

A tricky new course in a tricky old boat, and with my wife and I on a bit of a roadtrip, and a big breeze across (rather than up or down) the course straightaway, I feared this one was not going to go bonk's way. But luck was with me.

Some TR's require routing skills, others little to none at all. This Shetland Run was of the "none at all" category. Surprisingly perhaps that characteristic actually increases the quantum of useful preparation work you can do if you have the time, simply because if you reduce the sailing area relative to the Earth to the size of a postage stamp on an oversized parcel, your wind is only going to be driven by a handful of grid points.

For this race, those were:

60.50N , 1.50W	60.50N , 1.00W	60.50N , 0.50W
60.00N , 1.50W	60.00N , 1.00W	60.00N , 0.50W
59.50N , 1.50W	59.50N , 1.00W	59.50N , 0.50W

Just 9 points for which TWD and TWS are given by the grib at three hourly intervals; well no, it is not actually TWD and TWS that are given, but U, the wind component up-and-down the lines of longitude, and V, the ditto along the lines of latitude. Now there is a handy bit of software which you can download from saildocs called ViewFax. It is a basic gribviewer; not a router. However, it has (well, old versions had anyway) a button that allows you to save the grib (which is compressed data) as a text file. Do this, and if you like to mess around with Excel, you now have hours of amusement pending.

You see the thing is with these 'postage stamp' runs with sharp corners and many legs, there are no routing options, and if perchance there are some options after all, they are of a secondary nature. So, when I have the grib converted into tab sheets (one for every three hours) in an Excel workbook, and nowadays I can do that automatically, I make a file of the waypoints for the route (zoom in on the SOL chart and Alt-click them one-by-one).

Finally, I get the polar, which I can either download from brainaid or spinnacer, and as you can imagine have generally done already. Now some of the point-to-point segments of the route will inevitably require beating or downwind gybing, or cross polar hopping. Given that I tend to have had the polars for a while, and that the analyses to determine the TWA, TWS pairs for beating, running and hopping are always the same, I can straightaway build a spreadsheet that determines the VMC I will obtain along each segment, assuming (an approximation) that the TWD, TWS (obtained by interpolation of the de-gribbed data over time and space) prevailing at the start of the segment (which was the end of the previous segment) is constant.

So, plug in an ETD (Estimated Time of Departure) for the route, and out comes the ETT (Estimated Total Trip Time, but two T's will do). Build a few macro's that iterate this calculation in three stages (roughly per 3-hour interval, more accurately per 10 min interval, and then finally per minute), and for every new WX issued, you have an answer.

So, I couldn't do that until I got home, and earlier in the week, any old eyeball (almost as good) was telling us all that the best runs were not going to be at the end of the TR period. But then a system came in quicker, and there was a window after all, and of several hours duration.

Starting on time is only half the battle, though. There is also performance loss mitigation. I got that wrong at Jarlshof; Kipper1258 and StIngF1 didn't. Well done you guys, and thank you SOL and NZL\_Scotsman for a great course.

bonknhoot, 20/08/2016