Migaloo Migration 2019: Race Report

by ij
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After BBQing my opportunities in the previous two races, entirely unnecessarily in both, the hunt for the perfect score of ten takes me into this ocean race. In addition, after winning two other quarter series already, one more would hurt ;-). To achieve the latter goal, I basically need to keep **SKOVSER** behind me and not lose for **StIngFl** more than one position (to other competitors, I've bigger lead already from the previous race so more buffer available). Obviously, for the former goal, only a win will suffice.

The initial outlook on weather promised nice speedy run in little less than one week. No significant low wind speed zones to cross after the start, that did not have high winds. Soon enough we would pass a transitional zone into strong westerlies. To reach there, we need to gybe once and tack during the transition. My router was proposing to sail quite low into the westerlies, because the route further up diverged away from the coast of Australia into good winds. I, however, was not convinced that will pay off and picked a route with a slightly higher entrypoint for the westeries because it allows a slightly better angle through the westeries, which with this polar means a little bit of extra speed.

So we start up, and receive the first weather update slightly before the first gybe. This already proves my initial entrypoint decision right as the long-term route no longer takes the far from the coast route. Instead, the router now thinks that a gybe bouncing off the HP near Tasmania is the way to go. But this is not all, qtVlm also seems to think that routing around the nearby transitional zone using a long detour into west would be faster. I don't believe that the slightest. While I can see why the wind angle differences *might* make that route faster, it is a very very fragile hope. To my relief, both **SKOVSER** and **StIngFl** are lured to take the detour. I keep sailing according to the initial plan (and only after a few minutes qtVlm also forsakes all hope for the detour, which well displays how marginal the advantage, even in the best case, would have been).

Most keep sailing north and we make the transition. With quite favorable wind angles expected for a few upcoming days, my main attention shifts avoiding sailing too close to HP near Tasmania. This means I might not always take the ultimately fastest route I can output from the router but force it to produce a route with little to negligible losses while trying to position my boat as east as possible. That seems to work quite well compared with the other nearby boats. I seem to have already acquired a small lead from the handling of the initial maneuvers and from the higher entrypoint giving me the speed advantage.

We sail up towards the gybe point, curving slightly west as the wind angle starts

to restrict direct north advance. The detour group has to make drastic corrections for their course to reach a good gybe point, which drops them far. The gybe it-self, is somewhat risky maneuver here because a weather update occurs almost simultaneously. Which height should I reserve for the next part? As a late gybe can really cost position I rather make an early one, which implies the update only after the maneuver. **Aner59** turns slightly before my indented gybe point but other sail clearly lower. **Rafa** keeps sailing much beyond the weather update. After the weather update arrives, some boats decide to resume towards NW. At the time I notice this and can actually check how good routes that would have offered (I initially assumed the extra gybes to be entirely unnecessary and forced qtVlm to ignore that over keeping on starboard), the difference is down to 0.05nm, which will be easily lost due to performance loss of two gybes. Perhaps the difference was longer earlier but there is no going back now :-).

First it looks that the route closer to the coast really pays off big time as **rafa** and others keep gaining due to better wind angle and speed. I keep holding my breath :-). However, I fail to take account (in a good way) what lies ahead. Once my boat reaches the area around the weather grid line at 154E, the higher wind speed allows taking advantage of the polar and sail north at a very good speed. I start to pull ahead once again and the wind gradient allows also gaining some headroom from **aner59**.
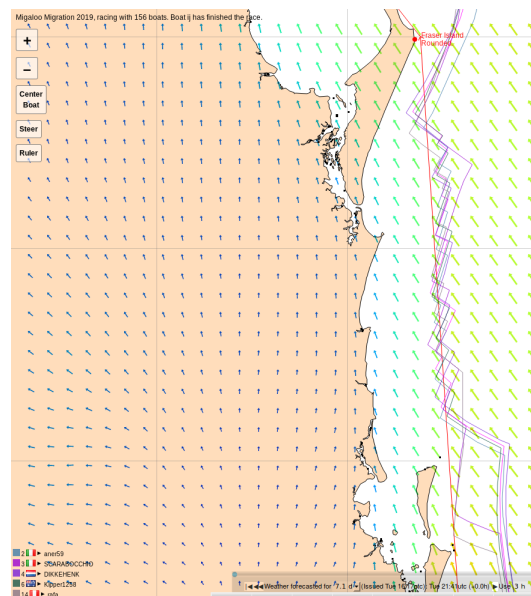
Figure 1: Top boats gybing through wind hole along weather grid line

A wind hole is developing near Fraser island but the passage still looks good along a weather grid line without leaving starboard. Out of curiosity, before turning into the 154E I checked the bypass route, which would have been reachable at that point without big course corrections and find it to be only 5nm worse than the more direct route. That would certainly be more safe route but then the wind hole may allow slipping past me when the situation develops so I sail safe into the same wind trap as other top boats. As we approach the wind hole, the conditions

deteriorate considerably requiring more and more gybes after each weather update along the weather grid line (first 2, then for the first weather, and finally throughout two weather updates).

The weather grid line we use has very steep wind speed gradients on both sides, which unfortunately impact maxVMG TWA considerably making the steering setup very annoying. Before entering into the wind hole, my lead is nearly 5nm, which means I could have detoured around and likely would have now gained much more than the initial calculations without all these extra gybes indicated. When entering the wind hole, **rafa** ends up sailing into wrong angle losing lot of distance over the others (probably due to a misoptimization of the route in qtVlm).

The wind variations allow the chasers to reach as close as 2nm before exiting the worst zone. As I tend to often route open (and very islandy areas) without coastal check when possible (faster, less locked points, easier to find the optimal route, etc.), qtVlm now thinks that the best route would plough through Fraser's sands, now that's not all that useful. It's time to force it to sail around with a barrier and voilà, the coastal route is no longer the best pick. So out we sail again. The last gybe before Fraser Island is again challenging to time. A later gybe will initially gain, whereas an early one has big returns later from better wind. I pick the early approach once again but this time I need to even adjust my planned by point slightly to keep clearly ahead as **aner59** turns much earlier than me.

Figure 2: **Kipper1258** trying coastal shortcut route?

When about to sail north of Fraser Island, **Kipper1258** makes a surprise gybe. Is he heading for the coastal route? That would be perfect opportunist strategy given the progress at the coast is initially better. There is no way I can cover for that so there's nothing I can do about it so no change needed to my own plan. Soon enough, he gybes again so perhaps there is nothing to worry about despite he keeping much lower course, which I came think was to take advantage of some wind angles along a weather grid line around there.

I try to sail slightly lower than what router proposes to cover all lower than me, which will cost some in distance (0.1-0.2nm) but I have enough buffer for that. Soon enough weather update forces me back on a more eastern course though. I note
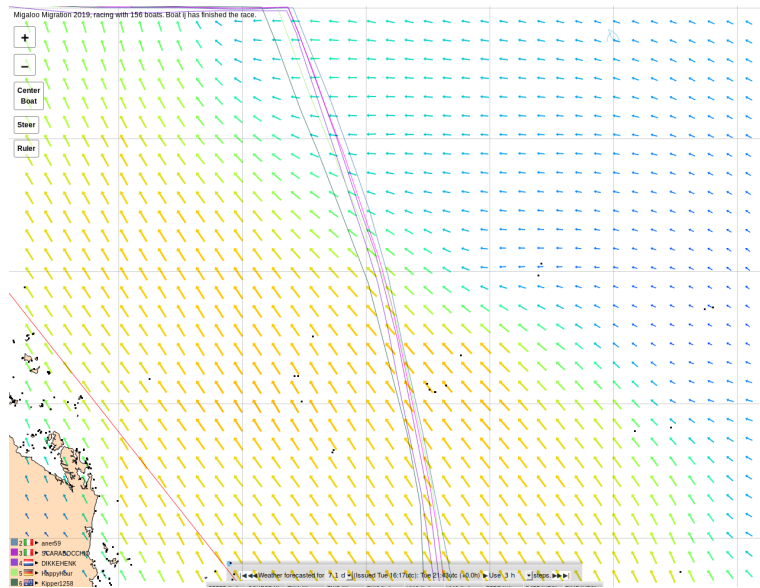
Figure 3: Treacherous waters, part 1 (tiny islets highlighted)

that the ocean ahead is very treacherous! Reefs ahead! The annoying thing is that the UI does not show them until zoomed close enough so I need to scan my route after each weather very carefully in AGL until the finish line to avoid disappointing surprises.
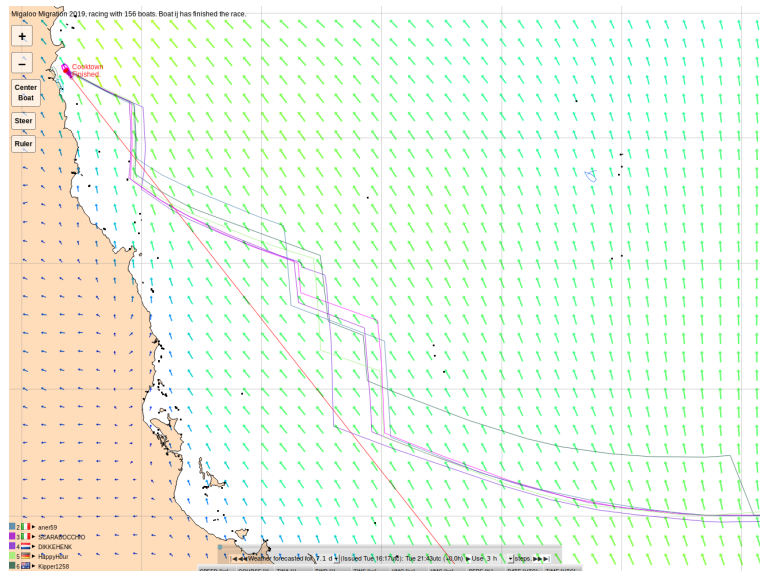

Figure 4: Treacherous waters, part 2 (tiny islets highlighted)

The rest of the race is pretty straightforward downwind sailing. Often qtVlm produces suboptimal routes which can be improved a little by retiming the gybes

and more so, when the performance loss impact is considered. Some other boats resort to mind-boggling performance loss minimization maneuvers using a slalom technique where rudder is yanked back and forth until the crew of the boat is so tired they stop thinking and perform remaining maneuvers based on instinct only with the perfect accuracy. I do not need to resort to such madness although I considered such possibility before noticing some actually do slalom :-).

With a clear lead, strong enough winds, and favorable location of every weather update, I finish 1st with no problems. Both goals achieved, the Q2 ocean win and the perfect score of 10. **Aner59** sails in second and **SCARABOCCHIO** manages to capture the last place on podium ahead of **DIKKEHENK** who long seemed to be the strongest contender for the third place.

SYC ranking results for ij

Full SYC ranking results

Summary for all results by ij

Total rank **#1** with **10 points**.

Used races (top 10 of last 30 races)

Race	Date	Final place	Points
Brisbane to Gladstone Yacht Race 2019	2019-04-19	1	1
SoCal 300 2019	2019-05-30	1	1
Tristan TIMED Race 2019	2019-05-02	1	1
Tokyo to San Francisco 2019	2019-05-15	1	1
Baltic 500 2019	2019-05-30	1	1
Van Isle 360 2019 Clockwise	2019-03-25	1	1
Kumage TIMED Race 2019	2019-04-01	1	1
Sardinia Cup 2019	2019-03-07	1	1
Migaloo Migration 2019	2019-06-19	1	1
Liberty Tall Ships Regatta 2019 - Race 1	2019-06-17	1	1

Figure 5: Finally