

Basic Running Downwind

This article was written by Wayne Eager.

It was extracted from the 1997 Paper Tiger Catamaran Tuning Manual.

Let us begin immediately after rounding the windward buoy. The first thing I do is set the sail for the appropriate wind conditions. In light winds, I try to fill the sail as much as I can by easing downhaul and outhaul. The front forestay should be loose to allow full reverse bend of the mast. I don't use much vang in light conditions because it tends to curl the leech to windward. Remember, the main aim when running downwind is to present as much sail at 90° to the wind direction as possible (except in strong winds).

In medium strength winds, the only difference to my sail setting is to tighten the vang to keep the leech straight. In strong winds, the downhaul, outhaul, vang and forestay remain tight. In strong winds, the last thing you want is reverse mast bend. If the wind is very strong, I sometimes pull some mainsheet in to reduce the effective sail area, but be careful not to "run by the lee", or you may unexpectedly gybe.

Now that the sail is set, it's time to pull both centreboards up, but make sure you don't pull them up too far. The bottom of the centrecase (the slot) should be filled with some board. Use a marker pen to mark the correct height position. I usually lift one rudder blade in light and medium strength wind. In order to keep drag to a minimum, your position on the boat can make a significant difference. I try to sit in the middle of the boat and well forward so that the transoms are not dragging along and creating turbulence in the water. Of course in strong winds, you must sit as far back on the boat as possible to prevent nose-diving.

At this point many skippers, including myself, tend to have a little sleep, taking advantage of the easy sailing position. But the facts are that the run is subject to the same wind shifts, gusts and tidal influences as the other legs of the course. Generally there is very little difference in boat speed when running downwind so, if you keep your eyes open, you can overtake other boats. A masthead telltale is the most effective way of determining any changes in wind direction when on the run. You can buy mast head wind vanes, however a piece of cassette tape on some galvanised wire is just as effective. Watch for wind lines (gusts along the water) coming from behind as well as to the sides of you. It may be prudent to gybe across or round up a little to get yourself into a wind line. Be aware of the relative speeds of other boats. They may be in stronger breeze or their sail may be set in a better configuration than yours.

When following other boats, you can slow them down by keeping them in your wind shadow. This is most effective in light winds. The fastest way downwind on a Paper Tiger is to run a few degrees off the wind direction, so don't get carried away in shadowing other boats and then find yourself broad reaching. All the other boats that are running close to the wind direction will generally overtake you.

In medium wind conditions, surfing the waves can also be a great advantage. Shifting your weight forward on the crest of a wave may be just enough to get the boat surfing.

Conclusions:

- Not everyone will agree with my sail settings, so experiment with your own rig.
- Install a masthead telltale on your boat.
- Watch out for changing wind conditions, wind shifts and what other skippers are doing.
- Use shadowing to your advantage.
- Practice surfing waves.
- Don't fall asleep, and enjoy yourself

For assistance with your Paper Tiger Catamaran, or suggestions for this or other Guides, please contact the
Paper Tiger Catamaran International Association:
David Stumbles (Secretary) **+61 400 476 449** or **ptcia@papertigercatamaran.org**
www.papertigercatamaran.org