

Faster Reaching and Down wind Strategy - by Alan Gillard

Most people concentrate on upwind speed and trim but ask little about down wind and reaches.

SAIL TRIM

Close reaching.

Use your telltales the same as for upwind. (Leech tell-tales flying all the time). Use your kicker to set the overall fullness of the sail, let the outhaul off a little bit (but not too much), and let the downhaul off until the front of the sail starts to wrinkle (speed ripples). The mainsheet is then used to control the angle of the sail to ensure the tell-tales are all streaming. If you start to become overpowered on a close reach try pulling on more downhaul, this will have the effect of opening up the leech and so de-powering.

As you come off the wind more, ease the outhaul to power up the sail.

Broad reaching.

On a broad reach it's more difficult because the boom and sail are limited in how far out they can travel by the shrouds. Let the outhaul nearly right off (i.e. make the sail really full low down), and the downhaul fully off. The top tell-tales are the most important on a broad reach and the kicker is the most important control. On a broad reach the bottom of the sail is generally stalled because the boom can't go out far enough. But if you let your kicker off a bit, the sail will twist so you can still get some flow over the sail and keep the top telltales streaming properly. The trick here is to play the kicker while going downwind. Being a high aspect ratio sail, it is very sensitive to wind pressure. Thus, when a gust hits, the sail twists way too much (above the blue band) and you lose power, so you must pull the kicker on to control the twist. This is especially important in strong wind's, because if you let the sail twist too much it develops power in such a way that it will roll you in to windward! Conversely, when the gust dies, your sail will stall unless you let the kicker off again to let the sail twist and get the top flowing again. All of this need's to be co-ordinated with heading up a bit in the lulls, and bearing away in the puffs.

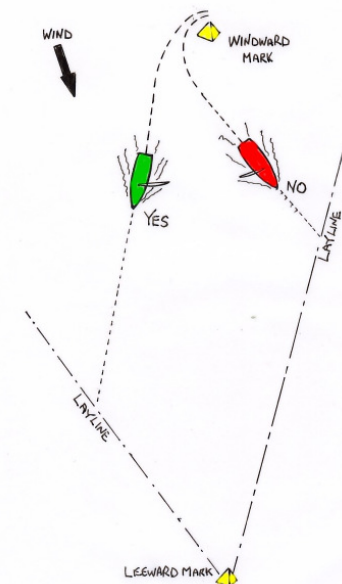
Dead down wind – TRIM AND STRATEGY

Streakers are just not great at going dead down wind. The boom will not go square enough to the wind, the shrouds being to far aft restricting the sail and boom. Letting the kicker off as much as you dare helps, but the sail opens up too much loosing power, tweaking the kicker again then reduces your ability to obtain that dead downwind angle. The answer is to broad reach more and put in the occasional gybe. Streaker sailing down wind is a bit like sailing an Asymmetric spinnaker boat (RS200, 400 etc.).

There are some good rules of thumb, which apply as much to an Asymmetric spinnaker boat as it does for us, we can use these to go faster as well.

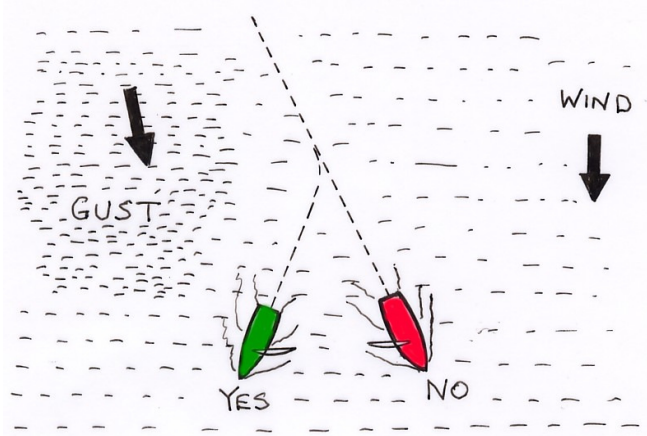
1. Sail the longer gybe first.

As with beating up wind there are lay-lines, which become in racing terms a strategic dead end. As the longer tack to the next windward mark is the first tack you should take. It's the same for downwind sailing, take the longer gybe first, it's the one that you will spend more time on during the run. It means that you will stay closer to the middle of the course. But also remember the wind shifts downwind as well as up and by staying to the middle of the course you will be in a better position to take advantage of any future wind shift.



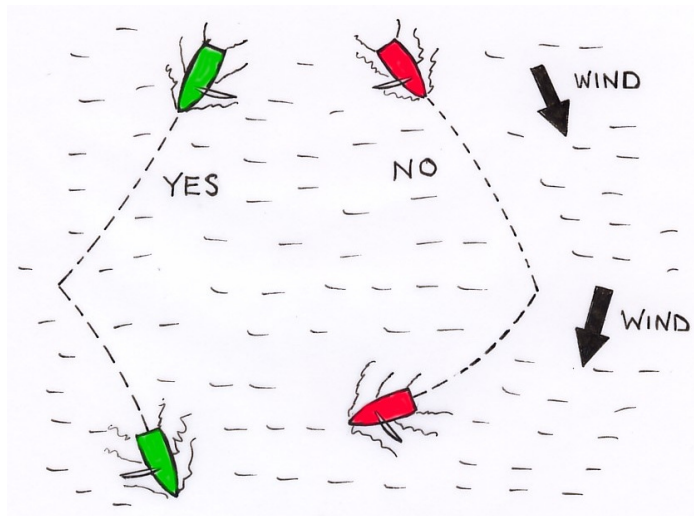
2. Pressure before shifts.

It's always better to have more pressure when you are racing downwind. The boat goes faster and you are able to run deeper and so sail closer to the angle for the leeward mark. So go for pressure first downwind, especially in light winds.



3. Sail away from the next shift.

Upwind you always gain from sailing towards the next shift (header). It's a bit like snakes and ladders, you just climb up to the next rung on the ladder i.e. header. On a run, the opposite is true; you should always sail away from the next shift so you get a lower ladder rung. The overriding factor being a gust, more pressure. A boat planning is so much faster.



4. Gybe on the lifts.

We all know that tacking on the headers upwind is right. Downwind it is the opposite we need to gybe on the lifts. It might feel strange and it is certainly harder to spot on the water, but if the wind was coming over your aft corner and suddenly it's coming over your transom its time to gybe. By staying on the headed gybe you can sail lower and closer to the leeward mark. The Asymmetric boats see the shift because the spinnaker collapses as the mainsail then blankets the spinnaker, so the RS200 would then gybe to get his 3 sails filling again.