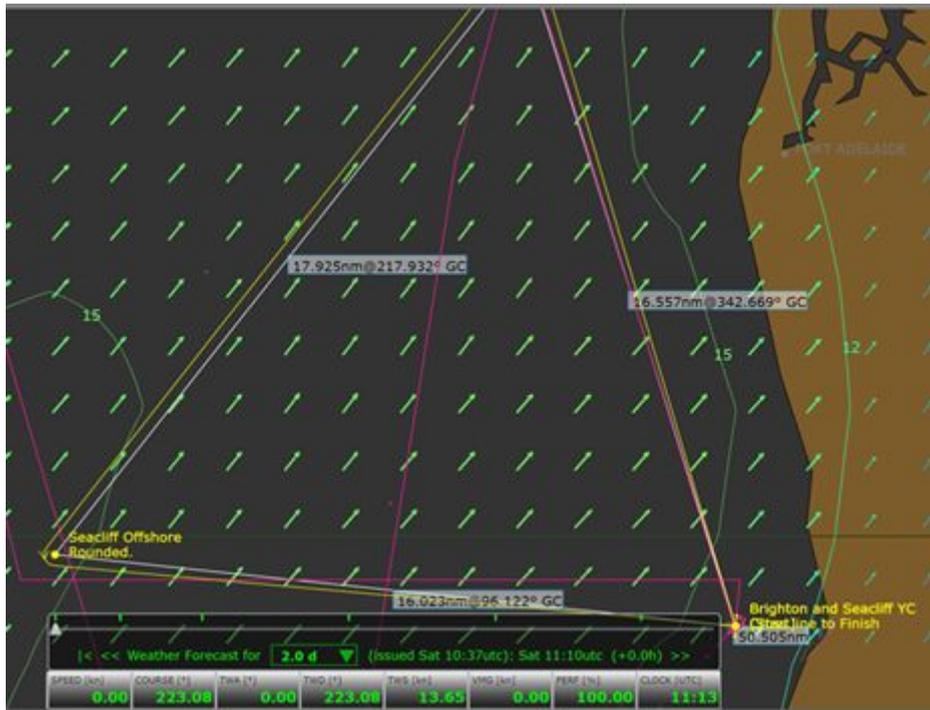
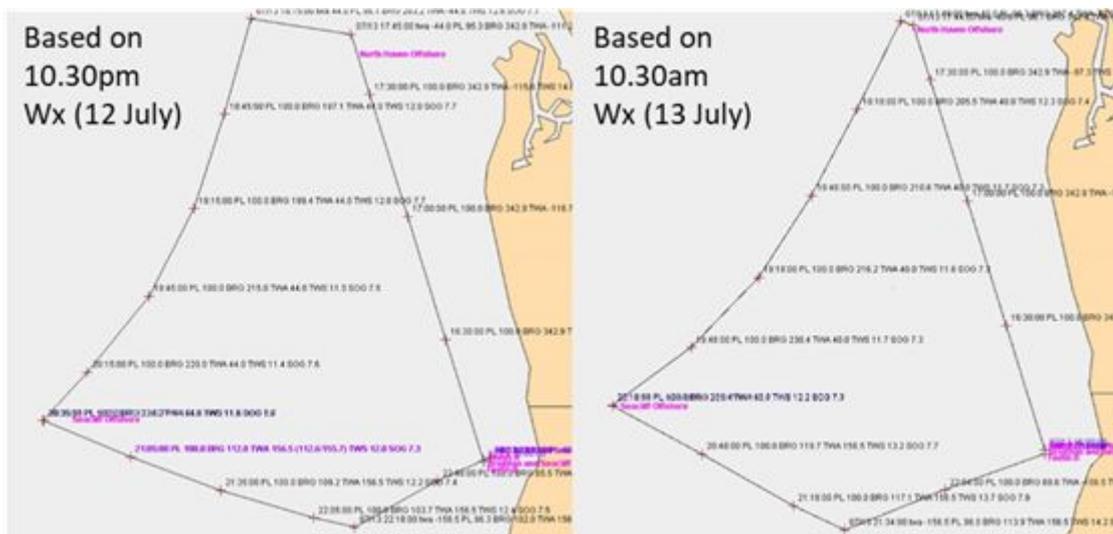


The objectives of this race is to start at one corner of a triangle, then travel one lap anticlockwise around it (passing North Haven Offshore & Seacliff Offshore) before returning to the starting corner. Sounds easy, right? The course itself, as stated in the starting description, is indeed (with uncertainty $\pm 1\text{nm}/\text{side}$ and $\pm 5^\circ$ for each corner) an equilateral triangle!



In order for the true equilateral triangle to be sailed efficiently, the difference between the maximum headwind VMG and the maximum tailwind VMG would need to be at least $\sim 120^\circ$. Some boats are unable to achieve this at any wind speed. While the FG43 *can* theoretically do so, it would require a very specific constant TWD (55° , 142° or 259° almost exactly). Hence, the optimal route would be exceedingly unlikely to actually be in the equilateral triangle shape.



In fact, the forecast indicated that the winds will shift from the SW to the W while we were to traverse the North Haven-Seacliff side of the triangle, which means that the optimal path was predicted to be more like a pentagon to maintain optimal TWA.

The left DC checker image was generated using the Wx from 12 July, 10.30pm UTC. Estimated duration at that time was 6½ to 7 hours, which in Singapore would be midnight to sunrise (thank goodness it's not a working day!). I didn't optimize that because the forecast can change dramatically in the 17 hours left to the race; however, given how unlikely the first stint to North Haven will change from the given crosswind, I went ahead to set that as the starting DC.

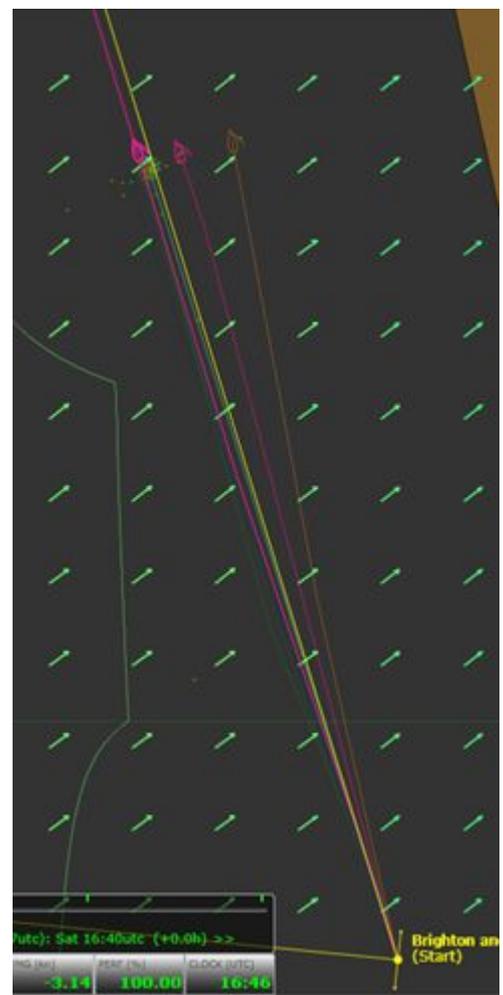
The right DC checker image was generated using the Wx from 13 July, 10.30am UTC. This gave an estimated duration of 6 hours 34 minutes. Comparing with the Wx from 12 hours ago, it appears that the winds have shifted so it will take slightly longer to reach North Haven. The ideal timing to Gybe along the other two sides have shifted earlier, thus resulting in the expected shape of the route changing (nearly) into that of a kite. I had also run QtVIm on this Wx but dismissed that suggested route as that routing had an estimated time which exceeded my predicted commands (which was due to using the wrong boat polar, something which I realized only after finishing the race). Later in the race, this would come to haunt me.

I got back just around the time of Towback. Didn't do anything much until the race began. One thing is that, while the top 10 can be separated by just a few seconds in any race, this is far more likely to happen throughout a Sprint race like this. Hence, it's worth paying attention to what your competition is doing, and to either follow them or stick to your planned route and hope it's enough to take advantage of their choice. Notably, neither ij nor WRmirekd was present at the start of this race, which meant it (should) be easier to make it to the top 10.

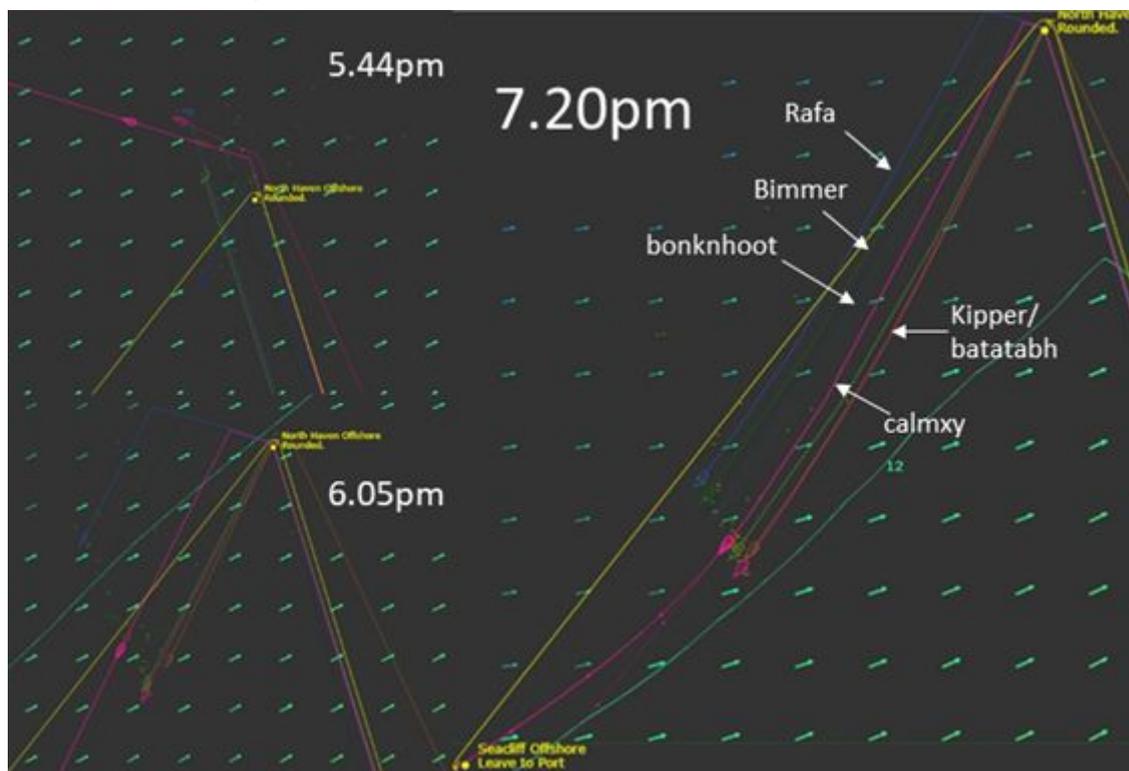
45 mins into the race, I find that many boats were indeed following the shortest path to North Haven, but many others have branched out (within limits) in order to find a quicker path to the finish. I did end up heading slightly to the West to get stronger winds, as did Bimmer and bonknhoot. It would be difficult to tell which boat was going to get to North Haven first, especially since the positions of the closely-matched pack kept fluctuating.

Another thing to note is that the new Wx (supposed to arrive at 4.30pm UTC) hadn't arrived yet and we were fast approaching North Haven. Later, we would receive an announcement that this particular Wx will simply be skipped and the next one will arrive at 10.30pm UTC (which will be irrelevant for top 10).

This may have contributed to determining the exact path that was to be taken towards Seacliff, as any update to the Wx could suddenly appear (since it was overdue) and depending on what changes there were, it could be beneficial or detrimental. Most of the boats immediately went for the TWA of 40° to starboard, while a few like Bimmer, rafa and I went for the TWA of 40° to port



initially. Rafa in particular went quite some distance further on the port tack, which baffled me as I thought it unnecessary to head further west into weaker winds and cover more distance than the optimal headwind TWA.

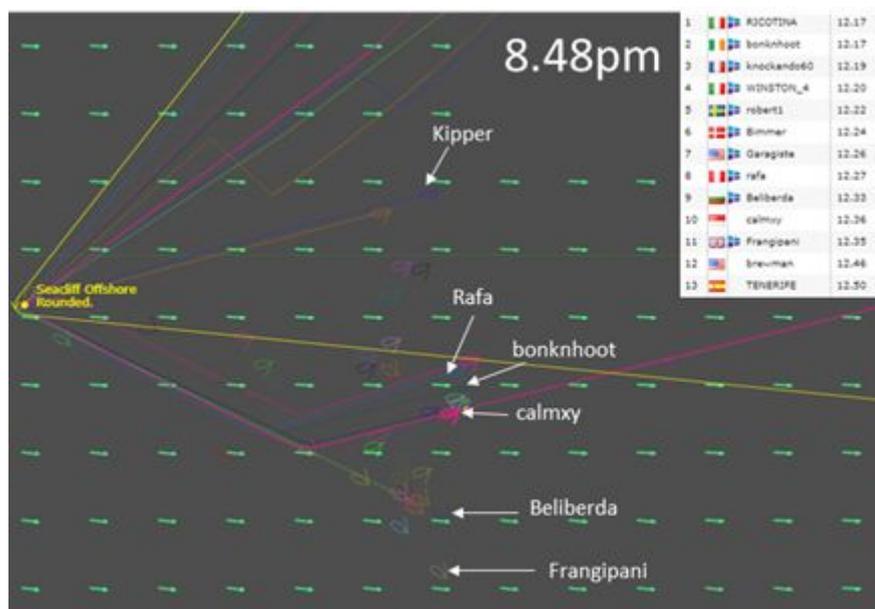


For most of the stretch between North Haven and Seacliff, it seemed like all the different routes would fare roughly equally well. But towards the end, it was kind of shocking from my perspective when the 10 boats I had believed to have “overshot” then straightened out their paths towards Seacliff, thus enabling them to get about a minute of advantage over me (their routes were much like what QtVIm had suggested). However, I did end up ahead of all those who went with the TWA of 40° to Starboard first. This was probably what bonknhoot meant by “bit more to this one than good finger-eye co-ordination” at the beginning of the race, that it’s not simply about clicking the next command immediately after successfully rounding a mark.

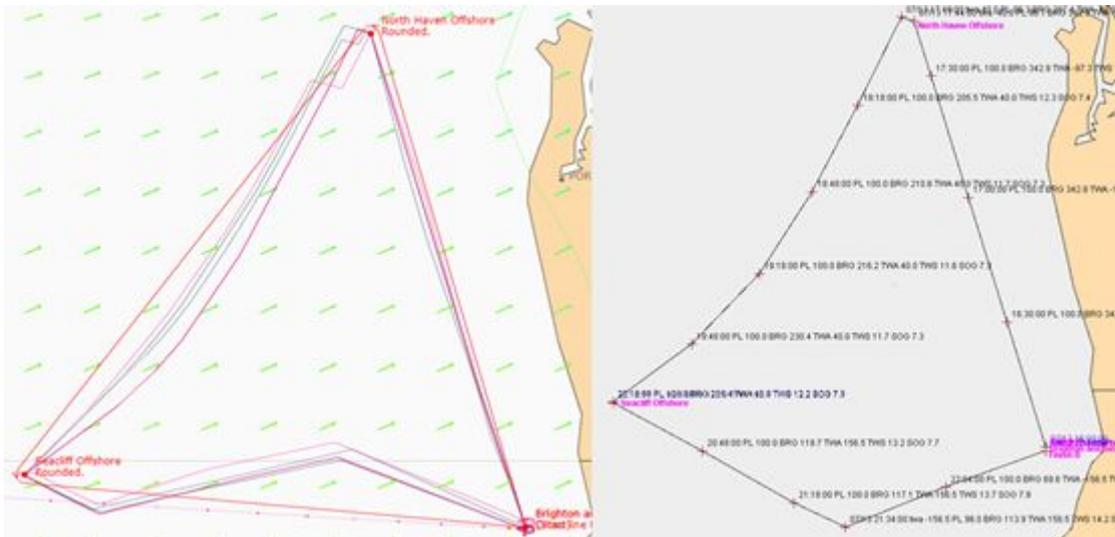
At the point of rounding Seacliff, it looked pretty likely that I would finish this race in 11th:

1. bonknhoot ← 0.1nm → 10. Beliberda ← 0.1nm → 11. **calmxy** ← 0.1nm → 12. TENERIFE

I decided to press on. In a sprint race, it would seem impossible to catch up even these seemingly tiny gaps. The opportunity soon appeared when Frangipani and Beliberda decided to go south (the route which I had predicted would be faster) while the rest of the leaders went north. That’s when I decided to follow the larger pack of leaders and head north instead; after all, I didn’t have much to lose if I wanted the top 10. Although it seemed like either route would

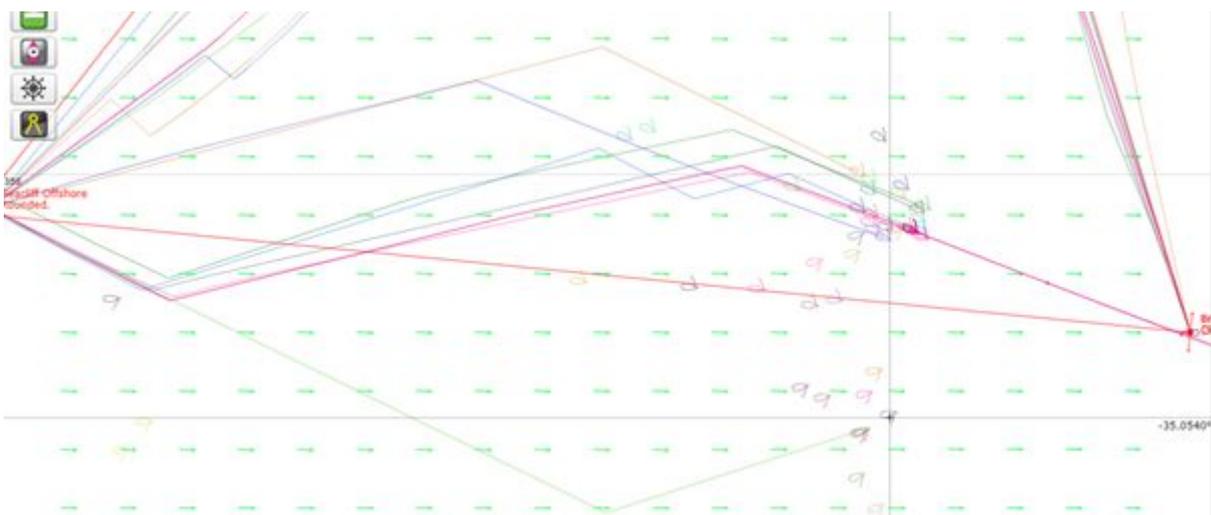


have been equally fast, this decision was wise, as I was able to reach the finish line in 9th place, and even made some headway in the gap to 8th (albeit insufficient to actually catch up to them).



Incidentally, since the Wx used for effectively the entire race was the 10.30am Wx on 13 July (as the next Wx came only after the top 10 had already finished), it means a direct comparison between my predicted path (right) and the actual paths (left; includes mine, Bimmer's, bonknhoot's and RICOTINA's paths) can be made.

If I had stuck completely to what I had predicted (and assuming that the server jumps get me around the marks properly), my predicted finishing time of 6 hours 34 minutes would have been just 5 minutes slower, but it would also set me back all the way to 28th place (instead of 9th). As it is, my actual finish was just 94 seconds shy of first place (1st to 3rd places, as well as 5th to 7th, were bunched up even closer – photo finishes).



Once again, I must thank Aaron for having made SOL (and this particular race) possible so that we can practice sailing competitively, in different places and different boats while living a normal working life and possibly not even owning a boat! Thanks also to everyone for making such an exciting race!