Log Hong Kong to Hainan – 2020

When I first started SOL-ling back in 2013, I had never heard of a router, but I did have the use of a few spreadsheet tools that, fed with a polar dataset, calculated optimum and max speed angles and a few other things. Still have'm. It took me the best part of a year, sailing SOP thus assisted, to record my first P1, making the usual beginner mistakes, i.e. sailing on optimum angles as soon as the course was upwind or downwind and never really knowing how much to deviate off a rhumb line to find better pressure or to make use of a changing wind direction.

But, in response to my late great friend psail's insistence, sometime in 2015 I downloaded an early version of QtVIm off the interweb, and I started to use this router-thingy to give me a guide as to where to steer. And in the early years of Qt that was really all it could do, since zoomed in, Qt showed and avoided a different coastline than the one that existed on SOL, and even more importantly, despite being uploaded with the same current weather grib that SOL would be using, the winds as interpolated by Qt tended to be stronger than the winds that obtained on SOL, especially when the winds were dialling down.

Both these issues were resolved a few years ago, but this race with a typhoon centered a few hundred miles south east of the rhumb line provided a perfect illustration of how significant that interpolation effect used to be. Below left you see how Qt agrees with SOL re the windstrength in the eye of the storm, using SOL ('u/v' or 'vector') interpolation, and to the right how Qt completely disagrees with SOL when using standard (or 'scalar') interpolation.

Ref : 23/10/202		44.114°E2'24	10,00 TO./O TI	1/ 27/22 20	.04 30.74	file 4.01 Ref	: 23/10/2020	40.96 42.99	44114°ES.94	46.05 44.97	42.60 4	0.60 38.86	37.25 filee
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5.20 38,11 41.1	44.88 48.20	50.75 51.00	48.93 47.44 45	.86 43.68 40	.41 37.27	34.09 5.38	38,37 41.49	45.22 48.74	51,65 52.83	51.13 49.34	47.46 4	4.64 41.17	37.80 34.49
5.55 38.78 42.1	46.36 49.97		52.92 51.52 49										
5.87 39.39 43.0	47.73 51.64	54.34 55.46	55.29 53.78 51	.40 48.56 43	.48 39.09	34,72 6.01	39.55 43.28	47.99 52.50	56.45 58.98	59.14 57.84	54.97 5	0.45 44.77	39.80 35.14
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3.23 37.10 41.3	47.05 53.06	58.71 55.03	38.91 33.29 49	.77 54.22 44	.99 39.32	34.91 3.28	37.34 41.71	47.73 53.75		52.47 51.74	58.89 5	5.99 46.09	39.91 35.34
2.77 36.00 39.5	44.30 49.56	54.30 53.27	45.70 42.93 50	.14 50.84 42	.49 37.20	33.08 2.84	36.23 39.92	45.20 50.59	56.27 58.31	54.25 53.65	56.79 5	3.01 44.44	38.69 34.16
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1.98 33.92 36.0	39.22 43.51	47.91 52.14	55.35 54.56 50	.11 45.34 39	.52 34.89	30.84 2.05	34.05 36.32	40.03 44.03	48.84 53.12	56.52 56.09	51.54 4	6.21 40.36	35.67 31.48
1.55 33.20 34.9	37.72 41.15	44.66 47.87	49.77 49.02 45	.56 41.17 35	.86 32.12	29.16 1.69	33.33 35.21	38.36, 41.69	45.53 48.73	50.86 50.39	47,11 4	2.55 37.10	33.18 29.94
1.24 32.52 33.9							32.61 34.10					8.88 33.83	30.70 28.40
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Obviously, standard 'scalar' interpolation gets it all wrong in the eye of the storm. Even if it is very unlikely there was anybody there to measure it, you can be sure that it won't have been blowing 50 knots there, and SOL interpolation which says 'flat calm' has it much more right. On the other hand, SOL interpolation shows the windstrength 'hunting' between less than 45 and more than 55 knots in a 360 degree arc about 0.5 degree (30 nm) out from the centre, whereas scalar interpolation says it is a pretty steady 55 knots plus (Storm Force 10), which surely is more right, and the better more cautious modelling of the forecast!

Anyway, back to the race, and I confess, without the benefit of the nowadays highly precise Qt routing, I doubt I'd have opted to sail at a hot angle for a passage through the Yechau Channel between Zhiwan Dao and Erzhou Dao, and I don't think too many would have gone for it IRL, given the conditions, if the race had been 'on'.

But, I did, and so did all my usual rivals. A first of just five WX updates followed almost immediately after safely clearing through (with thanks to that other great aid that has been developed in recent years, the AGL DC-checker). The very big and obvious storm was going to mean that those five WXs were not going to change the picture much; and much was going to hinge on where (exactly) and how (precisely) helmsmen would decide to gybe onto starboard. Too early, and you would sacrifice too much BS for too little DTF saved; too late and you'd be trading too much extra DTF for not enough extra BS.

Below you see my choice versus those of naccr and Wrmirekd, who in the end finished P2 and P3 behind me. My track is the purply one, WR's the light blue one and naccr's the mauvy grey one. So, both my competitors gybed slightly later than me, and naccr, like me, executed what Dingo has dubbed a 'proa' for a PL of c 7%, whereas WR gybed conventionally which would have dropped his performance to 90%. I simply gybed where Qt said I should, and it could well be that the other two did as well. There is an arbitrariness to Qt's solution after optimisation at the very detailed level, and in a short race (like this one) it can be the difference between first and second.

Many also gybed earlier than us and showed in the lead, but dropped back one-by-one as we now headed south west holding east of the rhumb line to stay in the big breeze. Slowly I added more westing, sometimes using the tightening TWA, sometimes in small changes of CC, until it was time to hop across a dip in the polar, which the other two got pretty right as well.

Things were very tight, and others were also in the frame. There was only one thing for it; sail by hand and stay awake. I don't do that very often anymore, but I think that the sailing by hand, changing from TWA to CC every couple of minutes, covering the fleet inside and outside of me, probably helped me as much as my gybe, which I really can't be sure was perfect. However, as almost always (except when I miss'm), the rounding of a last mark in the sea, definitely cost me a bit.

Approaching the finish, WR surprised me/us by tacking for the starboard end. It was marginally favoured (by 2 degrees), but in less wind. It was the wrong choice. Nevertheless, it made me think that all the way to the port pin was probably the wrong choice as well, so I tacked below it and held course freeing off on a constant CC to take a handy (for the SuperSOL, which I haven't given up on, and have never raced enough for in a year to have a chance) win.

Great racing. Thank you SOL and thank you all!

bonknhoot / October 2020