

HARBOUR RACING TIPS

by Roger Wickens

Roger purchased 'Danny', a Solent Sunbeam found lying in a Cornish farm yard in 1991. Since then 'Danny' has been top Solent Sunbeam in five of the last seven years. He also campaigns his International Etchells at World Championship and major regattas.

Last year Roger Palmer and Ian Porter drew attention to the tidal streams and eddies at the southern end of the Harbour. This year John Davis, the Harbourmaster, has asked for my thoughts on one of the classic beats within the Harbour, from Wear or Park racing marks south-west towards Ella Nore, Dunes or SW Pilsey, against a flood tide. I sail a Solent Sunbeam, which draws 3'9" when upright and so inevitably the characteristics of my boat to some extent affect my decisions. For example, short tacking along a shoreline carries the penalty of losing way on each tack.

Yacht racing is a fascinating sport and has rightly been likened to a game of chess on water. This is doubly true when sailing in streams and yet my first observation is not to allow oneself to be fixated by the tidal stream. Yachts need wind for propulsion and quite often there is more wind to be had in the middle of the channel than at the sides. The water along the banks may already be full of other yachts, resulting in dirty wind along the shoreline, or there may be more wind on one side or other of the Harbour, or it may be coming down the race course in bands. Inshore, the availability of wind to power our sails is of prime importance. As a rule of thumb if I have to choose between more wind or less adverse current, I elect for the wind.

However, if you consider the wind to be constant across the race course, the tidal stream matters greatly. To try to understand the flows and also to note the shallow spots, at the beginning of each season I spend an

hour or two at dead low water springs looking at the deep water channels and the changes to the sand banks.

The Harbour at very low water is fascinating. In places the deep water channels are revealed as flowing rivers, with steep cutaway banks. Usually of course, these banks are themselves covered. These channels are the primary arteries of the Harbour and knowledge of their location gives an insight into the movement of water within the Harbour.

At the start of a spring flood tide the water obviously has to flow within the deep water channels. It curls around the Winner Bank,

Roger sailing his Sunbeam 'Danny'





which incidently is extremely steep on its north side and plumbs to the deepest location in the Harbour and flows along the northern side of East Head. At this point one could moor a Sunbeam alongside the bank and step ashore! The water mass turns somewhat to port at the Ella Nore bend and is pushed further to port by the obstruction of the shallows marked by the Rookwood starboard hand navigation buoy and the attraction of being diverted up the Thorney Channel. It continues its flow up the Chichester Channel, always somewhat north/port of centre, until turned again, this time to starboard by the bend before Chalkdock Beacon. The shallows marked by Chalkdock Beacon constrain the main water mass to the northern side, until the direction of flow splits at the Bosham Channel.

As the flood tide builds I form a mental picture of the water flowing through these now invisible channels. Where the channels bend the fastest current is at the outside of each bend. Where the water is obstructed by shallows or banks it also flows faster in the deep water nearest the edge of the obstruction. With this information you would expect to find faster currents at East Head mark, Rookwood buoy and at Park and Wear marks and in my experience one does. Within two hours or so of high water the effect of the main channels on the movement of the water mass is not so marked. The water can flow relatively easily

over the former shallow areas and a huge quantity flows from the sea through the channel by Dunes mark and north-east past the Stocker's Sands eastern edge. Now the former shallow areas east of Stocker's Sands acquire their own fast currents and conversely the water flow at Ella Nore corner slackens a little. Picture this truly vast mass of water, weighing a ton every cubic metre, moving at say three knots north-eastwards from the sea. It has huge inertia and is resistant to change of course. The main channels, marked by those rivers visible at very low tides, no longer exert the same influence over the direction taken by the water mass.

This feature of the currents within the Harbour explains why it usually pays to stick to the north bank when beating against the stream from Park to Dunes, unless within an hour or two of high water when sometimes the southern shore is the better route. From then onwards, the adverse stream by Ella Nore point is slacker and working down the shallows of the southern shore, then skirting the edge of East Head beach with its slacker stream and early outgoing eddy can pay.

On the north bank one can take advantage of the slacker current around Astra mark, caused by the shallows and split of the incoming water mass between the Chichester and Thorney Channels, slide across the Thorney Channel to skirt Pilsley

Island and cut across the shallows of a now covered Stocker's Sands.

Which route proves to be the faster so often depends upon the wind strength and direction. Sometimes it allows a lee bow effect across a current to advantage. Feed this possibility into the equation as well as the likelihood or otherwise of the wind shifting as the race progresses. To add to the options sometimes one can combine the two routes, for example by cutting across to the East Head beach from Pilsey Island. This is where knowledge of the clearing transit marking the eastern edge of the Stocker's Sands is needed and is especially necessary when the Stocker's Sands itself does not have enough water over it.

Learning the location of the sand banks and shallow spots at various states of the tide is mostly gained the hard way, by going aground! My early season survey takes in two key pilotage matters; the location of John's Folly channel north of the Stocker's Sands, together with information as to its depth relative to the highest point of the Sand is vital. I establish the location of this channel relative to the marks, note transits on the shore and take soundings. Generally,

the channel follows the line between Lowles and John's Folly marks and is navigable by a Sunbeam when the Sand is uncovered by a foot in height. Anymore and the risk has to be worth it!

Secondly, at all states of the tide it is very useful to know the shape and location of the eastern edge of the Stocker's Sands. There was a transit from Copyhold to the Lifeboat Station on Hayling Island which marked the edge. Lately the Sand has acquired east going fingers which can easily entrap a keelboat. Very few Sunbeams have not at some time come to grief on this sandbank!

Which takes me back to the beginning; in our chosen sport nothing is ever certain. Even being in the lead carries the heightened risk of suddenly running aground and in doing so rapidly moving from first to last place! I am sure there is also an element of 'snakes and ladders' in our racing, as well as chess. I hope the thoughts set out above will help to reduce the 'chance' factor when trying to decide which route to take.

Roger Wickens