

Safety Bulletin No 2 – Onward and Upward

Introduction

It is a pleasure to report that since the last bulletin we have had no accidents or incidents. We are of course aware of at least three reportable incidents none of which have been notified. This is quite convenient as it provides an opportunity to revisit the aim of the club reporting system. Simply put, it is to ensure that all pilots have the opportunity to learn from the mishaps of the unfortunate few. The acid test determining whether an incident should be reported is, could this information prevent a future accident or at least mitigate the severity? It is also worth considering that whilst a particular incident or event may seem relatively minor, the accumulation of similar information could prove valuable. If in doubt about the significance, please contact me on incidents@cumbriasoaringclub.co.uk.

Much of this bulletin is taken up with a discussion based on Rick Livingstone's accident on Wolf Crag. I am concerned that the amount and depth of this discussion might be a bit off-putting given that several pilots have expressed reservations about exposing their flying mishaps in public. Be assured, the analysis of this incident is exceptional and has been driven by Rick who is determined that we (him and us) get the maximum benefit from his misfortune. The level of exposure is entirely in the hands of the pilot. One advantage for the pilot is that it provides an opportunity for his/her personal input which has to be an improvement over the current judgement-by-rumour machine.

Rick's accident raises issues in three areas. The first is the whole reporting/investigating system for such accidents and in particular the use of the club forum. The second key area is the anatomy of the accident, the how and why and what we can learn. The third issue is the whole area of accident management. This is discussed only in outline below but, given its scope and importance it will be the main focus of the next bulletin.

SOCIAL MEETING - NEWBY BRIDGE 8 JAN 2016

The Club social held in Newby Bridge on 8th Jan 2016 provided the forum to discuss the proposed club safety structure. The meeting was well attended by a full spectrum of pilots from expert to complete novice and lots in between (albeit mostly representing the Southern pilot community). This is a summary of the discussion.

There was considerable concern expressed by one or two people about privacy in the event of an accident. This supports the view that embarrassment is one of the main factors restraining the wider reporting of incidents. It was the view of at least one pilot that absolute privacy should be the default unless agreed by the pilot.

Absolute privacy would require no mention of any fact that could lead to unwanted identification: name, gender, wing, place, time. As an example, in the case of Jackie's Walla incident (described in Bulletin 1) we would be left with a report amounting to something like:

Pilot attempted forward launch in light wind. Launch area was flat leading to sharp edge and vertical drop. Wing failed to inflate, pilot failed to abort and dropped over the edge to land in trees. No injury.

Action recommended: Light wind launch techniques to be addressed in coaching programme.

The disadvantage in this instance is that the report fails in its key point, the particular risks associated with light/nil wind launches at Walla. Obviously it's up to the pilot but it will devalue the lessons if key information is discarded. This key information could be the place, the day/conditions, the equipment (glider or harness) or perhaps the experience of the pilot.

The point was reinforced that the privacy level would be agreed between the CSO and the pilot before any form of publication. Any incident report would be seen by the pilot before being published. This is not as bureaucratic as it sounds. In most cases it will involve a short conversation between the CSO and the pilot and then we (the safety panel) can take a look at it and decide what's the best way ahead. Another quick call/email and then publish as necessary. The key thing is that we ensure that the recommendations are actioned. So, in the Jackie incident the action is not complete until we see the site guide is amended and light wind launches are included in the coaching programme.

The gathering seemed pretty united in their hostility to the club forum and adamant that discussion on incidents should not take place on the forum. It's a pity but perhaps understandable. The proposal is that reports on incidents should be published in the monthly Safety Bulletins unless urgency requires an instant 'email to all members'.

There will be exceptions. If an individual wants to open his soul to the forum, to be known as 'doing a Rick'. ('Doing a Rick' describes a totally open discussion employing social media instigated and driven by the accident 'victim'. The phrase is in no way pejorative). The forum discussion following on from Ricks accident raised many useful lessons. However, given the general antipathy of the membership to this form of discussion given its propensity to deteriorate into a school playground slanging match the CSC policy for accident reporting and discussion will be:

An accident should be reported in the first instance to the Club Safety Officer incidents@cumbriasoaringclub.co.uk.

The CSO will start a thread on the forum. Heading "Paragliding accident 1 Jan 2016" It will include a brief statement along the lines: ' An accident occurred on Wolf Crag earlier today. The casualty has been flown to RVI Newcastle. Information will be published as soon as it is appropriate. It would be appreciated if anyone with important and relevant information could inform the CSO. In the meantime, pilots are requested to desist from public speculation.

Appropriate information will be posted as soon as it becomes available. For example, the name of the pilot would not be posted unless we know the family have been informed. No discussion will be posted with reference to the nature and causes of the event.

Subsequently, with the agreement and involvement of the pilot, the discussion may be opened up.

Interestingly, at the meeting a NHPC member reported that this club is considering encouraging incident reports from witnesses. Effectively if someone witnesses a potentially hazardous event they should report it. There was a mixed reception to this plan. Given the antipathy to any discussion on incidents perhaps formalizing 'dobbing thy neighbour' is a step too far for the moment. The NHPC initiative will be watched with interest.

There is a general concern, but not to be overstated, that we might become a bit too 'health and safety'. This will not be the case, personal safety is the responsibility of the pilot. To repeat the safety mantra: "The panel is there to discuss, consider, advise, investigate and drink beer. It is not there to judge, pontificate, patronize or act as high authority".

Accident Analysis

Background

The forecast for the day was for a northerly increasing in strength to fresh by the afternoon, bright sunny conditions. CF had texted several pilots proposing mini-wings on Wolf. In the event three pilots turned up with identical mini-wings (17m Ozone Zeros) but significantly differing all-up weights. Two other pilots flew conventional gliders; JJ with a Buzz and JM with a Rush 3.

The mini-wing proposal was based on: mini-wings are more fun on a soaring flight. Wolf, particularly the eastern (grassy end) is relatively benign in terms of turbulence and upwind obstruction. The profile of Wolf provides several safe options should conditions change (Slope and top landing as well as the ability to slide off towards the east to escape the lift band).

The Ozone zero, according to Ozone's website is designed to fill a gap between speed wings and conventional wings. The Zero is designed for a wide pilot weight range, the choice of glider size (15 or 17m) being determined by the skill/experience of the individual pilot and the type of flying contemplated; the smaller the glider/fatter the pilot the more dynamic the ride. Zeros include both conventional speed bars and trimmers. The former make them an attractive option for 'conventional' strong wind soaring and (according to the website) thermalling, the latter provides for better speed wing characteristics for carving down a slope. The shark nose technology ensures high internal pressure allowing high performance and improved stability particularly noticeable when applying deep brakes when soaring and approaching landing. The trade-off from the high internal pressure is that deflations will be highly dynamic and require rapid responses.

Initial conditions were light with light thermic cycles gradually increasing, as forecast, to make enjoyable soaring possible. It was noted that the two conventional gliders, whilst flying in top end conditions, did not experience penetration problems and neither pilot reported feeling threatened by the thermals. CF flew (three flights) lasting about 50 minutes until he found himself virtually gale-hanging so slid along the ridge to land comfortably out of the lift. RL was most noticeable by the faster and more dynamic nature of his flying, pushing well out in front of the ridge. He reports:

" I had just flown back to the hill for an altitude top up. As I'd been doing for maybe nearly an hour (in fact he flew for 33 min). But this time I had a hillside asymmetric at maybe 100ft and couldn't quite get it steered away from the hill and re-inflated before crashing with a lot of vertical and horizontal speed.

A comparison between the flights of CF (80 kg) and RL (92 Kg with ¼ trimmer)

CF

Launched (for final flight) 1329hrs, landed 1404hrs total 35 minutes

Max speed 56kph

Total distance 7.0Km

Average speed 12kph

RL

Time 33

Launched 1350hrs, landed 1423hrs total 33 minutes

Max speed 65kph

Distance 15 Km

Average speed 27kph

On the forum RL has identified the following contributory factors:

"Flying a mini wing inland on a thermic active air day.

Flying a mini wing inland on a strong wind day. Strong wind to me is over 15 mph, it was 18 to 20 that day.

Not having a trimmer position check as part of my pre-flight check list. Post-crash we discovered I had the trimmers on quarter fast, I had not realised this - a major pilot error.

Taken singly, if anyone of the above factors had been absent (i.e. not thermic or not strong wind or trimmers not set above slow), then the collapse might well have not happened or the recovery might not have been as dynamic as it was. If only one of these factors had been present then no problem..... but all three together and the cause becomes fairly obvious!"

To this can be added, had Rick stayed away from the ridge in the event of a collapse he would have had more chance of recovering normal flight or throwing his reserve.

The trimmer setting issue provides at least a part of the explanation as to the difference between the flight characteristics of the three mini-wings. Moreover, an accelerated wing has a greater propensity to collapse.

RL arrived about 15 minutes after CF had launched for his final flight. A video taken at the time shows that CF was already experiencing penetration problems. This could have led to a more cautious approach by RL however, the seemingly unproblematic flights of the conventional gliders might have countered this perception. A few more minutes spent observing and analyzing the conditions, particularly how other pilots are coping, can be useful.

Discussion on Mini-wings

Rick's accident has, rightly, triggered considerable discussion, mostly about the choice of flying a mini-wing. It turns out to be a divisive issue. A few (there may be many more) pilots including extremely experienced XC pilots are very anti. Another group which also includes experienced Lakes' pilots consider them the glider of choice whenever conditions are non-conducive to an XC flight. Perhaps the

largest group is in-between, seeing them as a useful means of flying in stronger conditions in laminar air, typically coastal flying.

The spectrum of paragliders has widened considerably and pilots have never had a wider choice from speed wings to high performance XC comp wings but as the BHPA makes clear: All gliding is potentially dangerous. Paragliding is perhaps potentially more dangerous than other forms, as clearly stated to all new entrants to the BHPA pilot rating scheme through the standard BHPA risk warning. Sub 20m wings (speed wings/mini wings) are potentially more dangerous again, as confirmed by the statement in the sub 20m endorsement renewal. There is no BHPA syllabus for soaring speed wings/mini wings, only a 'descent only' syllabus currently under development. Soaring a wing of this type is an altogether different risk profile from paraglider soaring, due to the uncertified nature of speed/mini wings, and the stronger conditions often needed to soar in.

Conclusions.

The accident resulted from a confluence of factors, principally the strong, potentially turbulent conditions in combination with the decreased collapse resistance of a mini-wing on quarter trimmers. This latter factor would have been neutralized had a meticulous pre-flight check been carried out.

Lessons.

Know your wing! Understand its strengths and weaknesses (particularly the latter) and fly it accordingly.

Be meticulous in your preflight checks. Ensure that your check list takes account of all your wing/harness/equipment combinations.

Don't rush to launch. (just because the sight of pilots having fun is pissing you off)

Harness Choice.

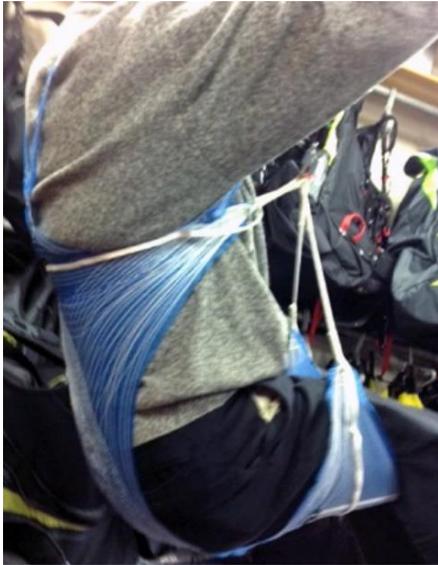
As part of the discussion on Rick's accident, Ed Cleasby raised the matter of harness choice, to what extent could this have affected the seriousness of the injury. Ed expresses the view; 'A personal observation of mine is that (generally speaking) pilots tend to put a lot of thought into the best/safest wing for them. They read the test reports, gather opinion, try them out etc. They accept that the wing they fly is a major factor in terms of their flight safety. But, when it comes to harnesses then safety seems a more secondary consideration to weight, comfort, aesthetics, storage, ease of use, flightdeck etc. Reports don't seem to be given the same consideration as if it were a wing. Maybe an age thing - but I'm finding the safety (not sure why it gets referred to as passive safety) aspects are becoming paramount.

Rick's response was; 'Harness. Advance Easiness with optional air bag.

Comment. The airbag is tiny and solely under the bum. I would describe it as 'minimal protection'. The harness is a lightweight split leg type. As far as I can tell I landed on my left hip, not my back and not my bum. I reckon most harnesses give poor hip (side) protection and unless you have the Mickey Mouse Ears padding (and not many do) then most harnesses offer little protection in a side impact. Of course I don't really know what angle I came in at, and it's possible that a 17 cm mousse protector might have helped. I used to fly the mini wing with a Kortel Kuik mk1 harness into which I'd fitted a full 17 cm Supair

mousse protector. I changed it to the Easiness for low weight and low volume reasons. I'm not totally convinced it would have helped due to the side impact, but the Kuik would definitely have been better than the Easiness in a direct vertical back or bum impact. So probably not a wise change.....with hindsight!'

The consensus of the Safety Panel and other interested parties is that a harness is a personal choice balancing weight and size against protection. As Steve Giles says, we all want lightweight harnesses since accidents happen to other people. My personal choice is for some form of mousse rather than an airbag which I abandoned after Dave Horne's accident in which the bag was punctured by barbed wire leaving no protection when he impacted in a gully. Others disagree.



There is a massive range of harnesses on the market but there is also a great deal of information on which to base a choice. Paragliding Forum (<http://www.paraglidingforum.com/>) is a valuable source of information, particularly on newly introduced equipment. The club KNOWLEDGE BASE already contains links on harnesses and is worth a click. A visit to your local paragliding emporium is certainly worth a visit both to see and try the harnesses and get sound appropriate advice. Better to spend time researching the best harness for you before you fly than researching why it let you down after the event.

*Blimey yor 'aving a larf - CSO models the Ozone F*lite*

Accident and Emergency Management



“I was flying on Wolf but did not witness the incident. What I did witness was Ali deliver a master class in incident management. Under Ali’s direction the few pilots present responded remarkably efficiently to the situation ensuring the emergency services were able to carry out their tasks unhindered. The Keswick Mountain Rescue and the medics and flying crew of the Air Ambulance were absolutely bloody outstanding. Rick is very fortunate under the circumstances”.

This statement which I posted on the forum in the days following Rick’s accident was both a statement of fact and an attempt to stem a negative current which seemed to be flowing. As Simon Blake posted, ‘While there’s value in asking what went wrong, can someone who knows make a list of what went *right*? Investigations focus on the negative, rightly, and ask how we could prevent it happening again. But it will happen again, perhaps when one of us is on the scene. How do we best manage the situation, and what can we learn here? Skills we need, priorities we should know, any tips?’ The following is part of that process.

The factors on the day were very much in favour of a positive outcome:

Rick was flying in company on a recognized soaring site.

He had the good fortune to crash almost at the feet of another pilot.

That pilot was competent and experienced and totally familiar with the local area. He knew what to do and did it. Through personal relationship he was able to establish a direct link to the local MR which saved time.

Mobile phone reception was excellent. Phones were fully charged and to hand.

The local MR included paragliding expertise (to put it mildly!) and were entirely familiar with the site and access and implications of a ‘fall from height’.

The accident location on an open grassy rounded hill, free of rocks and obstacles with a vehicle track running along its base was perfect for MR and air ambulance access.

The casualty and attendant pilots were highly visible from a considerable distance.

The other pilots were able to respond efficiently to requests and, when necessary, keep out of the way.

So, that’s all good then? Well perhaps. Re-read the list putting yourself into the situation. Then read it again but on a non-recognized site. Then try the worst case scenario, you’re flying XC alone and you crash into rough ground in an isolated valley.

Let’s start with the basics:

Ignoring the worst case scenario for a moment, do you know where you are, to the point you can provide a grid reference and/or give directions to the location. Don’t forget, you may not be talking to MR experts.

Where’s your phone, charged? Is there network coverage? No problem because you are registered with the emergency SMS service aren’t you. Phew! And you’re familiar with all those simple tricks to improve reception in wilderness areas, and you’ve practiced them?

How's the old First Aid? You're booked on the next course? Excellent, that'll help. Where's bloody Ali when you want him?

Now try the worst case scenario. No let's not, let's leave it until the next Bulletin which will be devoted entirely to emergency procedures.

Please don't think this is simply the CSO being sarky and defeatist. It isn't and I'm not. I have always been concerned about my own inadequacies in such a situation. One of the very positive outcomes of the recent accidents is the degree of personal and community reflection it has triggered. First Aid courses have been run and Jocky Sanderson has hosted an in-depth discussion on accident management. Over the next few weeks we will be focusing on accident and emergency procedures with the aim of coming up with better structures and systems to ensure pilots are prepared for the worst. We will be looking at:

First Aid training focusing on paragliding - (which need to be cyclic, not a one-off).

Emergency procedures, scene management, callout procedures.

Communications - technology and methods.

Tracking and locating devices.

And all those things I haven't thought of but you have.

If you would like to contribute and be a part of this exercise, please contact me either at field950@gmail.com or I will be posting a thread on the forum. All contributions and questions will be welcome however seemingly minor.



Fly lots, Fly safe!

CSO