

## HARBOUR RACING TIPS

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Chichester Harbour has a national reputation as an ideal but challenging venue for dinghy and dayboat racing. With over 4000 such boats based in the harbour and many more visitors, all seeking the elusive scent of victory, knowing what the tides are doing where and when holds the key to success. In the following pages, two of the harbours leading racing helmsmen, Ian Porter and Roger Palmer, both from HISC, give some clues on which way to go at the Southern end of the harbour. Roger's article sets the scene and Ian's puts some meat on the bones, they both put on the healthy disclaimer that none of the tips are infallible!

**Roger Palmer.** Roger has raced on the harbour for nearly 40 years, a past Commodore of HISC and a Flying Fifteen sailor of repute. Winner of many open meetings, Fed Week on a number of occasions and Cowes Dinghy Week.

### *Tidal Tactics in Chichester Harbour - A Scene Setter*

As Chichester Harbour has an enormous area to fill and to drain the tidal flows are substantial, reaching 5.3 knots on Spring ebb in the entrance and up to 4 knots in the Itchenor Reach and Mill Rythe area of the Emsworth Channel. For this reason particular attention needs to be paid to these flows while racing in the Harbour especially at times of Spring tides. These flows need to be used to maximum advantage to gain a competitive edge.

In the simplest case it pays to stay in the tide when it is favourable and keep out of it when it is flowing against the line of travel. This, however, is only part of the story. Competitive benefit is obtained by using the angles of the tidal flow to push the boat sideways to achieve a given direction; these lee-bow and weather-bow effects determine the result of a lot of Harbour racing. Anyone sailing in the Harbour at high tide should therefore have a good knowledge of the contours and the currents, both in strength and direction, that operate under the boat.

Other considerations that play an important part include the areas of lesser tide where, during

"Federation Week" 98





Federation Week for instance, the Spring flood can best be avoided to secure the vital early rounding of the weather mark on the Winner bank. This includes the use of the East Head spit as a tidal obstruction or the alternative of the Stocker bank and the avoidance of the high water channel over the Winner near NE Winner buoy and the main flows past Hayling Island Sailing Club and in the marked navigation channels.

Another complication is added by the existence of counter currents (or eddies) that run opposite to the main flow in various parts of the Harbour. These run at times of maximum flow and exist between the green channel buoys Mid Winner, North Winner and Northwest Winner, north and west of Hayling Island Sailing Club (the Mengham eddy) and along the southeast corner of Pilsley Island. If used correctly these currents can be used to great tactical effect.

The successful helmsman will use all the effects noted above. The difficulty comes with the choice and the importance of each of these at various states of the tide and as the wind strength and direction changes.

**Ian Porter.** Ian admits to sailing in the Harbour for over 30 years, he has won the Osprey Nationals four times, the Wayfarer Nationals seven, the Wayfarer Worlds three times and he has been the RS 400 Masters National Champion. Currently doing depth research of the harbour bottom with a B14 mast.

### **Tidal Tactics in Chichester Harbour - *Some Meat on the Bones***

Racing in Chichester Harbour is most influenced by the tide and one may regard the tide being the master and the wind the slave most of the time.

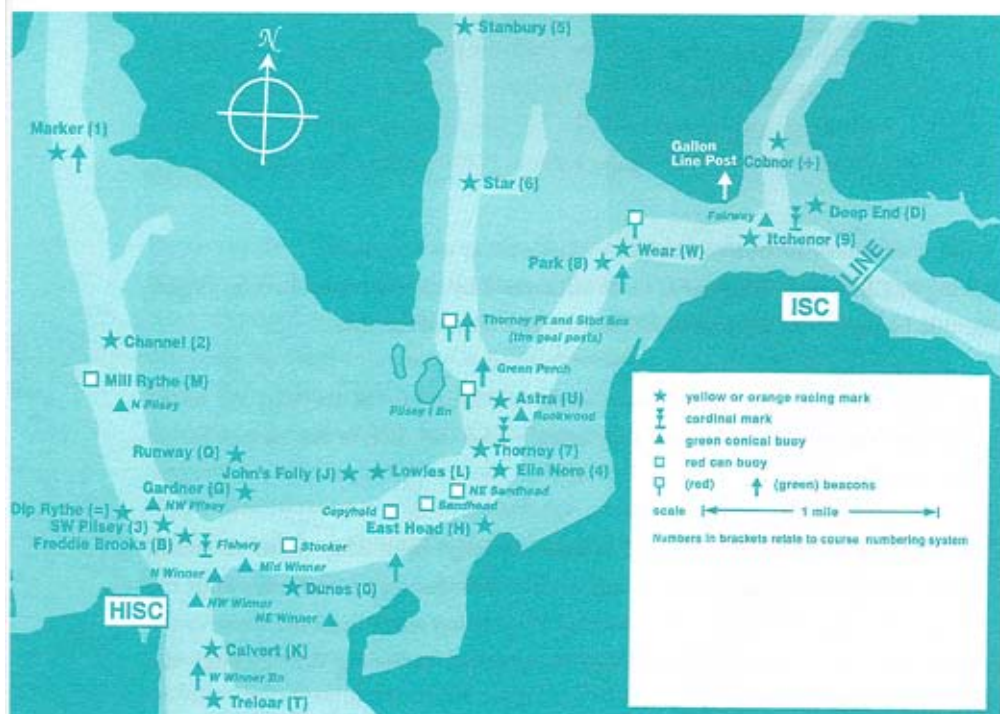


Unusually there are two tidal affects at the southern end of the harbour on an incoming tide which can benefit dramatically and can dictate the tactics for an entire leg of a course.

The area just off East Head shore has seen a large back eddy occur in recent seasons. It appears to start several hours after low water and continues until the tide starts to ebb. It is marked by a band of West going water from the shore to the post marking the shore line and flows to meet the incoming tide through the North East Winner channel.

Thus on a southerly or south westerly tacking along this shore line on a belt of favourable tide can reap dividends to marks such as Dunes or Sandy off the Hayling Island Sailing Club. Likewise a similar effect takes place off the HISC where the incoming tide flows around in an anti-clockwise plughole-type stream of water. This gives rise to a Easterly tidal flow immediately along the Northern shore extending southwards towards the concrete slip adjacent to the car park at the Club. This particular tidal stream can dictate the tactics to Sandy (obviously) or even Treloar and Calvert.

Tactics and tidal effects on ebbing tides are fairly straightforward and very predictable. The tide turns first in the shallows so it is always important to use the tidal predications as a rough guide as opposed to scientific fact. Likewise the presence of a low pressure system can hold the tide up longer and it can also give rise to higher than predicted tides. Once the tide has set across the harbour it obviously flows more strongly in the channels than it will flow in the shallows. The tide also turns first at the top of the harbour and is noticeable in that it flows out earlier at East Head than it does around the Hayling Island moorings.



Whilst the Channel markers and navigation marks can guide one as to the whereabouts of the deep water they are not necessarily a map of the entire strongest areas of water movements. One has only to look at the area from East Head to the Winner bank to observe this. Whilst the channel would indicate water flowing broadly east or west there are no clues to the very strong tidal flow to the south and north through the North East Winner cut. This can appear similar in strength to the main tide circulating between the Winner bank and Hayling Island. Likewise to the north of this same area one would believe that the tide splits at Fishery flowing to the east towards Chichester and the north towards Emsworth. However, it flows north east on the incoming tide (from half tide onwards) at Fishery heading towards John's Folly. Whilst the main tide flows down the channel the area between these two tidal effects is marked by the Sandhead sand bar.

Again the exact angle and path of these streams is essential to maximise tactical advantages. For example, if one has to sail to Sandy from the Southern shore of Thorney Island on a south westerly wind on an incoming tide, it will be evident that one should be able to obtain a lee bow (the tide on the lee side of the keel or centreboard assists in lifting the boat to windward). If one tacks too early at a heading that takes you below Fishery the tide will be on the wrong side of the centreline and will take you away from the target mark. If one tacks too late the tide will take you onto the Hayling shore and you will either sail a longer distance or have to bear off into the incoming tide. The perfect tack will take you close to SW Pilesey, lee bow you across to the southern most mooring where the aforementioned back eddy will take you rocketing up to the mark. Thus you will spend much of the leg getting an adverse tide to assist you on this leg.

Another tidal detail that can be seen in the Southern-most part of the harbour is evident around Treloar mark. Again from around half tide an unusual wave form adjacent to the West Winner Beacon marks a tidal stream which appears to flow from the Witterings meeting the main harbour tide. This flow is to the west and can result in one over-standing Treloar mark or being forced out into the main tide. This information needs to be clear when one is rounding marks in order to work the best position and path to follow.

