Point High

A Winning Strategy

Find the Wind.

877 has realized that a wind shift is allowing him to point much higher. Most of the rest of the fleet is continuing on its former course

996 is pointing high on a wind shift.

Peter Shorett's 996 is pointing high and sailing fast . That is why 996 is in the lead. 1330 has the same wind and is also doing well. 877 looks a little bit too high here. Notice 877 is not heeling. The lift that is powering 996 and 1330 and allowing these two boats to point high has not quite reached 877 yet. Close up you can see the jib luffing slightly on 877. From a distance, you have to judge how high to point by the amount of heel relative to the amount of wind where your boat is sailing. Judge the wind strength by the wind ripples and by watching the other boats near you.

Now the lift starts to reach 877

877 starts to heel and accelerate on a course close to the wind. The other boats around 877 are still reaching off too far and have not yet realized how high they are able to point as the wind shift reaches them.

Find 1038 sailed by Bates McKee.

Bates is pointing 5 degrees higher than any other boat in the picture. His sails are full and he is heeling over at a good angle. His boat speed is higher than the surrounding boats since his angle relative to the wind is correct for his sail trim. He is sheeted in close, and he is close to the wind. Always watch the top skippers to see what they are doing! In a good breeze, pointing high does not mean sacrificing boat speed. If your sails are sheeted in for a course close to the wind and you are not sailing close to the wind , the sails will not be working for you and you will actually sacrifice boat speed by being too far off the wind.

1173 Pulls ahead

1173, sailed by 2012 National Champion Bill Jones, is pointing higher by 2 degrees than anyone else in the fleet. Bill is closely followed by Carl Buchan (Olympic Gold Medal Winner) in sail number 7. Peter Shorett and Jonathan McKee (Olympic Gold Medal Winner) at the very edge are dipping back after an over early.

Peter and Jonathan are off and pointing high

By pointing as high as they should, Peter Shorett (yellow hull, white sails) and Jonathan McKee (wood hull, blue and red sails) will move up through the fleet. They have positioned themselves for clear air.

The red sail points high on a lift

The red sail may make the mark, while the two white sails ahead of the red sail look like they will miss the mark by not realizing soon enough how high they can point. The red sail is still heeling and moving fast. The purple sail on the right is pinching too high. Even if you can't see the sail starting to luff, you can see the boat standing up straight when the other boats are all heeling over.

Carl Buchan in 1200 and Peter, yellow hull, and Bates, green hull, are all three pointing high and sailing fast

1108 will soon be left behind. 1108's sails are trimmed too tight and the boat is not pointing as high as Bates. Bates has his mainsail slightly farther out and he is 2 degrees higher than 1108. Faster and higher! Some of the other boats in the fleet are reaching off too far and will have lost a lot of ground by the time they reach the upwind mark.

Now 1108 starts to realize but overcorrects

Look at the heel of 1108. Look at the wind ripples on the water. Look at the heel of the other boats nearby. Good breeze. 1108 is standing up too straight. There is looseness in the luff of 1108 near the mast just above the numbers. Bates will soon move through underneath 1108. 1108 should be cueing off of Peter in 966 and off 1200.

Bates moves into third place

Carl Buchan, Peter Shorett and Bates McKee will get to the upwind mark well ahead of the rest of the fleet because they are pointing higher.

Bates McKee (blue mainsail) is pointing 5 degrees higher than 1007

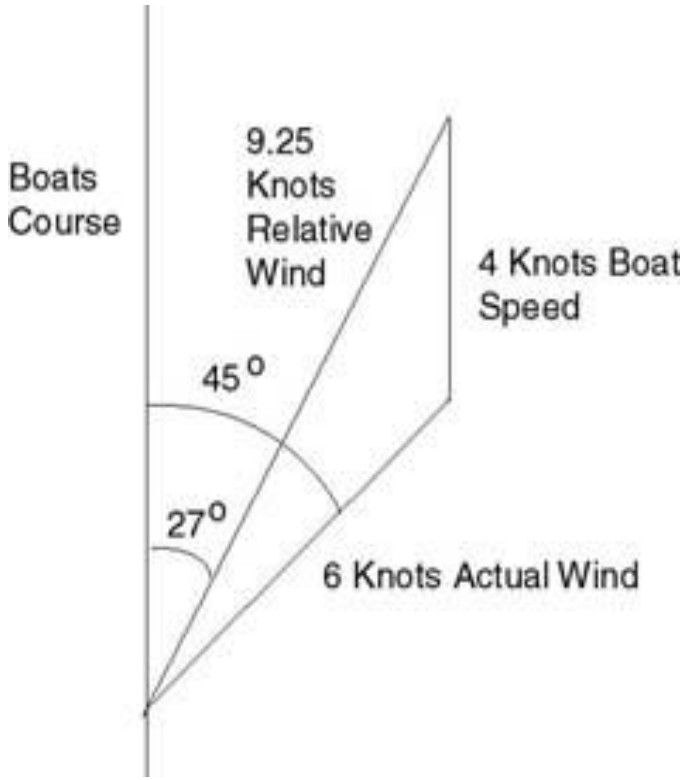
1007 needs to come up higher. 1007 has too much heel and probably less boat speed than Bates due to the sails being trimmed on both boats for pointing close to the wind, but only Bates is pointing close. The edge of Bates's deck is above water. 1007 has the edge of his deck submerged. 1007 is heeling more, but not sailing as fast and not pointing as high.

Close Crossings!

Judge how close you are to the wind by the angle of your boat relative to the angle of boats on the opposite tack. Being able to identify the top skippers in the fleet can help you since you know they will be pointing as high as they can without sacrificing boat speed.

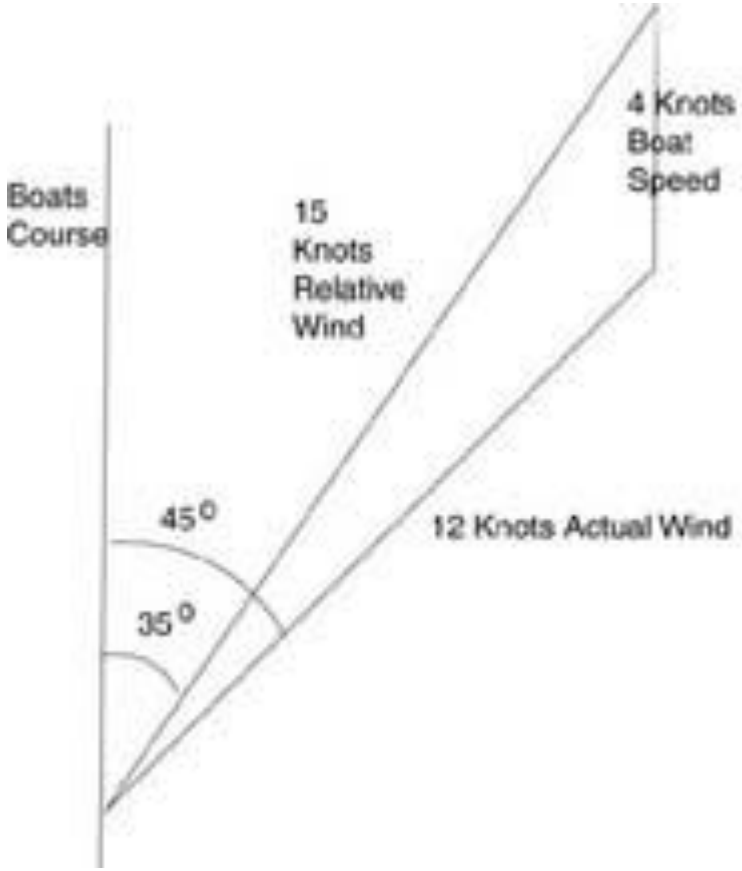
Look at how 1038 rounded this mark!

Close behind 1038, 1330 brushes the flag and gets slowed down by the flag dragging on the sail. 1038 rounds onto a perfect close upwind course, good angle of heel for the wind level. 1330 is pointing slightly too high. You can tell this because the angle of heel of 1330 is too upright for this amount of wind and you can see a slight softness in the main just behind the mast. Compare how the blue mainsail on 1038 looks right behind the mast to the way the red mainsail on 1330 looks right behind the mast.



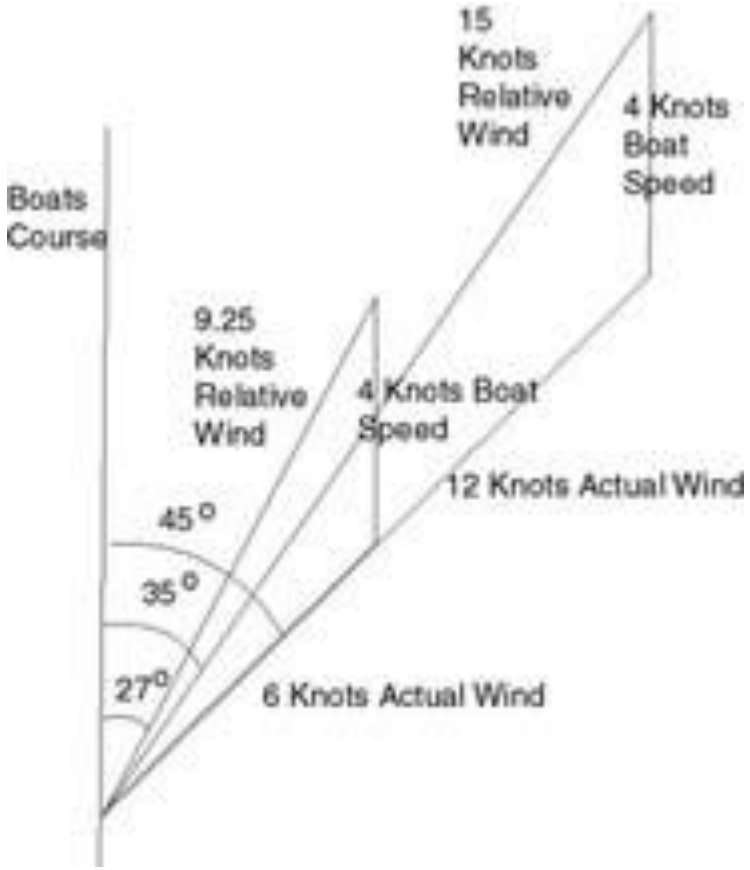
Understanding the Relative Wind

6 Knots Wind at 45 degrees combined with 4 knots boat speed gives a relative wind of 9.25 knots at 27 degrees



What happens in a puff

In a strong puff the actual wind speed could double. Let's say the actual wind stays the same direction. The actual wind speed has been 6 knots. Now the actual wind speed doubles in a puff to 12 knots. Your boat has not accelerated yet so your boat speed is still 4 knots. If you continue on the same course, the relative wind goes up to 15 knots at a direction of 35 degrees to your course.



In a Puff the relative wind can swing 8 degrees

In this case when the puff first reaches your boat the relative wind angle changes from 27 degrees to 35 degrees, a change of 8 degrees, even though the actual wind is still from the same direction. Now the relative wind is more from beside your boat than it was before. Your sails, which are sheeted in close, are no longer set correctly unless you change course and come up higher, closer to the wind. Right as the puff hits your boat, you can head way up. As your boat accelerates, the relative wind changes again, but your boat speed does not double so the relative wind is still at a wider angle than it was originally before the puff reached you. If you don't head up as the puff reaches you, your boat will heel way over, the sails will be trimmed wrong for the new relative wind direction, and you will lose boat speed. If you head up just as the puff reaches you, you will gain boat speed as well as gaining significant distance upwind.

2 degrees over 100 feet is four feet

In a distance of 100 feet, if you are pointing just 2 degrees higher than another boat, you will end up 4 feet farther upwind. Four feet directly upwind is more than four feet ahead of the other boat when you round the upwind mark.

Point high!

Judge how high you can point by comparing your boat's angle of heel to the strength of the wind where your boat is. You can judge the strength of the wind where your boat is by the wind ripples on the water right where your boat is, by the heel of nearby boats and also to some extent by the wind you feel where you are standing. Keep testing to see if you can point higher by heading up a bit and then heading back off so you are sailing a slightly scalloped course. Constantly evaluate your boat speed compared to the wind . Constantly evaluate your angle of heel compared to the wind.