The day is warm and what breeze there was is dying. Progress down the run has been slow and concentration is focussed on the boats ahead when the crack of thunder suddenly switches your attention astern. The previously distant cloud bank has now turned a menacing green and is rolling forward at an alarming rate. What is perhaps more menacing is the curtain of mist/rain engulfing all below it and the dark agitated line approaching across the glassy water.

This is but one scenario marking the approach of extreme weather. Wind fronts can roll through in clear air with little warning, and thunder storms can arrive in still air, providing little opportunity to head for shore as the air crackles and metal boat components build up static charge.

The definition of "extreme" depends to some degree on the skipper's level of expertise or bravado. The cut-off wind limit for Paper Tiger class races is when the wind speed is consistently above 22 knots. However, some guys might argue that this is when sailing PT's gets exciting. These are more likely to be big guys or young guys with surplus income.

While lightning and big waves can feel pretty extreme, the purpose of this article is to suggest how one might return to shore uninjured and still attached to a boat that is in one piece when the wind goes well beyond race limits, i.e. survival conditions. The point at which you decide that enough is enough is up to you, but I would suggest that the following signs may indicate that the race could become expensive if you persist:

- It is not possible to sheet on to sail to windward without the boat being lifted and flung sideways or the bows driven forcibly underwater by gusts.
- It is not possible to bear away with the boom let fully out without the bows being driven underwater.
- It is not possible to tack the boat because it is driven back onto the same tack or the boat is driven backwards and the bows lifted by the wind getting under the trampoline.

When severe weather hits, it hits everyone. So don't expect that help will be immediately at hand. You may well have to deal with this one alone, at least for a while.

It is important to understand that extreme weather fronts do not usually comprise a strong, steady wind. There may be violent gusts that come from significantly different directions to the general wind. Therefore, the boat has to be able to respond to these without powering up significantly.

So what might be an immediate prudent course of action if this is your first time in this situation? I suggest the following, based on personal experience:

Fully release the mainsheet and traveller control. I am assuming here that the mainsheet has been knotted to prevent the boom hitting the shrouds, and the traveller control rope is the right length to prevent the traveller car beating itself to death against the traveller track end stop. If not, then both need to be cleated just short of these points. The aim here is to allow the sail to be pushed out of the way by any errant gust without it generating power.

Fully release the vang and downhaul.
Releasing the vang will allow the boom to lift freely, thus allowing greater deflection by the gusts. Releasing the downhaul will depower the sail luff so that it is less likely to drive the mast forward.

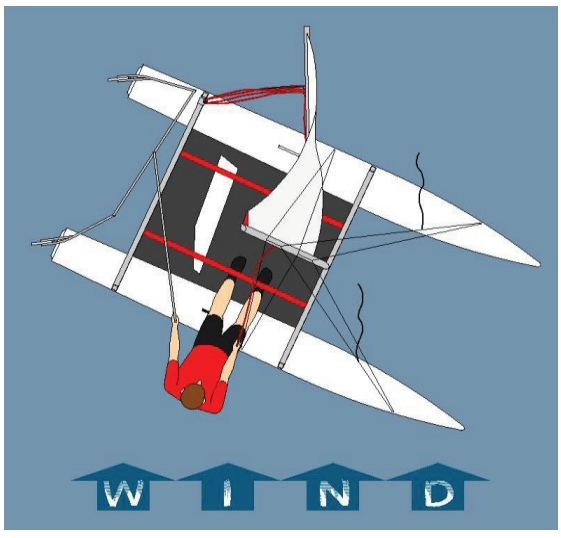
Pull the outhaul on full.
This will depower the lower part of the sail where the boom stops it flapping freely.

Adjust the lower forestay so that it is firm with the mast straight.
It is a good idea to provide the mast with as much support as possible. A tight lower forestay will bend the mast and loosen the upper stays and shrouds. This is definitely not a good idea should the worst happen and the boat capsizes....but we are not going to let this happen, right?

With the rig under control it is now time to address boat control. The aim here is to let the wind do its thing without letting it take charge:

Pull up both centreboards all the way.
This will allow the boat to slide sideways in the big gusts rather than violently lifting a hull or driving forward and potentially under a wave. Taking them out altogether is probably not advisable unless they are firmly attached to the boat....you may need them later. The hulls will provide enough grip to allow some steering control.

Push the tiller hard to leeward and hold it there.
This will keep the boat relatively stationary and turned slightly to windward. The boat will actually creep slowly forward but the wind resistance of the hulls, rig and you, and the loose mainsheet will stop it turning into the wind. Should an errant gust power up the sail, the boat will immediately turn into the wind and depower the rig.



Hike out.
This is where you do your bit. We are talking serious wind here. Every doubling of wind strength quadruples the power that a sail can develop, so big gusts can develop a lot of drive from a small area of sail. Expect some surprises and do what you would do if going to windward in a strong manageable breeze, hike out up against the shrouds and stay there. You may have to pull the windward centreboard out to do this. If you are pitching in short steep waves, and the boat is feeling light in the bows as the wind gets under it, hike out ahead of the shrouds to keep the bows down.

Now it is a case of staying alert and watching for approaching gusts which may require quick responses on your part as the boat leaps and plunges.

You may notice that I haven't mentioned dropping the sail or lowering yourself into the water to hold the boat down. There are good reasons for this. Unless you have a halyard release system that operates easily while you are sitting on the boat with all the sail adjustments attached and with the weight of a flailing boom hanging off the bottom of the sail, you will be putting yourself in a position on the boat, while trying to release it, where you can't stop the boat capsizing if struck by a gust. If you do get the sail down, will you be able to secure it? Also, as long as the sail is up, people can find you.

As for going into the water, **DON'T!!!** Your arms will soon tire, you will be pounded by waves, you may get cold and you will be in a bad position to counteract the forces trying to take the boat from you.

Having got the boat under some control, it is a good time to assess your situation. Points worthy of consideration are:

- Does this look like (or was it forecast to be) a passing weather front. If so, then sitting it out in survival mode is probably a satisfactory option as sometimes conditions will moderate within half an hour. If there is clear sky showing behind the cloud front, then it should pass soon.
- The boat will creep forward and to leeward, so is it safe to carry on in the current direction until the worst of it passes, or is there something ahead of you that would best be avoided?

If there are obstacles ahead, or there is no sign of the wind letting up, you are going to have to plan a way to reach open water or a safe shore (unless a rescue boat gets to you first). If there is a safe shore ahead, edge your way towards it in the lulls. If the shore is unfamiliar, approach it carefully in case of submerged hazards. It is worth noting that getting off the boat and hanging onto it on your own, once ashore, won't be easy either. You may be safer on the water until help arrives by boat or on the shore that you are heading towards.

If you have to tack to avoid hitting something, then this will take some planning. A temporary lull in the wind and a "flat" spot in the waves is essential. Reversing out of a stalled tack in strong winds and steep waves is definitely risky.

The above technique has proved effective a number of times in up to 60 knots of wind on large lakes. Hopefully, you will never find yourself in a situation where you will need to apply it, but it is best to be prepared.