



by Roger Palmer

The change of tidal currents in the harbour is a fascinating one. It is a very subtle change. First comes the stand of the tide when tidal affairs are fairly static. Then there are areas of ebb while the tide is flooding in other parts of the harbour. First indications are the boats anchored on the western trot at Hayling nearest the Sailing Club (HISC): they swing to seaward in response to the Mengeham eddy. At East Head the moored boats start swinging. The crew of the boat needs to watch the flow over every mark and stake and then make sailing decisions based on the knowledge gained.

As the ebb gathers force the water flows off the immense area of inter-tidal shallows on either side of the channels, and combines with other such flows to form a massive movement of water draining the harbour. The ebb takes a shorter time than the flood and consequently the tidal flows are greater, reaching 5.3 knots in the harbour entrance near the Lifeboat station.

In 2004 an article was published in the Harbour News concerning the vital first

beat in conditions of flood tide. This year's contribution concerns sailing similar courses on the ebb tide. This advice applies to later legs of standard courses started on the last of the flood, and also for those years when the required tide times do not match the calendar window for the event.

In sailing with the ebb it is not enough just to stay in the channels and go with the flow. Indeed on the run the favourable flow takes the wind out of the sails and reduces the speed through the water. Tidal angles must be sought upwind and down to allow the lee-bow effects to speed your progress. It is the use of these angles that results in the success of much of this advice.

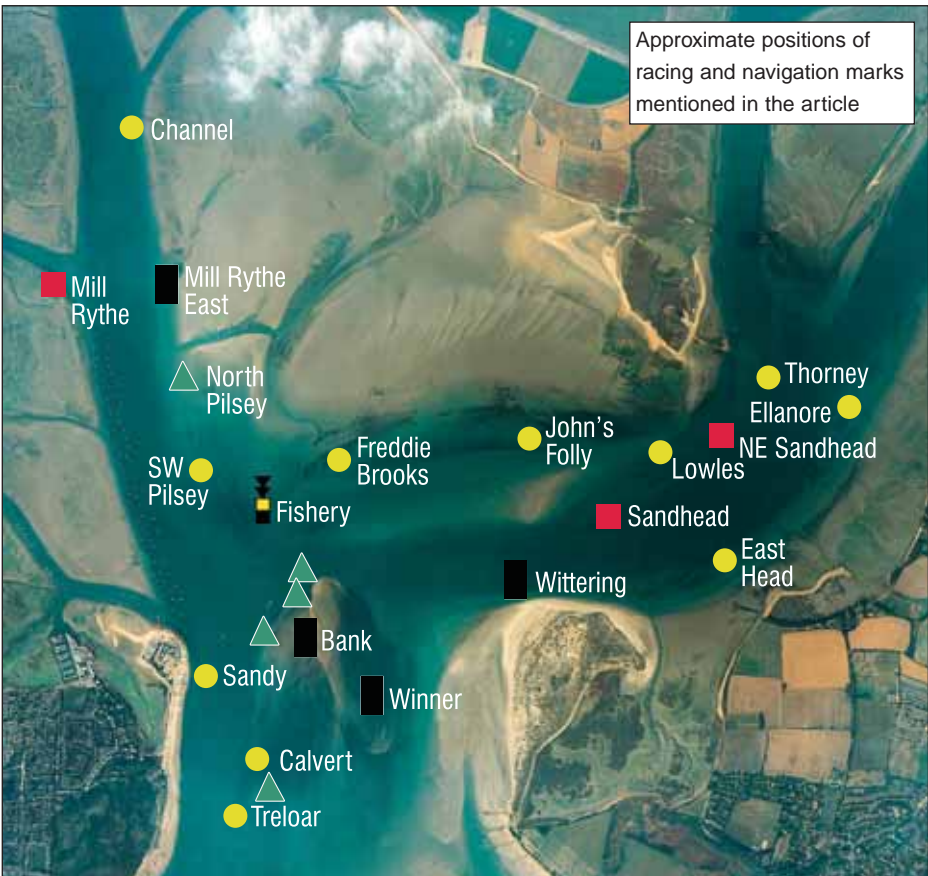
A strong caution to this year's advice is to watch the tidal height. Do not attempt any of the recommended courses if the height of water makes such a course hazardous with risk of grounding. Seagulls standing or even venerable Sunbeam Class keelboats aground are a very good indicator of insufficient depth of water for safe navigation!

## North North East Wind (350°)

This course will start near Treloar and beat to Channel buoy before reaching across the harbour to Lowles (the last of the twin buoys) and then to Calvert, back to Channel, to Thorney and to Calvert and up to Channel again. The beat is best undertaken by starboard tack to near the green Winner marks and then a port tack across the flow from Chichester with a good lee-bow and then over Pilsley Sands. With a north wind there is opportunity of profiting from the shifty nature and the approach to Channel should be from off the Pilsley Sands.

Reaching to Lowles it is important to stay high as the ebb will take the boat down below the rhumb line to Lowles. In Northerlies there is always more strength the more north you are so this is a further reason not to drop low. Lowles to Calvert involves a starboard reach with the same advice of keeping above the rhumb line to avoid getting swept too low and also avoiding being the last recipient of the occasional puffs of wind from above.

For the next beat from Calvert to Channel the relative tidal shelter of the Winner should be used before following the route over the Pilsley Sands to slacker water and ➤



*The crew needs to watch the flow over every mark and stake and then make sailing decisions based on that knowledge*



East Head mark. The best course is to go left from the start on starboard tack and use the relative protection of Pilsey Sands until the Sandhead area is reached before launching out into the current from the Chichester Channel to approach the East Head mark. The reach to Mill Rythe should be taken above the direct course line, as the tidal flow will attempt to take you down

thence to the north to approach the finish area at Channel from off the bank. Good judgement will be needed to decide when to attempt the tack into the tide to attain the finish: too early and you will be left tacking in strong tidal currents whilst too conservative an approach from a more northerly position risks competitors getting to the finish by a more direct route.

### **North East Wind (045°)**

This course will start near Treloar and have NE Sandhead as the first mark. It is recommended that an approach be made up the East Head shore using the shifts at the corner to provide the fastest route to the Sandhead area. A reach from NE Sandhead follows to Mill Rythe East, which should be taken above the direct line to counter the ebbing tide at the approach to the mark. After a gybe the reach to Treloar will be a straight-line sail before the windward leg to Sandhead, described above, is repeated.

### **East North East Wind (080°)**

In a wind just north of east the course will start near Sandy buoy, near the Hayling Club, and head across the harbour to

towards the entrance. The leg from Mill Rythe to Sandy is a straight one on port gybe. At Sandy a neat rounding is required, tacking on to starboard turning almost before the mark is reached to avoid the main ebb sweeping you down and letting other boats through the gap. The course to East Head will involve attaining the Pilsey sands near Fishery buoy and profiting by the use of the shelter to repeat the success of the first beat. This course is then repeated.

### **East South East Wind (110°)**

With the wind just south of east the start will be in the vicinity of North Pilsey buoy with the weather mark called Wittering positioned off the East Head beach. The best course will be to tack across the Pilsey Sands to the Lowles/John's Folly area before crossing the current at East Head to round the Wittering mark. The next leg, Sandy Point, is a run on port gybe, this should be taken directly with ebb. Then followed by a reach back to Channel against the outgoing tidal stream. As Channel is on the east side of the Emsworth Channel it is best to harden up on starboard after Sandy Point buoy

and steer for the Pilsley Sands. Once over the Sands the sheets can be eased and a port tack reach enjoyed up the shallows before bearing away for Channel buoy. There follows a windward leg over the sands to Wittering which should use the tidal shelter of the sands and avoid the ebb tides in the main channels. The course then repeats itself except for changing the SW Pilsley buoy for Sandy Point.

### South Wind (180°)

This course with a start on the Pilsley Sands has a weather mark over the Winner. The favoured course is to start on starboard tack and head for the westmost tip of East Head. At the tip of East Head, head out across the Winner towards the open sea. This course will give the best combination of a double lee-bow effect. The first lee bow is on the flow from Chichester and the second is achieved using the north-south flow over the Winner.

Once around the Winner mark the course is a broad reach towards the point of East Head and then to the Wittering mark. The best course is to head for the East Head shore, gybe and run, in a northerly direction, up and around the corner

towards the mark. A broad reach to Mill Rythe follows. It will pay to follow a direct line or possibly a lower line to allow for the cross-tidal flows pushing you southwards. After Mill Rythe on the windward leg down the Emsworth Channel back toward Treloar it will pay to sail the beat in the main tidal flow avoiding the HISC moorings and taking care not to get in the lee of the new clubhouse. From Treloar back to Mill Rythe the best course to avoid the ebb is to run north over the Winner bank leaving the bank near N Winner to cross to the Pilsley Sands and thence to Mill Rythe. Subsequent legs follow the same advice as above.

### South West Wind (225°)

A start in the Rookwood area leads on to a beat down the channel to Calvert. The Channel should be followed sailing the inside of the bend until the East Head area is reached. A starboard tack onto the Winner bank followed by a long port tack will be the best course to Calvert. After Calvert a broad reach follows north towards Channel. The course should be along the edge of the Winner bank and over the Chichester channel towards the Pilsley Sands and on towards Channel. ►





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[www.conservancy.co.uk/water/racing\\_tips.asp](http://www.conservancy.co.uk/water/racing_tips.asp)

There follows a gybe and a reach across the sands towards Thorney mark keeping low to avoid being swept southwards.

At Thorney, follow the channel towards East Head as in first beat. Use

the inside of the bend and take an early tack over the Winner until, aided by the ebb, Calvert can be fetched on port tack. The course then repeats itself and a similar course can be followed.

### West Wind (270°)

This course will start at Ellanore with SW Pilsley as weather mark.

It is advised to follow the main channel and approach SW Pilsley on port using the lee-bow effect from the Emsworth flow to gain extra speed (avoiding the starboard tack boats). To Channel take the Pilsley side to get into slacker water. Channel to Thorney will be a broad reach. Thorney to SW Pilsley will be a windward leg similar to the first leg. The next leg to Ellanore is best sailed over the Pilsley Sands on a line close to Stocker Bank. The advice on the remaining similar legs follows that above.

### West North West Wind (280°+)

This course features a start at Ellanore with a windward leg across the Pilsley Sands to a mark laid on Pilsley Sands (on the same latitude as Mill Rythe) called Mill Rythe East. The favoured route to get to this mark involves sailing on starboard tack down the channel from Ellanore area towards HISC and at some point near Stocker buoy tack on to port tack to go for a long approach to the mark. On this tack you will be lee-bowing the ebb flow which runs westerly across the Sands (before

turning later south to exit the harbour). After rounding Mill Rythe East the next leg to Freddie Brooks is a reach taking a direct path across the sands. A reach to East Head taken to the north of the red channel buoys until Sandhead is reached when an attempt can be made to approach East Head. A windward leg follows to Mill Rythe East. This should be taken as the first leg.

Tack down the channel towards HISC and strike to the north near Stocker mark. The course then repeats.

### South South West Wind (200°)

Starting near John's Folly, this course has a windward mark on the Winner. The best course is to keep to the left gaining the flow of the Chichester channel and carry this down to East Head. At the western end of East Head a port tack for the Winner mark should follow a starboard tack over the Winner Bank. The next mark, Channel, lies to the north, so run



off the Winner Bank passing near Mid Winner and over the channel to the Pilsley Sands will enable your boat to stay out of the tide until the approach to Channel buoy. Channel to Lowles will be close reach on starboard tack sailed directly. The next leg is a repeat windward leg to the Winner buoy carried out as the opening leg. Then follows a leg from Winner to Thorney. This leg should be handled by reaching NNE towards the Pilsley Sands and coming out late for the approach to the Thorney. The final leg will involve tacking down the ebb towards East Head, and as soon as it is possible getting over onto the Winner Bank to approach the Winner buoy as the first beat.

### South Easterly Wind (170°)

This course will start near Channel buoy with a windward leg to a mark on the Winner Bank. The beat will be sailed down the Emsworth Channel seaward, avoiding the moorings and the wind shadow of HISC, and out over the Winner Bank. On rounding against the ebb the next mark will be a return on the run to Channel buoy. The route from Winner Bank mark will lie over the high part of the Bank, passing close to NE Winner and gaining the sanctuary of the Pilsley Sands to the east of Fishery buoy. Once over the sands maintain a course parallel to the Emsworth Channel until the approach to Channel buoy becomes necessary.

On the reach toward NE Sandhead a leeward course is to be recommended if the ebb off the bank is strong enough to warrant it.

### North West by North Wind (350°)

This course is a small variation on the first course described. The same instructions apply. ☼



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