from SPECTACULAR TO UGLY

When high winds descend on Jamieson Bay at one of the scenic Bass Strait islands, it makes for spectacular photography; that is until it turns ugly and catamaran *Take It Easy* takes a beating. **CHRISTINE DANGER** recounts the experience and lessons learnt.

During our 2016-17 summer cruise around Bass Strait, one thing stood out: the persistent and particularly strong westerlies. Throughout our two months afloat, we were running from one beautiful anchorage to another, hiding from strong winds, especially once we reached the Furneaux Group in Eastern Bass Strait. Situated within the renowned Roaring Forties, these islands can be exposed to mean winds.

Sometimes even at anchor, things can get hairy. In January 2017, a westerly flow installed itself for 12 days. We had taken shelter at Jamieson Bay, on the south east coast of Cape Barren Island. Some people say “Wind is made at Jamieson” and they might be right.

Part way through that period, the westerlies were forecast to strengthen, with 40kt gusts likely. When you hear the BOM forecasts and the warning “gusts can be 40% stronger than predicted and waves up to twice the height” take note!

During the early morning of January 14, the wind was picking up and up, climbing steadily in the mid to high 30’s. Then it really blew: 40, 50, 56, 60! The bay was a sea of white angry plumes of spray. It looked like a snow blizzard. The shrieking through the rigging, the tugging at the anchor and 50m of chain, the wind generator sounding like a truck revving it engine ... It was spectacularly furious. As I peeked through the side of the cockpit, my glasses got blown off my face, never to be seen again. There was a lot of spin drift, in fact these were turning into willy-willies.

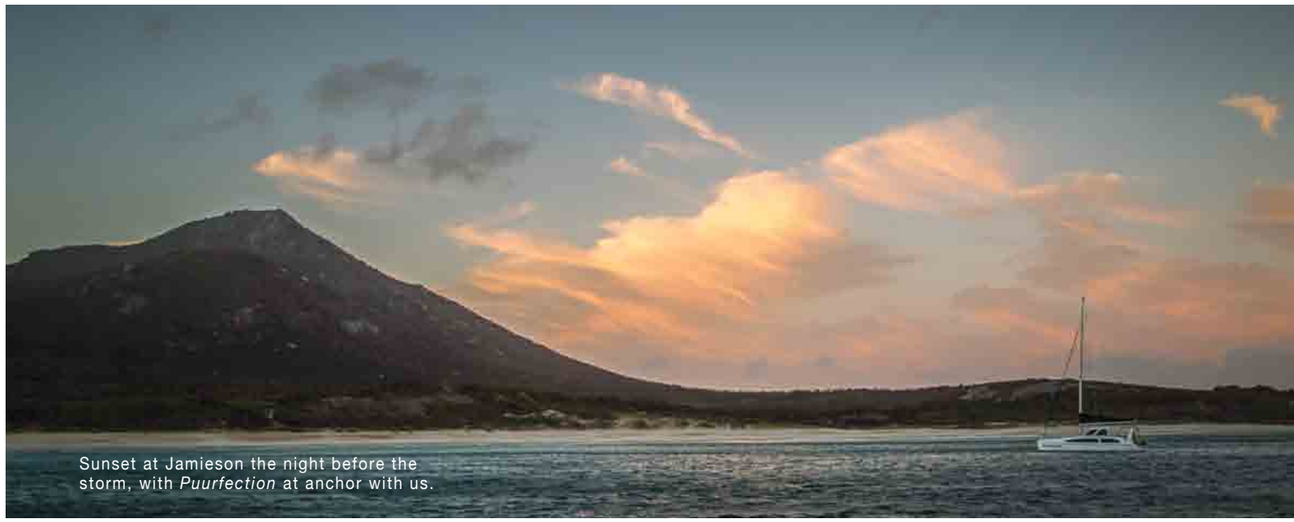
THE SEQUENCE OF EVENTS

When you are a keen photographer, wild weather makes for interesting images. I stepped out of the cockpit and stood on the side to look towards another catamaran anchored with us, Purrfection, and took some photos. It was really spectacular.

Then I looked up towards the bow. A lot of water was being picked up by the gusts in the distance near the rocks. It quickly developed into a willy-willy. I remember thinking “oh no, it’s coming towards the boat, put the camera away and hang on!” The next thing I was turning away towards the stern, getting sprayed; I heard a loud noise and saw these black shapes spinning away and the huge jack hammer noise started.

Spectacular had just turned to ugly and scary when two of the three blades from the wind turbine got torn off. The last one left was looking sorry, and the whole unit, now unbalanced, sent violent shakes through the boat. The pole and struts supporting the turbine were wobbling violently and uncontrollably, making a horrible jack hammer racket, threatening to tear the whole thing off the frame it was attached to.

It took us well over an hour to secure the last broken blade, stop if from whizzing around and tie the pole and struts down to stop them from wobbling. It is hard enough to lock the blades in calm conditions, but try



Sunset at Jamieson the night before the storm, with *Puurfection* at anchor with us.

Panoramic of Jamieson Bay after the storm – still blowing 30kts for another few days.

getting it done when it is blowing at over 50kts and you get the picture! At one stage I was so nervous I could not remember how to tie a bow line – blank mind, and Wade was perched up on the frame with only a wobbly pole to hang on to, while trying to get a rope up and over the turbine with a broom. Crazy stuff!

We got things under control in stages. First we got the tail of the turbine into wind and held in that position with the mooring hook attached to the rigging. Second, we secured the pole with multiple ropes to minimise the wobbling. Third, we got the rope noose we keep on the pole to lock the last blade so it could not whizz around. This involved getting the rope over the turbine to pull the loop up. Not easy in the howling wind when you have to reach up high. We used a Hawaiian sling to bring the rope up and over turbine engine. After many wobbly attempts, it finally worked.

THERE WAS A NASTY CRACK ALONG THE FRAME WHERE THE STRUTS ATTACH ... NOT TO MENTION THE DINGHY DAVITS AND THE SOLAR CELLS!

Things were a bit more under control by then and we could survey the damage. There was a nasty crack along the frame where the struts attach ... not to mention the dinghy davits and the solar cells! We needed this stabilised. Wade cut some lengths of wood and bolted them on either side of the frame to strengthen it.

I am very proud of Wade – resourceful and calm in a crisis. But all we can say is thank god it happened in daylight. It continued to blow hard all afternoon. It was 56kts when all hell broke loose, it reached 60 later. It is not until late that evening that it calmed down to 30kts – it is all relative.

When we reflect on the day's event, we got off lightly.

TOP: Makeshift repair to the cracked frame supporting the struts, the solar panels and the davits.

ABOVE: What is left of the wind generator, now parked!

THE LEARNINGS

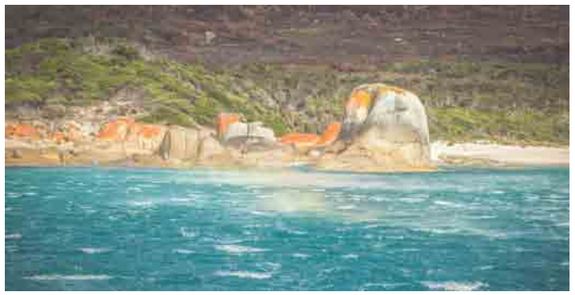
We believe the wind generator failure happened as a result of a combination of elements, some due to a natural phenomenon, others because we failed to anticipate problems.

The pole for the wind generator was never stable enough. The struts we had engineered were not installed exactly as planned and consequently were not strong enough to stabilise the wind generator. In low wind, it was fine, though it had some flex. But in high winds, it was asking for trouble. We should have tied it down with extra ropes as a minimum, and not accepted a compromised construction in the first place.

We had noticed a small crack in the frame where the struts attached at the beginning of our trip and thought "we'll have to attend to this when we get back". In hindsight we should have strengthened the frame then, as soon as we saw this. The additional flex in the pole in the high wind was opening the crack with every strong gust, and we had lots of strong wind during the cruise.

When the willy-willy came, it was the last straw. Had we attended to the first two problems, it might not have wreaked havoc.

The view from our cockpit at 56kts



There are a few lessons there, but the main four are:

1. If you notice something wrong, figure out the cause and take action immediately to minimise risk. We should have done what we did after the incident: clamp the frame with the two strips of wood as soon as we noticed the crack in the frame. And we should have put extra ropes to stabilise the wind generator pole when we knew 40kts winds were forecast.

2. Check the wind strength your wind generator can operate at, and if it looks like the wind will be in excess of its safe margin, park the blades! It is easier to do this before the wind picks up. The Ampair is rated for storm conditions. In future, if we get a 40kt forecast, we will park the blades.

3. Make the 'parking' of the blades easier by threading a loop of rope through the eye of the wind generator tail. It would have been much easier to put the boat hook through a loop of rope than a small hole in the tail.

4. Carry extra ropes, sheets of marine ply, fibre glass sheets, epoxy, nuts and bolts for any eventuality. We were lucky we had plenty of that and for once I have to say being a hoarder has its uses.

We finished our cruise a month later without experiencing further problems and once back on terra firm, were attending to repairs. One thing stands out in our mind: prevention is better than cure; it's a lot cheaper and easier on the old ticker too!

TOP: At anchor in 56kts!

ABOVE LEFT: Spindrifts starting to form.

ABOVE RIGHT: Jamieson Bay in 40kts.

Chris and her partner Wade sail on Take It Easy, an 11.6m catamaran from the drawing board of Easy designer, Peter Snell. To follow their adventures, and see more of their photography go to **www.sv-takeiteasy.com**