The first time I learned about Cape Horn was when I was a child, watching Tom and Jerry's <u>The Fast and the Furry</u>. It was funny seeing how Tom tried to "sail" the waters around Cape Horn; with all that wind going around, I wonder why he didn't put up some kind of "sail" (even if only a tattered cloth) and effectively transform his car into a "sailboat" that could put the wind to good use.

This race is the first time that I actually get to sail around those waters. (The second leg of GGR is also supposed to round this area, but my boat never made it that far.) Just like in the cartoon, there is plenty of wind to go around. Much of that, however, came from the west at 240-280°. That would have been good for Tom, who was



supposed to get from Cape Horn to Antarctica. But for our race, which is chiefly east-west, not so much. Instead, we had to wait for those rare opportunities when the wind was blowing from other angles.

For fleet races (i.e. most races), your start time is fixed and you have to work with whatever weather is around at Race Start, no matter how unfavourable it is. It's not explicitly stated for timed races but a general rule of thumb is that the racing route for the best time should be (mostly) geometric and you choose your start time such that this route can be completed quickly. That is, unless your timed race happens to be an <u>ocean race</u> or <u>Sail Around Turkey</u>, in which case deviations from the geometric route are probably required for the fastest time.

I would use Kipper's tool and for a given start time, set all the DCs including one at the finish line (this is how expected finish time is derived). Then I would change the time of each command by a certain interval (e.g. 15 mins) and tweak it further so that the new DCs will finish the race. By repeating the process, it is possible to find the optimal start time. For SOTP skippers, they may instead consider looking for intervals where a large number of boats leave Start to make their attempt - do note however that this may be misleading, as a number of skippers set their best time on 10 October and didn't even make an attempt on 8 October or 12-13 October, both of which would have resulted in better times.

In the <u>Hormuz timed race</u>, I made 14 attempts (that report shows the first 9). Here, however, I made just 8 attempts. Since I am an SYC member now, I am able to use the lightweight mobile tool to send commands in a pinch (i.e. when I BBQ), although it does come with limitations. The 8 attempts that I made on this course are summarized here:

Attempt	Rank	Boat Name	On Course	Start Time (UTC)	Finish Time (UTC)
1	84	calmxy	7:49:47	2019-10-01 13:24:22	2019-10-01 21:14:10
2	249	calmxy	16:43:20	2019-10-01 22:45:05	2019-10-02 15:28:26
3	121	calmxy	8:14:54	2019-10-06 06:52:14	2019-10-06 15:07:09
4	24	calmxy	7:04:16	2019-10-08 04:00:02	2019-10-08 11:04:19
5	56	calmxy	7:23:40	2019-10-10 12:00:01	2019-10-10 19:23:41
6	65	calmxy	7:33:10	2019-10-10 21:00:04	2019-10-11 04:33:14
7	1	calmxy	6:52:09	2019-10-12 19:45:02	2019-10-13 02:37:11

#### Attempt 1

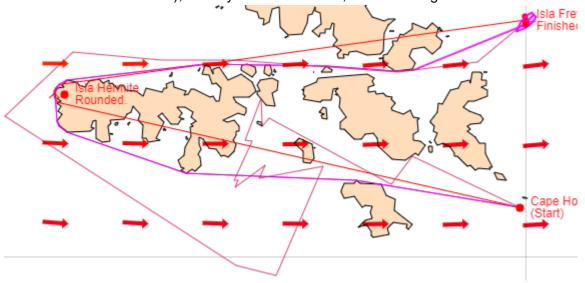
Winds: 22 knots at 220° shifting to 245°

The initial forecast predicted the winds blowing steadily at 30 knots from the East, with little variation in strength and direction (245-280°). That is, except at the very beginning, so anyone who joined within the first two hours was able to sail the geometric course for the westbound leg and set times that would remain unmatched until 6 October. This put my effective rank at 12.

### Attempt 2

Winds: 30 knots at 255°

I made a single attempt at trying to sail the course in the headwind. This of course would not have been a winning run; other boats clocked times of 8.5 to 10 hours depending on the exact wind direction in their attempt. But I managed to BBQ on a SLI just off the east coast of Isla Hermite on one of the westbound TWA DCs. I realized this some hours later and using the mobile client, attempted to input commands to get the boat to continue towards the finish. However, the mobile client does not have a feature to delete existing DCs (which were eastbound in this instance), so they continued to fire, thus resulting in this trace:



Probably one of the more creative traces that I produced, although I'm sure that some skippers have produced even better ones in other races e.g. Sail Around Turkey. All my other seven attempts had nearly identical traces.

It is for this reason that I didn't make any further attempts in the headwind; even if they may have been fun, it's a completely unnecessary risk where a BBQ could potentially cost me the opportunity to start under favourable winds without the benefit of a possible better time.

### Attempt 3

Winds: 12 knots at 330-350°

It may seem counterintuitive to make your attempt in a Timed race when the winds are weaker; after all, for pretty much the rest of the time, the winds were much stronger. But the wind direction did mean that you could put all 6.8 knots of boat speed into the geometric course as a result of better TWA. This contrasts with the 5-6 knots of VMC when sailing in 30 knot headwinds; even though stronger winds equate to higher attainable speeds, these stronger winds' angle means that much of that is wasted until Isla Hermite is rounded. The

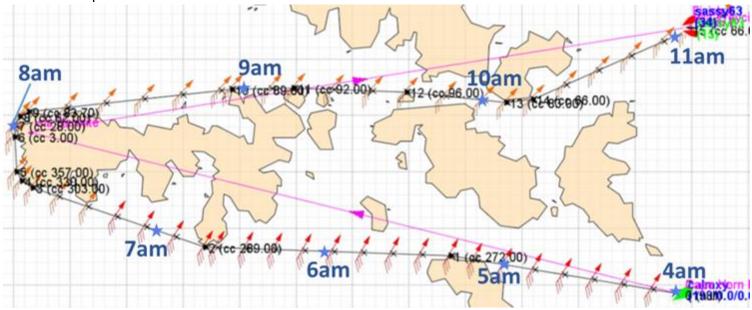
improved speed on the eastbound leg is unable to offset the time loss from all that tacking/gybing.

Having made a couple mistakes on this run, my time was again slower than what it should have been; sassy63 attained a time of 7h 52min having started around 20 mins before me.

# Attempt 4

Winds: 30 knots at 210° shifting to 230° (refer to diagram)

Expected time: 7h 6min



It took a long time for the ideal conditions to appear, but they did eventually arrive. The wind shift also meant that the boat would be faster overall than a static wind direction due to better TWA. The only problem was that the attempt started in the middle of the working day for me (4am UTC/noon Singapore time), so I would essentially be sailing most of the attempt under an unknown Wx. Attempting to manipulate the starting time to earlier in the day simply did not work; it would lengthen the expected time considerably.

Therefore, I set the DCs to have some margin (~0.1-0.2nm) around each headland that was to be rounded, to reduce the probability that the Wx change would result in a BBQ. After all, it's better to take a couple more minutes than to cut the corners too closely and waste the attempt entirely (my best time before this attempt was a whole 43 mins slower than this attempt's expected time). It did take me by surprise to have finished a mere 4 minutes slower than Kipper1258 in this attempt despite it being run entirely on DCs. This improved my effective rank to 8.

### Attempts 5 & 6

Winds: 40-50 knots at 215° Expected time: 7h 12min

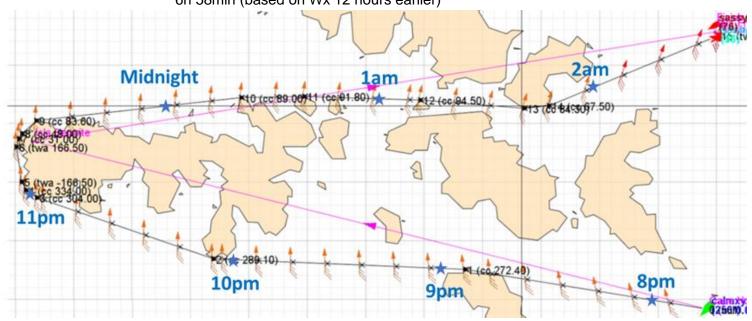
A surprising number of boats turned up around the time I started Attempt 5; 23 of them started between 10am and 3pm UTC on 10 October. This is more than the number of boats starting at around my starting times for Attempts 4 and 7. Presumably this is because the wind direction was favourable enough to sail the geometric course and the winds, at up to 50 knots, were at its strongest. But at 50 knots, the boat actually has the same speed as at 30 knots; in this instance, having a TWA closer to a beam reach would improve the speed more than wind strength. For many of these skippers, it would prove to be their best attempts at the course.

Otherwise, the two attempts were pretty similar. I overshot the finish line in Attempt 5 (which was thankfully stopped by a TWA 0 command a few minutes later) and BBQ'd on the SW coast of Isla Freycinet in Attempt 6, thereby accounting for the increased time on these attempts.

## Attempt 7

Winds: 22-25 knots at 170° shifting to 200°

Expected time: 6h 48min (based on Wx 2 days earlier) 6h 58min (based on Wx 12 hours earlier)



Note how the COG commands are slightly different from those used in Attempt 4; since I could adjust for the next Wx update, I set these commands to go right next to the coastlines.

On 12 October between Attempts 6 and 7, the touchpad for my laptop broke and I had to send it in for repair. This was rather unfortunate as it was still some 12 hours before Attempt 7 was due to begin and the Wx could still change significantly as observed from DC setting in earlier attempts. For whatever reason, my home computer was unable to run Java and hence Kipper's tool. Hence, I would effectively need to sail the next two attempts SOTP if I were to set competitive times. Without this attempt, my effective rank would be 17 as of race close. This may actually have been a blessing in disguise.

I woke up at around 6pm UTC to observe if any skippers were starting in Cape Horn (and also to participate in the first <a href="Practice Race at Hong Kong">Practice Race at Hong Kong</a>); several started at around 7.15pm, rafa at 7.30pm, batatabh at 7.50pm and Bimmer at 7.55pm. I kept to my originally set start time of 7.45pm. Any subsequent sleep for that night was limited to one hour, dictated by the interval between DCs minus 10 minutes, to ensure that each headland was rounded accurately. Thankfully, as this was a Sunday, I didn't need to worry about going to work afterwards.

I had to run some errands right after making sending the last command (and checking that it would indeed cross the finish line). A quick check showed that I would be finishing with a time of 6h 52min; at this time I was largely unaware of how the other boats were faring as I was constantly at max zoom on my own boat. I was fully expecting someone to set a time of 6h 51min.

I came back a few hours later and was quite surprised that nobody achieved the 6h 51min timing! It was me on the top step of the podium, followed by batatabh and Bimmer. What's even more interesting is that none of this podium had won a race prior to this one.

Then I noticed this in the chat:

```
Nice to see new names on the podium. Sit comfortably, for a while.

Stevers200 13 Oct @06:58

grrr

Bimmer 13 Oct @04:10

I believe we're secure on the podium :-))))

batatabh 13 Oct @03:17

Lets see how much time we stand in this position
```

Thanks Go4iT for the congratulations. But that part "for a while" bothered me. Was it that the Wx had now changed so a run starting at some time between 4am and 9am UTC could use the upcoming wind shift to improve on our times? Or was it that the upcoming weather would not enable anyone else to set a time fast enough to challenge our podium, and we had to wait "for a while" until race close before it could be formally declared? Without the DC checker, I would not be able to conclusively determine which interpretation it was supposed to be, thereby leading to Attempt 8.

### Attempt 8

Winds: 22-25 knots at 190° shifting to 220°

Expected time: 6h 59min (based on Wx 24 hours earlier)

Given how some Wx updates indicated that Attempt 8's time would be expected to only be 1-2 mins slower than Attempt 7, it did seem reasonable to expect a chance of this attempt being faster. However, the resulting winds meant that the fastest times set during this time were around 6h 59min, which was only good for effective rank 11.

The winds then settled into blowing from the west for the remaining duration of the timed race, thus ensuring that the podium wouldn't undergo any further changes.

With that, I have achieved my (and Singapore's) first SOL win. Congrats to batatabh and Bimmer for the competition and their podium finishes, and I sincerely hope that they both get their first wins soon.