

## Top Tip #5

Thanks once again to Tim Hore for this month's top tip, which follows on from last month's subject entitled 'Keeping it Flat'.

### Downwind Trim

Building on last month's tip about keeping the boat flat, this one looks at the ONLY exception. When sailing on a dead run it is better to heel the boat 10-15 degrees to windward. Takes some practice and nerves when windy! Below is an extract taken from the Solo web forum on the topic.

Sailing dead downwind with the sail fully out introduces a turning moment from the rig. To correct this you can either use the rudder which introduces drag or introduce a slight windward heel to the boat.

Tipping the boat (to windward on this occasion) causes the submerged hull form to become asymmetric which tends to turn the boat due to the roundness of the submerged chine. The sail being on the opposite side to this chine is tending to turn the boat the other way, so the two forces together cancel each other out. Tipping the rig over brings its centre of effort back towards the centre line of the hull (or beyond it if you tip far enough). In strong winds this adds to dynamic stability. The other major benefit is a reduction in wetted surface area. Theoretically this should have more benefit at low speeds, hence you see more accentuated tipping in light airs. Lifting the leeward quarter alone out of the water reduces a lot of wetted area. A word of caution, in heavy airs sheet in a bit as this changes the flow direction over the sail, the best thing is to experiment until you feel comfortable with it. Steve Cockerill's website at [Roostersailing.com](http://Roostersailing.com) is a good place to look for more.



*Geoff Carveth demonstrates the downwind technique at the Icicle Trophy*