

Little guys in **BIG** winds

Lighter sailors can tend to struggle in stronger winds. Victorian, Drew Helmore, favoured heavier conditions and always did well in them.

by Drew Helmore

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The 2000 – 2001 National Titles at Meningie, South Australia, reminded me that one of the great things about sailing a Paper Tiger is that you can have people of dramatically different body weights sailing competitively against each other in strong breezes. Ron Wiggins has been suggesting to me that I write an article on heavy weather sailing for little guys and girls. For those of you who don't know Ron, he is a big guy weighing in at 95-100kg. At the other end of the scale you have little guys like myself weighing 60–64 kg. Ron is bewildered by the way PT sailors weighing around 35kg less than himself are able to compete against the big guys in windy conditions; so the purpose of this article is to provide the little guys of the fleet with tips on surviving the big days.

Before we move on I will define '*strong breezes / windy conditions*'. This is a difficult task to begin with because individuals have varying definitions. For instance, one guy might describe windy as 18-20 knots and another might define it as 25-30 knots. So, for the purpose of this article, windy is defined as '*conditions where your PT becomes a handful for you*'. Hopefully you can apply strategies documented below when the conditions become too much for you, regardless of the wind strength.

Drew won the 1998 Nationals at Batemans Bay (NSW), which had its share of heavy conditions. His home club was Elwood Sailing Club, at the north end of Port Phillip Bay, a great training ground for strong winds and big waves.

Title picture- Drew at the 2006 Nationals in Hobart.

Before You Leave The Beach

It is a good idea to tighten your upper shrouds to provide your rig with more support than normal. Because we use so much luff, vang and mainsheet tension in windy conditions, the mast is bending more than usual and therefore the top hound is effectively lowered, i.e. it is closer to the deck and the top of your rig becomes loose. The amount you tighten your rig will of course depend on how tight you have your rig for lighter conditions. I normally carry a firm rig, so I only tighten the upper shrouds by about 5mm. However, a tight rig is not a necessity. Some PT sailors such as Cam Owen and Bruce Rose have been successful using loose rigs in windy conditions. However, bear in mind that these sailors are very experienced in terms of protecting their boats in strong winds.

I have recently put some really great little "Staymaster" adjusters on the lower shrouds. These can be adjusted on the water with ease, which means there is no need for adjustment before I leave the beach. The benefit is that you can adjust your power control right up to the 5 minute gun. They are calibrated so you can always find your optimum setting and adjust in and out from there. I should mention that I have only used these adjusters over the last season and have survived windy conditions without them in previous years. So don't feel like you have to go out and buy a set; it just means that you may have to use spanners to adjust on the water or on the beach, or have an optimal setting for all conditions (which I did for many years).

'Scott Anderson' foam battens are great for little guys. They have a nice flat exit, which is just what little guys want, i.e. a clean exhaust. I replace some of my top battens with stiffer ones before a windy race. This is obviously a bit of a gamble because if the conditions drop off once you are on the water you will struggle for power and suffer when reaching. On many occasions it is difficult to tell just how windy it really is from the beach and therefore careful judgement is required with your battens before you commit. When in doubt, stick with your 'normal conditions' battens.

Mast rake is another component that should be considered. Ben Deed carries more rake than most and does well in windy conditions for a little guy (65kg). The more rake you carry, the less the bows will bury downwind, which is obviously desirable. Upwind you are likely to point higher with more rake, which is also favourable. There are disadvantages in lighter weather but that is another story. Compare your rake with little guys who do well in windy conditions by sitting your boat next to theirs on the beach or ask them for their rake measurement (I am sure they won't mind). Experiment with your mast rake. However, if you do adjust it, you will need to leave enough distance between your mainsheet blocks so that you are able to sheet in really hard when it is windy. This type of 'fiddling' should be done well before a major regatta as altering your mast rake will upset the whole balance of your boat, and it is not the sort of thing you want to be playing with half way through a big regatta.

Before The Start

One of my golden rules is to **take it easy before the start**; there is no benefit in going for a swim or breaking a mast before the race begins. It could be a long hard race so preserve yourself and protect your boat. Keep away from others; boat handling is more difficult in windy conditions because everything happens more quickly and the seas are usually larger.

This doesn't mean that you should sit at the boat end of the line, drifting around doing nothing. I like to try sailing at all angles to the wind just to get a feel for how the boat is reacting to the wind and waves. The first angle I try is upwind because that's the easiest and least dangerous. It allows me an initial adjustment of my lower shrouds and a feel for how much luff and foot tension I am going to need. I always sail hard off the line a few times, which includes a few tacks, as if I am racing. I don't do it for long because I am conscious of energy levels. One of the disadvantages for little guys is that they have to work harder upwind than big guys. This means that to be successful a little guy needs to be fit. So get to the local gym and start working on your fitness.

Tacking can be difficult in windy conditions. Plan ahead for your first leg and approach to the top mark, as normal. Keep your strategy fairly simple. Allow for the fact that tacking quickly can be prone to error due to the

large waves and being overpowered, which usually comes with strong winds.

Clear wind off the start line is still important, but not nearly as critical as for lighter airs. You will find that if your boat is set up well, and you are steering it properly, overtaking the majority of boats underneath or over the top will be possible. Try to get a nice quiet little spot on the line away from the fast boats. This is mostly impossible with the high level of enthusiasm within our fleet at big regattas, but nevertheless try anyway. There always seems to be a fast boat in your way somewhere ...Bugger!

You Have Started

Once you have started, a second golden rule of mine applies. That is, **concentrate on fighting the conditions first, and then worry about your competitors as a second aspect**. This rule only applies in extreme conditions when most of your concentration is consumed by boat handling. If you can get around the course in one piece on a 'big day' you will usually end up with a reasonable position due to the usual high attrition rate.



You should never be fighting your boat; let it do the work; tame the beast! If you are fighting with your boat, then you haven't got it set up right for the conditions. There are a number of things which could be wrong and each boat would need to be considered separately. It is

most likely to involve the degree of fullness in the rig. This is why you see some smaller sailors going really well in light to medium conditions who just fall away when it is windy. Their boat is likely to be set up with too much power. It could also be that you are trying to point too high, with your traveller in near the centre. This is not-on in windy weather, especially when the waves are large. You end up heeling too much and going sideways rather than forwards. Keep your speed up and let your foils do their job.

You should be sheeting on really hard with your traveller out as far as required to keep your boat flat. Even with your traveller out 30-40cm it doesn't appear to effect height performance. The harder it blows, the harder your main should be sheeted. In contrast, some skippers sail fast by bringing their traveller in and letting the leach twist, i.e. releasing sheet tension. I have tried this but definitely did not like it. By all means try it yourself.

I use an Irwin radial sail. There are currently sailors across the weight range (50-100kgs) using the Irwin radial and these guys have plenty of speed around the course. The Irwin sail is reasonably full, which makes it suitable for larger guys but it also flattens out easily for the little guys like myself. When sheeted really tight in windy conditions, my sail flattens out nicely and the leach opens up to provide a clean exhaust. On many occasions I have had my mainsheet out to the toestraps (about 40cm from the centre) and have still maintained the same height and speed as a 95-100kg sailor using another brand of sail with their traveller set close to the centre. My sail is very sensitive to sheet tension. The harder it is sheeted the more the power is killed, which is just what you want when it is windy. I don't use as much luff tension as some. My system is only 6:1, unlike others who have elaborate higher purchase systems; a solid armful in windy conditions does the job by opening up the leach and preventing the maximum draft position from slipping too far back. To maintain shape and power in the sail, bigger guys may use tighter lower shrouds, less luff tension, more shape in the foot, more rotation and less sheet tension compared to a little guy. Sail watching is nowhere near as important in windy conditions compared to lighter conditions. I like to keep my eyes out of the boat watching for pressure, waves, marks, competitors and anything else that might be relevant at the time.

I don't concern myself too much about hiking when it is windy. I am not a strong hiker at the best of times, but when it is windy I feel it is less important. I would rather put my energy into boat handling. I believe there is more to be gained by concentrating on this aspect. Once you become fatigued, you are history; you start losing concentration and focus on surviving rather than tactics and sailing fast. The fitter you are, the more you can foot off and drive hard. As soon as a skipper becomes fatigued, the first thing he or she tends to do is point higher. It is easier and more comfortable to sail this way, but it's really slow.

Downwind - Reaching

Steering is the most important aspect of downhill sailing when it is blowing. You must be concentrating 100% of the time on your steering; I cannot emphasise this point enough. You need to be steering in response to the amount of wind pressure as well as the waves. Generally it is too difficult to look behind you for the gusts because everything is happening pretty quickly up front, and you know the wind is there waiting to pound you anyway. When it is really windy you should almost be anticipating what is going to happen and steer accordingly before it actually happens.

I position myself right over the back beam. If you are tired from hiking upwind, then just sit over the back beam on the side of the hull. It is more important to get your weight aft as opposed to over the windward side. Make sure you are comfortable and stable because it could be a wild ride. Avoid at all costs sticking the nose in. When this occurs it puts all sorts of additional pressure on your boat, particularly the rig. It also drastically slows you down, and we don't want that do we?

Sometimes, while broad reaching, it may be too windy to sail directly to a wing mark. Don't be put off by this; simply sail as low as you can without sticking a bow in. When you have gone far enough to run down to the mark, hopefully there will be a slight lull in the breeze so you can bear off (good to say a little prayer about this time) and from this point you can sail by the lee to de-power. Sailing on a broad reach is where the big guys come unstuck at times; they just point the boat in the direction of the mark and go for it. In many cases, due to their bulk of weight on the back beam, the boat doesn't nosedive but instead the mast gives way. This obviously means they are out of the race. In contrast, a little guy who doesn't steer accurately is more likely to cartwheel, but the boat usually lives to fight on.

Vang tension should be on tight while reaching. In fact, when I sail windy races I just leave it pulled on hard all the way around the course. I use an 8:1 ratio system with double ends tied to the shrouds. I have used a 12:1 system in the past which was easier to pull on but it was only a single tail system. My 8:1 system may lack some purchase, but it is really handy in medium conditions for adjusting the rotation while you are hiking.

I release my luff tension and sail foot marginally only if the conditions allow; mostly I don't bother. This is more pertinent for the larger guys. If there appears to be a significant lull, I may let the foot go half way. Often what happens is you let bits and pieces go when the wind drops a tad and then a wall of wind hits you that lasts for half the leg; then you end up grossly overpowered and you lose time trying to control the boat. In contrast, if you are de-powered when the pressure hits, then you can concentrate on getting the most out of the extra pressure by going fast with a flat rig. Make sure you can handle the boat if you power up.

Forget your leach line; that's the last thing you want when it's windy.

Get your centreboards up (particularly the leeward one) before you bear away at the top mark. This will reduce the tendency to stick the nose in as you are bearing away. When it is time to put them down again, downhaul ropes would be handy (I imagine). I have been meaning to put these on for years now. If you are quick enough, you can use the heel of your foot to quickly bang the centreboard down (ouch!). There have been many times when I have tried to put the leeward board down and it has almost ended in tears. As a last resort you can always round the bottom mark with everything ready and then slam it down while you stop for a second or two. Obviously if someone is right behind you, this is an undesirable course of action.

Downwind - Running

If you want to de-power on a run, simply start sheeting in your main (sailing by the lee). The harder it blows, the more you sheet in. Sailing by the lee involves sailing square downwind with the sail sheeted in as far as you dare. I like to get the boom in to the end of the traveller (fairly tight) which normally proves to be sufficient. The objective is to de-power your rig by reducing the sail area presented to the angle of the wind. When you sheet in on a run the wind is flying past both sides of your sail (windward and leeward), backwards from the leach to the luff. By sheeting in you are also supporting the top of your mast with a tight leach. The lower forestays must be on firm to support the middle of the mast. Don't pull them on too tight, you just want to hold your mast straight. Sailing by the lee means that involuntary gybing is more likely.

As with broad reaching, steering is critical. It is like motor racing; once off the racing line you are in all sorts

of trouble. Steer up too high and you are fully powered up for a broad reach; consequently you're likely to experience a swim – if all goes well. If things don't go so well, then you could be spending some time in the backyard with unexpected repairs (major). It gets worse. If you steer too low, a gybe is inevitable. What happens then?...don't ask.

Try not to panic; do not let go of the mainsheet; attempt to keep the boat square to the wind by steering very precisely; keep your body weight as far back on the trampoline as possible and not too far to one side (you don't need to be on the hull). Again, the main thing is to concentrate on your steering. I like to use cassette tape on the forestays for steering. It is too dangerous to look at the mast top indicator because that tends to bring your head up to boom level. If you can master the steering and keep your cool, then the rest is fun.

Concluding Comments

The Paper Tiger can be sailed competitively by light weight sailors because it is a low powered and very stable boat. It also has a flexible mast that allows sail shape to be removed and the leach to open up, and it has a traveller which permits effective upwind de-powering.

Your mental approach to windy races is important. You should feel comfortable going really fast. In fact, to do well in windy conditions you probably need to really love going fast. Boat and personal energy preservation should always be on your mind, while at the same time you should be pushing the boat aggressively but sensibly. Trust your boat to hold together and as long as you don't make a mistake that puts extra strain on it, then the boat should make it around the course in one piece. Practice makes perfect. Learn to tame the beast, don't let it control you. Treat it mean and reap the rewards.



Drew Helmore – 1437 -'Bean'