

Sailing upwind and downwind - The fundamentals of sailboat racing in light, medium, and heavy wind.

So we are here in this series to do at a minimum several things – one being maybe learning how to race for the first time, get better at racing, learn how to start of get better at it, tweak your boat speed a little bit, shifting gears as conditions change, learn the rules of the road, socialize, and etc.

Tonight we are supposed to discuss sailing upwind and downwind - The fundamentals of sailboat racing in light, medium and heavy air (wind).

That title is hard to define in exact terms, but to kick things off by default we'll start by trying to go a little bit faster, because by simply setting your boat up to go possibly faster most of things I just listed and others should get better to some degree. I say possibly because there are many, many, factors that are required to simply make the boat go faster.

One of the most important aspects of making the boat go faster is to be in control of the boat and not letting it control you. So you are not fighting each other. Example, too much vang prior to the start and daggerboard full down in overpowering conditions what could possibly happen.....having the boat adjusted properly through your entire time out sailing makes for a quicker, more responsive and more comfortable to sail boat. Which means you cannot just set it and leave it.

Here's how this can happen. We'll assume that the first leg of the course is closehauled which it is 99 % of the time. You go out and generally the first thing folks do when they get out near the starting line is sail upwind a bit to get the **soft adjustments** set so when you cross the starting line you hope to be going as fast as possible for the wind and conditions. But in the meantime you have to weave around the starting line at various points of sail not sailing very efficiently this is not very apparent until the wind picks up a bit.....with lots of weather helm because the daggerboard is all the way down in a closehauled setting, the boat trips over it, boom dragging in water when you jibe, the boat rounds way up and takes on water, you get tired faster while simply working too hard, and wetter than you wanted to be at this point of your sail. I've tipped over plenty of times before the start because of this in my laser and come close in other boats. So I paid attention, asked questions, experimented to not have this happen too often.

So when sailing around prior to the started after tuning the boat for the first leg of the course assuming the wind stays the same. I recommend easing off usually on

the vang a bit and pull the daggerboard up a bit in most conditions so you are in more control of the boat while not close hauled. This allows you to maneuver the boat easier with a more balanced helm and less tiring.

Definitions/jargon: (allot of the time these are used without explanation...)

- Air – wind (light, med, heavy, none) “no air”
- Windward – side of boat toward the wind or.
- Sailing upwind - sailing toward the wind.
- Top of the course – the end usually toward the wind or upwind.
- Bottom of the course - the end usually away from the wind or downwind.
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- This is one of the soft adjustments. As well as weight placement.
- Verses fixed adjustments like mast rake or rig tension, traveler, spreaders if have them (things that cannot be adjusted easily or often while on the water.

Shifting gears:

All of the sudden without warning the boat slows down.

- I must have done something to cause this...hmm not really.
- The conditions changed. Warning signs - how to spot them.
- You did however not react to the change in conditions. As a beginner Trial and error. As a seasoned sailor sometimes you can skip some of the trials but not all of them.
- Speed at which you react plays a part in this.
- Sitting and not trying anything to improve direction to new wind, better angle of sails to the wind, etc. will not improve your position, in fact sometime when you try things it may tell you it was the wrong thing to do.

All of the sudden without notice the boat speeds up.

- What are you looking for that caused this change. That can be put in the memory bank
- Warning signs – what are they.

Wind coming down the lake:

- You can be the potentially fastest boat in your class on the lake but if you are not lined up with the wind and taking advantage of what your sailing in it will not translate into the finish you might expect.
- Positioning to intercept it.
- Sailing to windward/upwind. How are boat ahead reacting to it. Should I tack when they tack or wait. Or should I have tacked before them.
- Sailing down wind or with the wind: how are boats behind reacting to it.....

Light wind

- Wind is most patchy
- Staying in or lining up with wind patches most important in the light stuff.
- Easier to stall the sails out.
- Maybe the most mentally challenging.

Medium wind:

- Usually the most relaxing to sail in
- Most boats are going about the same speed

Heavy wind

- Most physically demanding

Adjusting the boat to be in control.

- The sail out
- Prestart
- Just before start
- Midway between
- Approaching the windward mark
- Rounding the mark

- Just rounded windward mark
- Midway between
- Approaching the reaching mark
- Rounding the mark
- Just rounded the reaching mark
- Midway between
- Approaching the leeward (from reach or run)
- Rounding the mark
- Just rounded the leeward mark
- Midway between
- Approaching the finish
- At the finish
- The sail in

The list of hard and soft adjustment here