Paraglider Water Landing Tips and Insights

Compiled from chats on the SPHGC Fly Sydney WhatsApp group on 14 July 2020

Thanks to the following pilots for their Insights – many based on water landing experience

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Roger Stanford CFI
Greg Hurst CFI
Rhys Donnellan
Adam Edgar

Plan your Flight

- best thing is not to get caught out and always have a LZ within an easy glide, then you will never worry about going in the water – ROGER
- Wear a life jacket or use an inflatable device. Either of these will keep you relatively upright leaving your hands relatively free to unclip. - ADAM
- a good hook knife is your saviour – GREG
- If you choose to fly in a location, en-route, or in a manner that increases the risk of a water landing then you need to dress for the occasion. For many years I have worn a buoyancy vest for XCoastal flights that have a medium or higher risk of a water landing. I wear clothing and shoes that suit the water (&rocks) and I have hook knives on my harness and vest. - GREG
- For any pilot wanting to fly over any significant water I suggest jumping in a pool, dam, etc and try out their harness. It will give you good preparation for a water landing. Of course, remove your reserve before-hand. If in salt water keep the harness wet until you can rinse it with plenty of clean water before drying it out. Usually best to dry in the shade. – GREG

Which way to land – Upwind, Downwind, Cross wind, Blue/White water

- Down-wind landing is advisable in water so as to have the wing over fly and land cells first to (a) hopefully reduce initial water intake to wing and (b) keep the pilot away from the lines – BRYN
- That's correct Bryn, always land downwind, if you have the option, for all the reasons you stated above, most of all the wind will keep the glider and lines pulled tight and away from your body - ROGER
- A water landing will take anyone by surprise, until you have done a few. I have landed downwind, into wind and cross wind. I have landed in very light and very strong conditions.

To be frank none of them are ideal and they all have their complications. Here are some tips I learnt the hard way: - GREG

- Regardless of the wind direction and strength do you best to get yourself and your wing away from breaking water. For a pilot going down at Warriewood in front of launch this might mean a late decision and flying into wind away from wash and rocks is the smartest move. The blue water is the softest landing you can have. Rather than overshoot or stall the wing I suggest a turn of 45 degrees just before or at impact so the wing flies somewhat cross wind. It flies away from you taking the lines, the wind/wing will not create a sail and pull you through the water and it will not stall back towards the wash. If it collapses (stall or asymmetric) it won't land on you.
- If the wind is strong, e.g. above 15kn, I do not recommend either into or down wind. Both will create a sail of the wing with lines tight. I found particularly downwind the combination of a nose down inflated wing acting as a sail, lines tight and pulling me face first into the water was uncomfortable. It took a lot of kicks to get upright and then I started getting tangled. In strong conditions I suggest 45 degrees or cross wind, whatever takes you and the wing to the safest place.
- Light conditions mean pretty much any direction is OK provided you put the wing in the safest place and furthest away from you. If downwind or cross wind let it over fly. If into wind if it is zero wind let it overfly, but if there is 10kn you may be best to stall it (symmetric or asymmetric) so that it falls behind or to the side. Once again, a 45 degree or cross wind element can work well and takes the least thought.
- Water landings happen suddenly, just as the video says. If it is your first then you will probably have zero time to prepare. Just get yourself and the wing away from danger, particularly white water, to buy you time in blue water, then have confidence that a good hook knife is your saviour.
- Unless line length exactly matches the amplitude of the swells (highly unlikely) the lines will be alternately tightened and loosened as the swell effects the wing and the pilot at different times. Yet another reason to get yourself and the wing as far from shore as possible. The earlier the decision to clear the ridge the further into the blue water you and the wing can penetrate.
- The hard part is to keep feet and legs down and no kicking.

Once You're in the Water – some self-preservation tips

- Other than landing in breaking water, the biggest danger is being trussed like a pig for the spit. In my experience there is not a general tangle of the lines. Each small kick you do to balance yourself in the water creates a wrap around your ankles. Very quickly your ankles are very tightly tied together. I mean VERY TIGHTLY tied. This is not a tangle, it is imprisonment. Hence the need for a hook knife. The less you kick the less likely you will be tangled. Over time I have improved my technique to reduce leg movement and particularly eliminate kicking. This worked well until I landed downwind in stronger conditions and had trouble getting myself upright against the pull of a full sail. I got trussed, again. – GREG
- harness off (if it doesn't tip you face forward it is only helpful for a minute or two before sinking too much); shoes off (especially boots with hook loops) and the hardest part; be prepared to swim away and abandon your gear. The lines are absolute f#%kers for wrapping ankles as you say. Kicking to get the harness upright was what got me into trouble – RHYS

- Forget about trying to unclip speedbar in swell...I've been there done that, it's very difficult to do whilst in the harness in moving current and swell. (Getting out of the harness is easier than disconnecting the harness from the wing. - ADAM
- I have tried both releasing from harness first and also releasing the wing from the risers and speed system first. Rhys like you I prefer releasing from the harness and swimming clear from all gear using arms only. Then if appropriate, swimming back and dragging the harness away from the wing to tighten lines and not get tangled, release the harness from the wing and speed system and use the harness as a buoyancy aid. The harness is also the easiest thing to get ashore, or into a rescue craft. The wing (and lines) is the last consideration. The buoyancy vest is mainly for what happens after I release, or if I get tangled and trussed. I have found that a standard buoyancy vest does not add buoyancy when sitting upright in water, or slightly forward or back. The buoyancy of the back protection in a harness centres the buoyancy mainly under your bum and lower back, lifting you up so that the buoyancy aid of a vest is no longer contributing meaningfully to your flotation. The problem is that the centre of buoyancy of the back protection lifts the pilots body mass centre of gravity up making the pilot 'top heavy' and unstable. This is why it's hard to be stable without kicking, the high centre of gravity makes the pilot unstable in the water. Getting out of the harness eliminates this instability.
- Alternately I and some of our team pilots have been experimenting with quickouts. What a great invention. Release and the wing floats away from you. Particularly good in high winds. -GREG
- Getting out of harness first is definitely what I found easiest. For me 2 problems trying to stay in harness with wing clipped to it; - ADAM
    - The ocean swell causes a lot of tension in glider lines and
    - Any airbag or foam in bottom of harness has the tendency to flip you upside down in the water...without some kind of vest or floatation above my waist, it's almost impossible to stay upright. I had to disconnect whilst upside down with my head underwater...its bloody not fun.
- The reason I advocate a vest is because the flotation is on my body and not the harness. So I can disconnect and swim away from everything automatically taking my flotation with me. It's really sweaty in summer though! - ADAM
- My harness at the time was a Niviuk converse (reversible). The airbag underneath had more than enough buoyancy to flip me on my side and upside down. It's like trying to balance on a round pipe with a flat plank of wood whilst at the same time dealing with 2 metre blue water swells and the tugging of the wing. The seas and swell on the day I went in were big...and water temp cold. After 40mins in the water I also got a pretty bad case of hypothermia. Forever thankful rescue arrived when it did. I wouldn't have lasted much longer - ADAM