulletin which covers the period of June/July 2016. The purpose of the Bulletin is to provide the means by which all pilots can benefit from the experiences and perhaps misfortunes of others. Whilst the principal source of information is the Club forum other sources include the [incidents@cumbriasoaringclub.co.uk](mailto:incidents@cumbriasoaringclub.co.uk) line, various free flight publications and gossip, we know that not all incidents and accidents are reported but it is encouraging to observe the openness and integrity of so many pilots.

Most of the content in this bulletin has already been aired on the forum. (hyperlinks provided) No apologies for that; one of the points of the bulletin is to overcome that characteristic of online forums whereby important matters slides inexorably downwards, off the visible screen and out of memory. The Safety Bulletins have an archive function.

Inclusion in this Bulletin does not signify closure. Any conclusions drawn or lessons learnt are emphatically not definitive or final. Members may well disagree, perhaps vehemently, with the contents especially when it involves the opinion of this CSO. My request is for you to give me a hard time in person, on the forum or by email, just don't grumble to your mates in the pub.

## Tailbridge 12 July 2016

<http://www.cumbriasoaringclub.co.uk/forum/viewtopic.php?f=20&t=3985>

On 12 Jul 2016 Duncan Brough had the misfortune to suffer injuries as a result of an accident at Tailbridge. The initial information was spotted by ever alert face book watcher, Rick Livingstone. Duncan was taken to the James Cook University Hospital in Middleborough. In spite of alarming initial reports of fractured vertebrae and coccyx, to the relief of all he was released after a few days to recover at home where he seems to be filling in time by writing a memoir. Relevant tracts are shared here as lessons to be gleaned from his experience.

### **Duncan Brough.**

*"This is a brief summary to get the discussion going. WHY did I choose Tailbridge on 12/07/16? There's very little walking up, I was time restrained and Tailbridge is a very safe site (or so I thought)! The forecast for Tailbridge was ok.*

*PRE FLIGHT CHECKS, I checked 3 weather forecasts and did a thorough on site weather assessment before my first launch. I was happy that Tailbridge was flyable. My daily checks were done and no mistakes made. (Apart from not assessing the weather/sky prior to my third launch)?*

*IN FLIGHT, I was happy while in the air, during ALL 3 of my flights it was reasonably smooth right up until about 2 to 3 seconds before I crashed!*

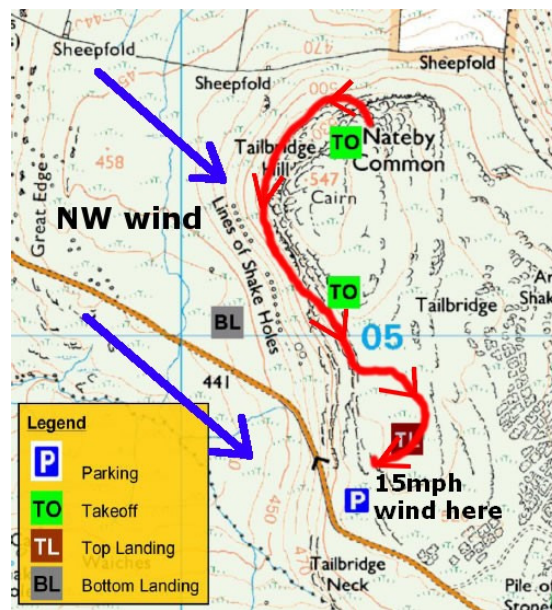
*LESSONS LEARNED-*

NEVER ever fly on your own.

ALWAYS check your kit thoroughly before flying (one of my radio batteries was flat).

If there is no one else at the site you have chosen ask yourself WHY?

Check the weather and sky and do a FLIGHT PLAN (to include your landing site) prior to EACH and EVERY flight no matter how long or short it is going to be. I know this is NOT always possible (XC) etc. Jo took photos of my third flight just before I crashed and there are some angry clouds!! Should I have launched at all for this third flight? I hadn't assessed the sky prior to my final launch because my plan was only to be in the air for a minute or so flying back to my car! Now then in MY OPINION in relation to Tailbridge – IF the wind is off to the N or NW be very careful with your choice of landing site. I hit Rotor, Sink or Wave on my final descent, I DON'T EVER want to experience this again”.



Key

Blue arrows – wind direction, probably in excess of 15mph.

Red line - line and direction of third flight ending in accident.

Several comments were posted in response to the accident. Some were specific to the accident, some dealt more generally with site issues at Tailbridge and some looked at more general points about flying in strong winds.

**Ali Guthrie** - “[...] given the direction of N or NW and a wind speed of 15 mph, I feel that your selected landing place was not ideal. If wind speeds had been lesser you probably would not have had an accident. The simple lesson here being, as wind speeds increase so does the risk of ground associated rotor”.

**Ed Cleasby** – “[Tailbridge is] generally regarded as a very safe site with a clean open aspect and large top and bottom landing areas. As a consequence, a lot of lower airtime pilots cut their teeth here and build airtime, it's used for training (by Sunsoar).

*The site guide shows a NW take off. In reality the NW face is a long walk and too short to be of any real value. It's rare for the wind to go NW due to the Solway SB making it's way that far down the Eden valley - far more often the Morecambe Bay SB will dominate and the wind should stay W or even SW. My suggestion would be to REMOVE the reference to a NW face and take off altogether it's too low value except maybe for early training on the lower slopes.*

*The guide mentions the possible rotor risk near the parking/road. There have been a number of incidents/accidents here over the years. It can be OK BUT in any wind and especially with any west in it there is rotor generated by a small outcrop above the road. The guide recommends you take off further along where the slope is better and the outcrops are not present. Landings by the cars are USUALLY fine EXCEPT if it's windy then best to land further away (rather than further back) ..... or better at the bottom of the hill by the road. It's no big hassle.*

*Wave is very rare here, (Mallerstang is different) convergence can occasionally be found and sometime quite rough thermals for which there are various theories, one being as the SB comes in it gets more rowdy (broken, dis-organised thermals).”*

There was some discussion over possible alterations to the Site Guide which no doubt will be considered by The Dales club. The full discussion is on the forum but the essence is:

Ed suggests that all reference to the NW face is removed. Duncan suggested that as pilots are likely to fly the NW face anyway a cautionary reference should be included in the site guide.

**Brian Doub** responded focusing on the aspect of wind strength.

*“When we talked on the phone I thought you told me that on your last flight you had to go on half bar to penetrate. Am I remembering correctly? [...] if you're using half bar I can guarantee that the wind speed was more than 15 mph. [There was some discussion, and disagreement, on the likelihood of wave] Whether it was wave or not doesn't really matter. You definitely hit sinking air/rotor and it seems very logical that it was due to strong wind coming over the crags there in front of the car park [...] it can build up and roll along the ridge in a NW.*



*Tailbridge slopes down from the upper TO to the car park. So it does make sense that any rolling turbulence that is set up further up the ridge is going to be significantly higher by the time it reaches the car park. This is all conjecture of course on my part."*

### **Summary.**

Tailbridge has a reputation as a safe site. Beware.

Whilst the discussion has focused on the conditions at Tailbridge on the day, the lessons are more generally applicable. Contributors have homed in on wave, rotor, turbulence which risks obscuring the simple issue that for a soaring flight the key is wind strength and direction. When wind speed doubles, the wind energy quadruples. The wind was strong on the day, (Duncan measured it as gusting up to 18mph) Also, as Brian has pointed out, Duncan reports being on half bar to penetrate. Brian's sketch of the likely turbulence caused by a strong NW wind travelling along and over the SW face is useful and applicable to any situation when the wind is blowing along a ridge.

Another possible warning sign of 'non-ideal' conditions which Duncan comments on was the lack of other pilots. Tailbridge is a popular site for all the reasons that Duncan identifies, easy access, top drivable, a reputation for being safe. It is necessary to be extra vigilant when you arrive at a popular site and find you have it all to yourself.

One positive lesson, not dealt with on the forum was the efficiency of the casualty evacuation. Both Duncan and Jo are experienced in this area, both being in the police. They made the right calls, used the right words and knew the Air Ambulance crew. Those of us not so well versed in such things will do well to carry our CSC emergency cards.

## Airprox Drones.

In April, Dave Armstrong and Chris Field were flying in marginal conditions on Barton fell when they experienced a confrontation with a drone operator.

<http://www.cumbriasoaringclub.co.uk/forum/viewtopic.php?f=20&t=3881>

*“Yesterday (24 Apr 16) Dave Armstrong and I were flying on Barton. Conditions had dropped off to barely soarable. We noticed a drone being flown on the north end of the ridge about 150m from where we were standing in our harnesses. Dave, having failed to maintain in the light conditions decided to head north along the ridge to a landing area. There was clear visibility and line of sight between us and the drone operator. Dave made the assumption, as did I, that the operator would land the drone when he saw the glider approach. In fact as Dave approached the drone was flown upwards into his path. Dave shouted down for him to get the drone out of the way to which he responded \*\*\*\* off, you get out of the way. Dave landed beyond the drone operator. The drone operator fled the scene.*

*Estimated separation at closest point, 20ft”.*

**The finding of the Airprox Board has been received. The narrative findings are:**

“Members quickly agreed that although the paraglider pilot and the drone operator were equally responsible for not recklessly or negligently causing or permitting an aircraft to endanger any person or property, it was for the drone operator, with his powered aircraft, to give way to the landing paraglider. The drone operator clearly had many more options to manoeuvre his powered drone clear of the paraglider and its pilot than did the landing paraglider pilot who would be constrained by the performance limitations of his unpowered canopy. Members commented that it was disappointing that the drone operator saw fit to challenge the paraglider pilot at a critical stage of flight, and they recalled previous similar Airprox encounters where a lack of courtesy and consideration had resulted in a situation which was needlessly less safe than it otherwise should have been. Furthermore, members wondered whether the drone operator was familiar with the CAA regulations at all, and determined that the cause of the Airprox was that the drone operator had flown into conflict with the paraglider. Acknowledging that the paraglider pilot had been able to manoeuvre to land beyond the drone operator, the Board were nonetheless unanimous in their agreement that the proximity had been such that the safety of the paraglider pilot had been much reduced below the norm”.

**The key issues that come out of this are:**

1. The various authorities (less perhaps the BHPA) responded quickly and helpfully to the initial report.
2. It is clear that the CAA take the drone risk seriously and fully appreciate PG vulnerability.
3. The reporting process is less arduous than anticipated.
4. The issues of Drone/PG conflict are going to increase.
5. A major part of the problem is a lack of understanding in the drone owning community of the issues involved.

6. Based on the evidence of this incident it would be sensible to give drones a far wider berth than was thought necessary at the time. If feasible, pilots should speak to the drone operator on the ground to de-conflict potential incidents.

7. To combat the increasing drone threat the CAA need to build up a true picture of the scale of the problem. Pilots should report all incidents involving drones as Airprox. I (as CSO) am happy to complete the paperwork if pilots prefer simply to report the incident to me.

## Boots for Paragliding



*Choice 1*



*Choice 2*



*choice 3*



*choice 4*

A pilot made the following report via 'incidents@cumbriasoaringclub.co.uk', wishing to remain anonymous. The issue of appropriate footwear for paragliding was aired on the forum. The lack of consensus is the most significant feature.

<http://www.cumbriasoaringclub.co.uk/forum/viewtopic.php?f=20&t=4010>

*“A few weeks ago I was flying on a non-registered site. It wasn't particularly soarable so I went into land in the usual spot in light and variable conditions. I was caught out by the sinkiness of the air and had to make a rapid turn with little height which put me close to the shallow slope and possibly slightly down wind. The ground was soft so I put my legs out ready for a PLF. With legs out, slightly bent at the knee I hammered into a concealed rock. I was catapulted about 15 ft, slightly stunned with a very stiff back. I spent a couple of weeks in a back brace but suffered no long term problems. The key point in my view is that I was wearing very robust trekking boots with a heavy duty vibram sole. I am sure that, given the forces applied, if I had been wearing flimsier footwear I could have seriously smashed up my feet”.*

This begs the simple question - what is the best footwear for paragliding? It turns out that there is not a correspondingly simple answer. Pilots can be seen in everything from the lightest trainers to the heaviest mountaineering boots. The arguments seem to hinge on the tradeoff between protection, comfort and 'foot dexterity'. The pod innovation has further complicated the issue in that some pods do not accommodate big boots and some pilots report that lack of feel hinders access to the pod.

So, putting aside the issues of comfort (waterproofness, weight, thermal properties, pod compatibility) and dexterity (the feel as the foot connects with the terrain) we can address specific point in the initial incident report which was the protection provided to the foot on a hard landing. The point was made that the robust vibram sole protected the feet from a potentially damaging impact. Searching PG Forum on the subject one pilot reports his injuries sustained from such an accident. (*“I now fly with Hanwags following ongoing problems from an accident where I ruptured ligaments, dislocated and cracked the joint of my little toe due to wearing sneakers two years ago. Surgery: metatarsal head resection in June of last year..”*)

There is a view circulating that boots with a higher ankle can transfer the injury site from the foot or ankle to the lower leg. I am sure research exists to validate this assertion but I couldn't find any specifically aimed at the sort of impact injury associated with a hard PG landing. **Rhett St John Harrison** argues enthusiastically for the lightweight option based on his considerable running/fell running experience. I would respectfully counter his enthusiasm by suggesting that the protection emanating from the strength, agility and fitness amassed from many years flinging himself down fells might be a greater factor than his chosen footwear.

Coincidentally, **Brian Doub** broke his ankle during the course of the forum discussion. We all wish him a rapid and full recovery and appreciate his contribution to the debate although he didn't have to go that far. His consideration is on the forum but in essence he remains unconvinced of the relative protective value of boots.

Some very experienced pilots in the club are firmly convinced of the value of boots over shoes. This might be based on a climbing/mountaineering background where the walk in and potential walk out assume greater importance than just the protection provided from a hard/rocky landing. Equally, some members remain wedded to lighter footwear.

It would be useful to have empirically based input to this discussion. If anyone has knowledge, experience or access to any such information it would certainly be appreciated. In the meantime, the

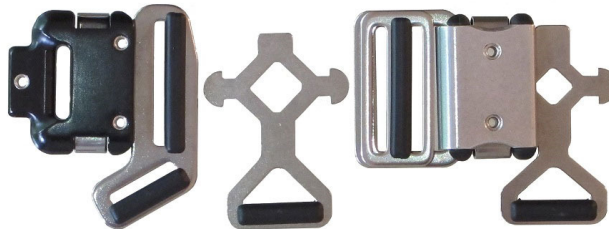
debate is probably not over so the current advice is wear what you want but avoid the red sling backs, they're so last year.

## Safety Notices

### Finsterwalder T -Lock or Click – Lock Buckle

Does your harness use a Finsterwalder T-Lock or Click – Lock buckle or any similar system? If so, it is recommended you check the article in Cross Country Magazine. The article contains links to the original warnings and DHV report.

<http://www.xcmag.com/2016/06/chest-buck...thousands/>



### Gingo 3 Harness Rescue Container – Update

‘Further to a previous safety notice of 09/03/2016, we have also issued a safety update consisting of a foam pad. All Gingo 3 owners must insert the foam pad inside the rescue container, as shown in the photos, before their next flight.’

<http://www.gingliders.com/home/safety-n...er-update/>

### General Awareness Request

If you are aware of a safety notice or have knowledge of a safety issue affecting any PG/HG equipment, please use either the Club forum or this bulletin to draw members’ attention to the problem. If the issue is considered urgent an ‘email all members’ can be issued.

## Pre-Flight Checks – again and again and again.

<http://www.cumbriasoaringclub.co.uk/forum/viewtopic.php?f=20&t=3996>

James Harrison posts:



*“At the excellent LCC, I took off at Alcock Tarn for a late afternoon flight. All was well until I felt I was penetrating slowly and would apply a bit of speedbar - I'd already checked the Brummel hooks as they have a tendency to come undone. I stepped on the bar and nothing happened! It turned out I had got the speedbar lines wrapped around my chest harness. As it happens there was no harm done but it is another reminder for me and anyone else interested to make sure they do their pre-flight checks systematically and thoroughly.”*

**Followed by Jackie:**

*“well that makes me feel guilty for not confessing to doing exactly the same thing at the coaching day on Clough in June.*

*Having seen all 12 of the group off and helped someone to sort their loose reserve pouch twice, I was keen to get off and in too much of a hurry.*

*I took off with one of my speed bar lines round my waist strap.*

*Try as I might I couldn't top land so I sorted it in the air.”*

**And then Ed Cleasby:**

*“OK ..... I'll admit to a speedbar one too.*

*Took off on a windy (which got windier on top landing) Wether Fell last Thursday to find ..... big loops of speedbar line on either side and no sign of the speedbar foot thingy. I knew it had somehow come detached, but couldn't see how when looking down into the dark bowels of the pod. Flew around for a while and then top landed ..... no problems other than it would have been reassuring to have had that extra bit of speed.*

*It turned out the maillon that attaches the speedbar first step to the footplate was completely open. I admit to not checking cos it's ALWAYS OK .....isn't it? Damn it ..... it's a screwed up maillon.”*

The Lessons – obvious really; careful, thorough pre-flight checks whilst avoiding pressure-to-launch are essential. Ed's situation is particularly interesting. How often do we actually check that all those component parts of our aircraft are serviceable and correctly assembled? Nope, me neither but I've just popped down to my garage and popped my head in my pod. Everything was reassuringly connected but I'll try and make it part of a regular routine. (I did find the wind meter that has been missing for some time)

## **DIY Glider Repairs**

**Richard Jennings reports:**

<http://www.cumbriasoaringclub.co.uk/forum/viewtopic.php?f=20&t=3966>

*"I recently had to replace two lines; a middle B & C on the same side after the outer sheathing became shredded.*

*The lines arrived, and I carefully replaced, inflated the wing and all seemed OK. My next flight was from Coniston and it was my worst flight ever. I got absolutely no lift, and did not even make it back to the cars. Soon afterwards Dave Robinson landed next to me, and among my general swearing we decided the conditions had changed and it had become all sinking air. I thought nothing more of it.*

*On Saturday, I took off on Clough and effectively the same thing happened, I just sunk out, and soon landed by the quarry. On landing I realised something was wrong and then our esteemed Chair who was coaching radioed to check I was OK, as she had seen distortion in my wing. I had checked the wing on launching, and had not seen it from underneath.*

*It then occurred to me to do what I had failed to do two weeks before, and check the lines against the matching pair on the other side and discovered while one was perfect the other was 6 inches short.*

*These school boy errors have cost me two wasted walks up, and thankfully nothing more, but the moral of the story is check, check and double check you have got whatever you are trying to do right."*

They do say that most DIY fixes end up by calling in the experts. Richard reports that his glider ended up winging its way to Aerofix but as he states, check, check and double check.

.... and that is it for another month. It's unflyable at this very moment which should allow me to send this bulletin out before any more reports hit the inbox ....

*Fly lots, fly safe!*

*CSO*