## Tom Cunliffe



## Where, oh Where is the Wind?



## Tom remembers asking his Yachtmaster candidates this apparently obvious question and receiving a variety of replies...

Man years ago I examined a Yachtmaster candidate who was mustard on the Rule of the Road and a veritable demon on navigation. He knew more than I did about fire extinguishers too, so I kept quiet about those, but he failed comprehensively on boat handling under sail. He managed tolerably on passage, trimming sails after a fashion and reefing when we fell over, but once we began manoeuvring, like many before him, he dropped to pieces. The reason was lack of appreciation of 'apparent wind bend'.



Which of these candidates would have given the right answer?

We had four candidates on that exam and I asked everyone where the real breeze was coming from as we sailed our first passage. This might sound obvious. Take four typical Yachtmaster hopefuls, however, and as likely as not you'll get four different reactions. One will glance instinctively aloft; if the yacht is equipped with a masthead indicator, he will tell you pretty accurately where the apparent wind is, which is not what you asked. A second will advise you that he can feel it on his cheek and point vaguely. The next will look straight at the instruments, often not checking whether they are set up for 'true' or 'apparent'. With a bit of luck, the fourth will give the response you've been hoping for.



The first three guys will now reason that they did not understand what I wanted, and that of course they know all about true and apparent. Although I've heard it all before and am not generally noted for being unspecific in my questioning, they are given the benefit of the doubt. Nobody fails on this count alone, but what interests me is that the good boat handler is invariably the one who goes instinctively for the true breeze. The reason is that the tactics for any sailing manoeuvre, from deciding when to gybe on passage to picking up a mooring, will be dictated by the air flowing across the water, not over the moving yacht's deck. The real crunch often comes with the manoverboard pick-up under sail, as it did for the candidate in question.

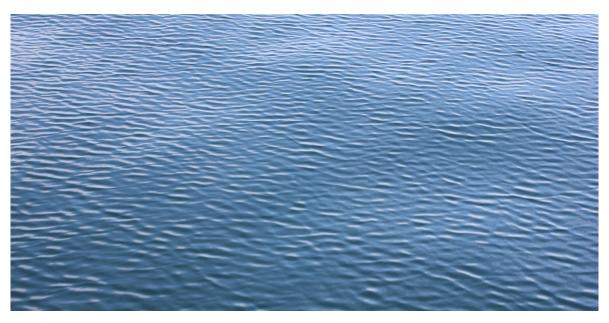
Assuming a 'crash-stop' by tacking onto a tight headsail sheet has left the skipper under control but remote from the casualty, he or she will reach away, tack or gybe, then return on what, with adjustments, is approximately a reciprocal course. The 'pick-up' run is best executed on a close reach, because only this point of sail allows the boat full command of her way by spilling air without entering the black hole of the downwind no-go zone.



A sailor of even modest ability can approach under control if a benevolent magician puts him on a close reach with the casualty under the lee bow. The challenge is to work into this privileged position. Here's why it's hit-and-miss for my first three yachtmasters and easy for the fourth:

As the yacht reaches away from the casualty to gain searoom, it is more than likely she is pulling the apparent airstream round by as much as 20 degrees. As she returns at slower speed, she may still be shunting the breeze forward by 10 degrees, making a total shift of 30 degrees. Nobody but a dynamic genius can predict exactly what the wind might be on a reciprocal reach simply by peering up at a swivelling arrow, so the angle of the outbound leg is generally a lottery. The run-in is therefore doomed to be either untidy or a failure, depending on the skipper's luck.

Planning a manoeuvre on apparent wind is like building the biblical house on sand. The true wind, on the other hand, promises a solid foundation. If the boat can reach away at a determined angle to this, the desired reciprocal angle can readily be arranged. The only problem is being able to see it.



Tiny ripples like the ones you get when you blow across your soup to cool it down.

The most effective method is to observe the water near the boat. The small ripples driven by any air over eight knots or so run at right-angles to the wind. Constructing a virtual angle of 90 degrees to find its source is soon automatic. Ignore the waves. They may be subject to all sorts of anomalies. Just check the tiny ripples like the ones you get when you blow across your soup to cool it down. They're bigger in a gale, but still small by comparison, and they are always there.

Outbound from an MOB, place the boat a little to leeward (say, 10 to 15 degrees) of an imaginary line running along the wind ripples directly from the casualty, make your distance, then gybe. If the gybe required no searoom, your return angle would be 80 degrees to the true wind, but by the time you've completed it you'll probably be at 60 degrees or so, which is just what the examiner ordered. If you don't like gybing, perhaps because you sail a gaff cutter as I did in those days, you'll have to reach away with the true breeze about 45 degrees over your quarter. You'll make up the slack when you tack, leaving you a healthy 60 degrees on your return. Only practice and experiment will determine that vital angle of departure for a given boat, and circumstances may vary, but once you've cracked the principle, the MOB manoeuvre will never be a worry again.





Approach on a close reach

Picking up a mooring buoy or coming to a predetermined anchoring spot in slack water or windwith-tide is the same. Approach on a close reach and luff off the last of your way right at the end. No stuffing the yacht head to wind several boat's lengths from the buoy and hoping to make it before she loses way. It's dead easy. Spot the wind and you can't go wrong.

Next time you go sailing, start training your eye to spot those ripples. At first, they may seem difficult to identify, but when you've become a dab hand, you'll wonder why you ever looked anywhere else for the wind.

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