

Subject: Heavy wind techniques for a laser?

Running on a Laser.

It's a hard boat for most people to control in such situations; I was out last Sunday between the Heads with a group of 7 including Australia's 1 & 2 juniors, the guys who finished 4 & 14th at the Olympics, and a couple of other experienced guys.

On one run alone (albeit in big chop) over half the group capsized.

When running square in a breeze, three-time world champion Glenn Bourke's book advises to run by the lee, with the mainsheet trimmed in so that the boom is at 80 degrees to the centreline.

In this position, the wind flows from the leach to the luff (reverse of normal) and the boat steadies right down.

The boat may try to roll to windward still, but less than when running Dead Square or a little bit above it.

Of course you've got to watch out for the accidental gybe but you have to go a surprisingly long way by the lee before it's a problem.

I think the centreboard should be about 1 foot up, personally, for easiest control, and this is also the position shown in Glenn's book.

If the boat does start to roll to windward, and you feel there's no chance of stopping a capsize, you can try a "Bennet's Bath".

Simply take a deep breath, make sure you're locked into the hiking straps, and keep hiking and sailing as the boat rolls to windward and your body hits the water.

The boat will roll in to windward, maybe 45 degrees or more, but you will be still in position, albeit under a bit of water.

This is the idea! Your weight will be supported by the water and it won't be on the windward gunwhale, where it would be if you were sailing normally.

As well as reducing the weight on the windward side, this move will bring the boat's course around a bit closer to a reach, because of the drag of your body in the water.

This change in wind angle will further reduce the tendency to roll in to windward.

Finally, the drag will slow the boat down and this will increase the apparent wind, which will increase the force heeling the boat to leeward.

The boat will sit back upright, you'll pop out of the water still in position, and off you'll go again - in theory and (sometimes) in practise.

Try to haul some mainsheet in while you're underwater! It doesn't always work but it's fun and always better than the alternative (a capsize to windward at speed).

Sail settings for a strong wind- pull the Cunningham as hard as you can upwind and maybe ease it downwind but more to avoid stretching the sail than anything else.

DON'T pull the outhaul out tight- you need some power low down so leave the deepest part of the sail maybe 4" from the boom.

Use heaps of vang to make the boat faster and easier (in most ways).

A standard setting for medium to strong winds is to pull the mainsheet in tight so that the boom block is touching the traveller block (so called "block to block" position) and then pull the vang as hard as you can.

Once the vang is cleated, off course, ease the mainsheet as necessary to keep the boat flat again.

This much vang can make tacking harder- you have to keep the boat flat and be quite aggressive and fast to get it through the eye of the wind.

Otherwise, the tight leach that the vang gives the mainsail will force the boat back into irons.

The tighter vang will help your downwind control because it stops the leach twisting off in a way that drives the boat into a windward capsize.

Generally, before bearing away in a strong wind one takes the mainsheet to the block to block position and then eases the vang until it is just tight.

Laser sailors used to pull the vang on even harder (“super vanging”) but I understand this is less common these days.

I’m way to light for the big rig so I have to still super vang and it makes a big difference if you, too, are a 5’7” 70 kg guy trying to sail a boat with a minimum weight of 78 kg.

To super vang one pulls the mainsheet in block to block, grabs the vang with the forward hand, and then pushes with a foot on the mainsheet where it runs between the deck block and the boom block.

This bends the boom and allows you to get a few extra inches of tension on the vang; whether it helps depends on how well you can tack (more vang = harder tacking) and what you weigh/how hard you hike.

Radial rigs, by the way, need less vang and Cunningham.

Gybing a Laser in a breeze is difficult.

I’ve always been at my best in gybes, in everything from sailboards to ocean racers, and I was shocked at how hard I found it in a Laser.

I finally went up to my brother’s place (he’s a former state champion in standard rigs) and he showed me the method that had been passed down to him.

Basically, one can’t use the rudder to gybe, but must steer by rolling the boat.

This is of course the best way to gybe any boat but what I (and many others) hadn’t realised is how vital it is in a Laser, simply to survive.

Go into the gybe fast, because the faster you go through it the less wind you feel.

The easiest way is when surfing down a wave or coming out of a gust.

My procedure is to ease mainsheet, maybe 8” to 18” (it varies according to conditions so one has to practise and develop feel) while still hiking.

This rolls the boat to windward a few degrees (assuming it’s being sailed flat as it must be at all times) and therefore turns the boat downwind, without the rudder being used to slow the boat down.

The amount of windward heel varies with skill, wind strength, and how tight you want the turn to be.

When racing in light airs one can heel so far that the boom hits the water as it flicks over- this turns the boat quickly and fans the sail as you bring the boat back up to vertical.

In strong winds, one is probably heeling the boat about 10 degrees to windward.

As the boat bears away, one can bend at the waist and move weight into the boat, while preparing to throw oneself across at the right moment.

Because you haven’t sheeted in (assuming you enter the gybe from a $\frac{3}{4}$ - the deeper the angle, the harder the gybe, and I think just about everyone comes up to a $\frac{3}{4}$ before gybing in a breeze) or used the rudder the boat should still be planing, heading directly downwind, so there is very little apparent wind.

As the boat comes around through the gybe, still steering by the heel of the hull, feel for the weight coming off the mainsheet as the boom starts to flick over.

As the weight comes off, tug the mainsheet about 10 cm.

This will put a bit of tension on the mainsheet at the right time to flick it over the corner of the transom.

Fail to do this at the right time, and the mainsheet will normally catch on the transom, the boom won’t be eased far enough on the new tack, and you’ll go in to leeward.

Try to pull in much more than about 15-20 cm and the mainsheet may flick around the end of the boom, where it will snag.

If just one section of the mainsheet catches on the corner of the transom, a sharp hard tug of about 30 cm will normally clear it.

As the boom comes over one must be diving for the “new” windward side, quickly.

Be ready to ease mainsheet as the sail catches the wind on the new gybe- flat is fast and fast is efficient and controllable.

Heel makes the boat slower and harder or impossible to control.

Because the boat is moving fast there will be less force in the mainsail as it slams across and because the boat is flat the boom won't hit the water and trip the boat in.

I think that the whole key is rolling the boat through the gybe rather than steering it through, which will slow the boat and increase the apparent wind and hence all the forces acting on the boat.

The force on the rudder through this gybe is so light that when practising I often don't hold the tiller at all, merely let it sit on top of the area between my thumb and forefinger so that I can catch it later.

You also need commitment, because a fast gybe on the plane is easy, a slow gybe when you've slowed down and dropped off the plane is hard.

Don't make the mistake I made and think that when people say, ”get committed” they mean use lots of rudder! I never would, normally, but I did in a Laser for this reason and it really made life hard.

The move takes some practise, and the best thing is to rehearse mentally on shore, break the move into separate pieces, and go out and throw the boat around.

Every time you fail, sit back for a second and analyse your timing and the amount of boat roll, body movement, etc.

A few sessions of spending 1/2 an hour or so concentrating on practising one manoeuvre will make your sailing much better and easier than years flogging around the bay.

This advice may not be perfect but I think I should say, to support it, that it comes from guys who have won state championships in Radial and Standard Laser fleets against sailors ranked from 1,2,4 etc, in the world.