Cut and paste from my log book

The weather forecast was for a weak cold front to pass over Perth during the morning with rain forecast between 9am and 2pm. On Sunday morning the course was altered due to the breakdown of the RPYC start boat, we were asked to sail a modified Course 2 with a start near Foam buoy, and use Dolphin East buoy as the new windward mark.

It was raining and quite windy (16-20 knots at Melville Waters) so I rigged *Kailani* with one reef. However, as we set off from the beach around 1235 it had stopped raining and the wind had dropped out completely so we took out the reef. We left Matilda Bay in light winds and headed off to Foam (near Sth Perth YC) to find the start boat, on the way we checked the location of Dolphin East which was fortuitous as it was not where I expected it to be, thank you Caleb!

Predictably, the wind increased in strength and was blowing around 16-18 knots at the start for A Fleet at 1330hrs, and by the time we started it was still a strong 16+, I was beginning to regret having a full rig. However, despite this we had one of the best starts, on time right at the boat end of the line. *Arapoa* was 5-7 metres downwind and slightly behind us, and the rest of the fleet further down the line. The first beat was into a 16-18 knot wind, but *Kailani* felt good and we were in control. As we knew where the mark was, we sailed there in just two tacks. We rounded a clear ahead of *Arapoa* and the rest of the fleet, and headed downwind back to Foam. The wind was still strong and we made good speed (8.5 knots!), gybing just before the mark and rounding into a strengthening wind associated with another band of rain approaching from the NW. As the rain approached visibility to the next mark (Robins) was poor and it was hard to see the mark at times, the wind was also increasing in strength and *Kailani* was getting really hammered. We had several gusts where we had to let everything fly. Despite easing the main and jib we were shipping water over the leeward gunwale as each gust hit us. After each gust we tried to sheet in and regain control, but the boat was being swept sideways at an alarming rate, the rudder and centre board were completely stalled or out of the water! After the 3rd gust we had lost perhaps 10m to leeward, I saw *Arapoa* slowly passed us to windward with her sails eased and flapping (they had one reef in!). We were being blown sideways and had no forward speed, it felt like the wind seemed to be focused on us alone! For a moment I thought we were going to get back in control but then another gust laid us over to port and we both ended up on the centreboard with the mast lying on the water. I was surprised that despite us both being on the centre board *Kailani* kept going and rolled completely over. Standing on the inverted hull of *Kailani* was a shock, the capsize had taken only seconds. Out of the corner of my eye I noticed an apple floating away and the white plastic cover to the GPS slowly sinking. While inverted we also lost a black mooring line, a number of sail ties, several small pieces of spare rope and 8m of 12mm white rope I use for easing *Kailani* off the trailer.

I said to Caleb that we should wait for the squall to pass, but also to let the asymmetric flooding system take effect. After a minute or so the starboard side gunwale popped up and

we started to heave on the centre board to right the boat. *Kailani* came up pretty quickly, so quickly in fact that I didn't have time to clamber over her side and into the cockpit, a feat that that Caleb achieved, I ended up in the water and continued to pull on the centreboard to help complete the righting. *Kailani* came up right on top of me and I was briefly submerged under her in a mass of bubbles. Fortunately, I kept calm and pulled myself clear using the bilge keel. Now the danger was *Kailani* sailing off without me, as it was still very windy. I found it impossible to heave myself onboard over the amidships gunwale even with Caleb helping me. We were both wearing 50N buoyancy jackets, however my saturated clothing was just too heavy, so holding onto a rope (set up for this purpose) and the boats gunwale I moved around to the transom and used the rudder step to get on board, which was very easy.

Kailani's cockpit area was around 1/3rd flooded but this cleared quickly via the self-drainers and Caleb bailing a couple of times with a bucket. I think we were both too shocked to continue the race so we dropped the main and started tidying up the mess of ropes and gear that was lying in the bottom of the boat, but also to check for any damage. The club rescue boat appeared and asked if we wanted help, but we said thanks, but no we could manage. However, after a few minutes, I was feeling quite cold, and for a moment regretted saying no. At that point I had not fully realised that Caleb had managed to stay almost completely dry. After a quick chat we decided to call it a day and head back, Caleb took the helm, while I tidied up. *Kailani* was going to windward and back to Matilda Bay at around 2-3 knots on jib and mizzen. After 10 minutes the wind had dropped, so Caleb started to paddle, which I then took over to help keep warm. We were understandably wary of hoisting the main sail, as the wind appeared to be so variable. Progress was slow so we hoisted the mainsail and slowly sailed back into Matilda Bay and the ramp. We sailed/paddled through the finish line giving the finish box crew a fugitive wave.

Once ashore I realised that very fortunately I had brought some dry clothes with me and a flask of tea, changing my saturated top for a dry fleecy made a huge difference, as I was feeling quite cold.

On Monday morning, I woke thinking whether we should have carried on, but I think the wind chill of continuing the race with another 2km windward beat ahead of us would have seen me get hypothermia!

Very fortunately there does not appear to be any damage to *Kailani*, just lost gear and dignity!

Lessons learnt! I rigged Kailani with a reef, as it was blowing 15-20 knots just before and during the rain, Michael Arthur said there was more rain on the radar heading our way, but when we left the beach there was no wind. So, lesson 1, if there is more rain forecast, expect it to repeat what had happened before, ie strong wind/rain then a period of lower winds

before the cycle repeats. In retrospect I should have left the reef in….but would a freaky 35 knots squall have still overwhelmed us?

I/we never considered water ballast as we thought based on previous experience that we could feather the sails in the worst gusts, which we assumed might be around 18-20 knots. The rule stating that we cannot dump water ballast once it is taken onboard tends to make one take a chance so as not to be encumbered with the unwanted weight if the wind should drop completely.

Even with one reef the 35-knot squall we faced might still have been too much, who knows? The main sail was completely released but pinned against the slightly swept back shrouds and therefore still creating an immense amount of drag. Once we were initially knocked down, the rudder was stalled or out of the water so feathering the boat into the wind was impossible.

I also keep wondering if I should have tried to steer Kailani off the wind when we were being slammed by the gusts, and the boat came upright between the gusts, this may have kept flow over the centreboard and rudder, but there again both were almost out of the water as we pinned down.

I was quite surprised at the distance to windward we lost fighting to remain uptight through these gusts of wind. One moment we were quite close to *Arapoa* and the next we were perhaps 20m downwind going sideways.

Not surprisingly the open Blue Performance cockpit bags did not retain any of their contents, bizarrely though my much-used recycled Gatorade water bottle stored in one of the bags stayed in the boat, I guess because it was buoyant and was trapped under the boat between the gunwales. Spare gloves and miscellaneous rope were lost.

The cockpit bag with a flap lid also lost most of its contents so the flap needs to have a small rope/or additional Velcro added to keep the top closed

The under-foredeck netting retained all the gear placed in there, even if it did get wet. The cheap Whitworths yellow dry box saved my car keys whereas Caleb's thin gauge (nylon material?) drybag was damp inside. It was not tied to the boat; however, the netting kept it onboard. Any dry bag must be tied to the boat.

The port side locker which was submerged with each gust before we went over, I later found was 1/3rd flooded. The weight on the leeward side would not have helped our stability, but perversely would have helped the asymmetric capsize recovery system Bay Raiders are fitted with. The locker seals need checked as they must have lost their seal with the passage of time.

The GPS battery in its repurposed Tupperware container partially slipped out of its elastic tie down, so this needs to be tightened/reviewed. The GPS worked throughout the time on the

water, despite some water inside the battery container, and presumably the main display being partially immersed.

Caleb reckons that a bucket/sea anchor that deployed from the mast or bow would slow the boat down and prevent her from running away once righted, if deployed forward would potentially hold the boat head to wind. I think this is an idea worth exploring

I will revisit rigging ropes on each side of the boat that can be used as foot ropes to climb back on board from the side of the boat, not the stern, even though the rudder step is very easy to use. The foot ropes need strong elastics each end to hold them out of the way. This method is strongly recommended by John Welsford/Peter Kovesi.

I was surprised at how cold I felt after being in the water. I will consider keeping a dry bag on board with a spare fleece or similar. Having the flask of hot tea in the car was also most welcome!

Ultimately, the gust of wind associated with that particular rain squall was far stronger than anything else encountered that day and also very localised. The Melville Waters wind recorder did record a 25-knot gust, but we were around 1km south of the weather station. However, Swanbourne did record a gust of 30 knots around the same time.