

bruce rose on



## in variable wind strengths and angles

**There are many ways of gaining an advantage over your competition on the water but the ability to "change gears" in variable conditions in particular, but also at different angles of sailing, will arguably be one of the most beneficial to master and apply.**

If it's so beneficial, why do so many skippers not change gears when it's so easy?.....because it's also so easy not to! Actually there are probably many reasons, however I believe the main ones are, a lack of knowledge, systems that don't work properly and/or laziness.

How many times after a race have you been told by a helpful skipper that passed you by during the race, your sail looked too flat, too full, hooked, too twisted, your vang was rotated too much, not enough etc?

We participate in a "thinking person's sport". It's easy to sail but, until we learn how, it's hard to sail fast all the time, at all angles, in all conditions. That's why I love sailing. There is always something to learn!

Every wind and sea condition combination requires a slightly different sail shape, which should be achievable during racing via easy-to-access and operate controls. If they are not easy to access and operate then we are less likely to use them, especially when frequent use is required. Most of the following info will be wasted if the systems on your boat do not work really efficiently. For example, if you cannot adjust your outhaul in or out under full mainsheet tension then you need a better, more efficient purchase system.

When is the best time to change gears? Answer: whenever your close competitor has a distinct speed advantage!

### **Beating**

The time to start changing gears is 5-10 minutes before the start. Have a short sail upwind as close to the start gun as possible (preferably alongside of a known fast boat) and make changes so you will be as fast as possible when the gun goes. After settling in for a few minutes, re-evaluate. If you are as fast as everyone,

great. If not, don't wait for half the fleet to go by, change gears now!

Whether it be underpowered or overpowered, change now! I was reminded at the recent Internationals that the first few minutes after a start are critical in terms of keeping in touch with your main competition. The reason we sail around the course close to the same people week in week out is because we generally do similar things in similar conditions, we have similar boat speed, make a similar amount of right and wrong decisions etc. We may start further ahead or further behind at times but generally end up around the same people by the end of the race.

Upwind off the start it is better, in my opinion, to be slightly overpowered than underpowered in hull flying conditions. Just hike harder (while energy levels are high) and spring the mainsheet if necessary during gusts just until you have sailed clear of the boats around you. Then adjust downhaul to the point where it feels like the boat is sharing the work load, and now in clear air you can focus on feeling at one with your boat and focus on the right way to go!

Remember we are discussing changing gears in constantly changing wind strength. The moment, for example, that you feel underpowered because of a sustained wind pressure decrease for even just a few minutes, then power up the sail again to re-fly the hull. We all know how much faster we go when a hull is lifted. Overpowered for a few minutes? Increase downhaul again. And so on and so on. If you can anticipate the changes coming, even better! Remember to also adjust the foot as required to keep an even depth all the way up and down the sail.

Many boat lengths can be gained by working smarter not harder! But if you work smarter AND harder you can win races!

To be able to make these frequent downhaul adjustments without having to let off the vang and mainsheet, it is best to have either a fixed gooseneck or a stopper to restrict the gooseneck, which is what I use. Place the stopper so that the luff is able to wrinkle up slightly with the gooseneck at its lowest, allowing you to power the sail fully even under full mainsheet tension.

Also, some incremented marks on the mast are useful so you can quickly and accurately adjust the Cunningham to the correct position. How do you know the correct position? By doing some training sailing and playing with settings of course, then marking the mast, outhaul ropes etc with a marker pen ☺

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Remember that the focus should be on constantly keeping a hull flying and accelerating forward as opposed to the constant ups and downs from being overpowered!

## Running

Running is quite simple. As I did in the windy stuff at the Internationals, I constantly play the front lower stays. When I think I can make a gain and it's safe (debatable) I let them off and fly, if I'm feeling vulnerable or there is no real gain to be made, I sail more conservatively and pull them on to protect my mast and position! Again, if required, I will also constantly adjust downhaul and outhaul to power up or down depending on wind strength. At the Internationals in Wellington, we had breeze fluctuating from 12-18 knots. If you weren't changing gears as the breeze changed, you were missing the big gains to be had!

## Reaching

People often ask me "When is the best time on a reach to have the leech line on?" I simply answer, "When it works!" Experiment...that's what I did and still do. I now have it on in a wider range of wind strength than I did years ago. I let it off in very light breeze if it's obvious I'm creating too much drag and going slow. Also, in heavier breezes, I have it on until I know I can't stop the nose from burying. My goal is to fly a hull more often with better speed than anyone else.

Downhaul and outhaul play a vital role again in fluctuating breeze. So don't hesitate or procrastinate, pull everything on or let everything off as soon as a change in wind pressure is obvious and sustained even if it's only for several minutes. Remember your body position too. If we are to be considered truly at one with the boat, then we also are a part of the "gear changing" process. If, after powering up, you still can't lift a hull, move your body forward and to leeward as far as it takes to get the hull out. Then keep it balanced by constantly moving your weight, in and out, forward and back, while simultaneously working the mainsheet and steering, working the apparent wind as required to keep the hull out and driving forwards fast!! Easy ☺

On a very broad reach (bordering on a run angle), along with everything else above, I will also allow the mast to invert/pop backwards and forwards, up to 1/2 or 2/3 the

way (restricted by the front lowers) of its own free will (automatic gear changing ☺). This seems to still allow flow over the sail at a very difficult angle and is especially beneficial when working a great swell, allowing rapid changes of course and reverse surfing of the waves. A great way to sail fast and deep to the mark!

Finally, remember the mast spanner in all of this. As you adjust Cunningham and in turn mainsheet tension, your rotation will also need to be constantly adjusted to compensate.



The **front adjustable lowers** can also play an important role. Make sure, as part of your housekeeping, you get into the habit of taking up the slack of the lowers when sailing upwind so when springing your mainsheet during gusts the mast bend will be retained and will help keep the rig stable with better flow over the sail. The main advantage, however, is on an off the traveler reach, the mast will again retain its pre-bent shape, which will allow for nice flow over the sail. But remember, as mentioned earlier, to allow the mast to do its own thing when the reach becomes very, very broad and is bordering on becoming a run! Also remember, if you ease the Cunningham you will also need to ease the front lowers very slightly to allow the mast to straighten and power up the sail again.

Well I reckon that's enough writing for now. Cup of tea time. I hope this helps improve your position in the fleet and makes sailing your PT more enjoyable. There is nothing quite like sailing a PT constantly in the sweet spot, no matter what the conditions!

Happy sailing

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