

Albert liked to think of time as a fourth dimension. Since SOL happens on a plane rather than in space (as they say in Barcelona, “¿qué?”), in SOL, time is the third dimension. So, imagine a cube with axes x, y and z, where x is latitude, y is longitude and z is time. Still with me? Now imagine a 3-D mesh of wires spaced at regular intervals holding that cube together, and that at each node in this grid you find a bit of data; the lot collectively known as a grib (with a ‘b’, huh!) file.

Well, if this data is from NOAA, those intervals between the nodes at best will be 0.5° of latitude and 0.5° of longitude and 03:00 hours of time. But when we are racing in SOL using data from NCAR/UCAR’s WRF model, these nodes of actual data are spaced at intervals of 0.05° of latitude and 0.05° of longitude and 01:00 hours of time.

So, that is $10 \times 10 \times 3$ more bits of data than you get from the best NOAA forecasts. That still leaves an infinite amount of points in plane-time (as opposed to E’s space-time) that you don’t have actual data for and therefore will have to hazard a guess about, but 300 x less of them! More importantly, no matter how elementary your guesses (let’s call them interpolation algorithms) are, your opportunity for being ‘wrong’ or rather in serious disagreement with somebody else’s guesses is significantly reduced.

Now those of us who route will be familiar with our routers’ tendencies to over-estimate TWS (in comparison to what our virtual yachts ‘actually’ encounter in SOL) when TWS drops below say 6.5kn. That is because SOL uses a different interpolation algorithm than most routers do. But of course at the nodes in the grid there can be no disagreement. And in the Western Isles, the longitudinal spacing of the nodes of a WRF grib file are just 1.5nm apart. Not much room for disagreement, then.

Long story short... when racing in WRF grib, TRUST YOUR ROUTER!

which is something that does not come altogether naturally to bonknhoot, but for Canna & Eigg – 2015, I decided I would force the issue and made the following preparatory course notes.

What actually happened I have added in italics.

1. Head in towards the coast at c 94.4° CC for a TWA of 56.1° , switch to constant TWA and then release TWA in small steps to clear the headland
Continue to wonder is there a trick to Starts for an early half jump lead, but if not, this did not work at all and bonk rounded the headland in the mid 20s.
2. Hug the coast and harden-up onto close-hauled at the next headland
Went to plan and a few places were regained.
3. Tack after you can clear Sanday, giving it a bit of room
Also executed as planned.
4. Stay on starboard tack on the outside of the curve in stronger TWS
Worked a treat taking bonk into the T10.
5. Consider putting in a hitch in towards Rum when TWS hits 11.6kn
Considered but not executed.
6. Tack immediately when you can lay the southern tip of Rum
Lined up a fraction too early, putting bonk into P1 temporarily, but rounded P6; could it have been better?
7. Sail the rhumb line to the northern tip of Eigg
Finger problem kept bonk high for a couple of server jumps; then decided to keep a bit of height for more TWS in the approach to Eigg.
8. Set a CC a few degrees free of opt upwind TWA to hit same c 0.8nm beyond the headland
Big electrical moment in the neurons; Lou’s rounding, OMG!
9. Tack early to clear the eastern coast of Eigg on a lifting breeze but in stronger TWS
Well timed, but was surprised and concerned to see rumskib and kenza and various others continue on further East after both having put in early hitches in towards the island.
10. Tack to lay the favoured southern end of the Finish
Well timed again and happy with the resultant P6 :)