Rhumb Line (RL) Route vs. Great Circle (GC) Route in qtVlm

There are several ways to depict this in qtVlm, and what we choose depends on the application. As a rule, the GC route is not notably shorter unless both departure and destination are above 45° Lat or so, and they are separated by 2 to 3, 000 miles or more. Nevertheless, the distinction in the constant RL heading and the initial GC heading is often important for tactical decisions under sail.

(1) **Ruler tool**. The measurement starts wherever you first right click the chart and choose Ruler tool (4th down from the top), or you can right click a POI, choose More options, and then Ruler tool, and the tool then starts precisely at that POI. But there is not a way to assign the destination to a specific POI. If you want that, you would just hover over the small POI symbol with the tool to measure from one POI to another. The tool then shows both RL and GC as in Figure 1, with the routes also drawn in.
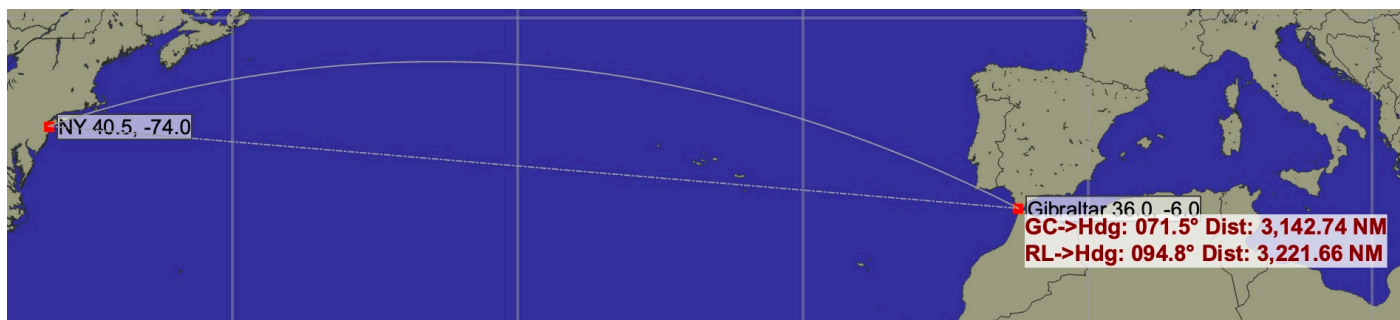

Figure 1. *Ruler tool from a specific POI to a cursor hover over another POI. The RL is a constant true heading; the GC heading varies along the route.*

(2) **Region Select tool**. Another quick way for approximate values is use the Region select from the toolbar (blue square icon) or shift and drag to draw a region from starting point to destination. This cannot be centered right on a POI, but just near it (hence a close but not precise value between specific points). Then you see a dynamic readout of the RL and GC data in the status bar, or let up the mouse, which leaves the region drawn on the screen, then cursor onto the region for a tooltip report of the data, as shown in Figure 2.

Figure 2. *Region select tool as a way to compare RL and GC values. Note some artistic license here: this is not a possible view. When you release the mouse the status bar clears. Then mouse onto the region to get the tooltip. Note too that we did not tag the precise locations we wanted with this method.*

(3) **Draw a line between POI.** This is a method of getting values from precise locations. After placing two marks at the desired locations, which in turn can be set digitally, right click the first one, and choose *More options,* then *Draw a line to another POI*, as shown in Figure 3. Then choose from the dropdown the POI to go to, and choose if you want GC, RL or both. You can set color and line thickness if desired. This will draw the line or lines you ask for, and a tooltip on the line gives the data for both RL and GC as seen in Figures 4 to 6. This is a valuable tool for seeing visually the difference in routes, and for setting marks along one of the routes if needed.
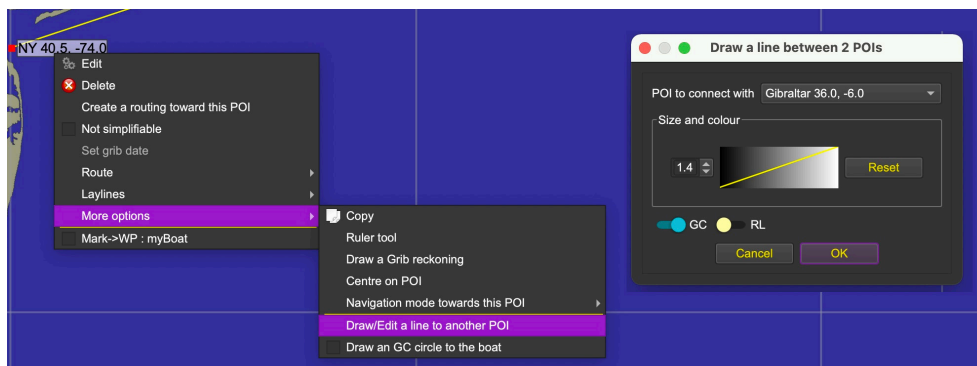

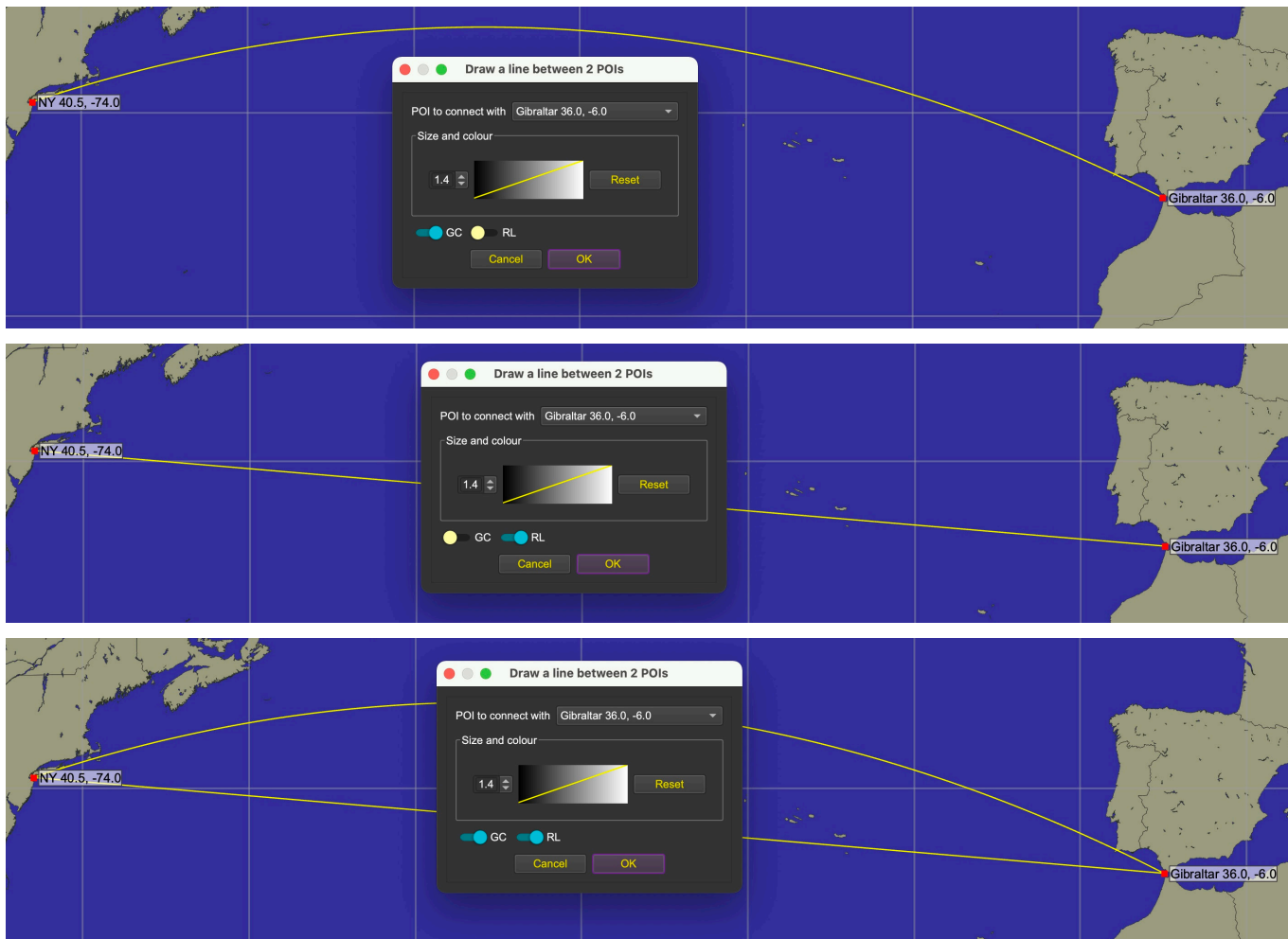**Figure 3**. Start with right click on a POI.

Figure 4. Lines between two POI with route options. A tool tip on either one gives data for both. To remove the lines, repeat the set up process, and uncheck the ones to remove.
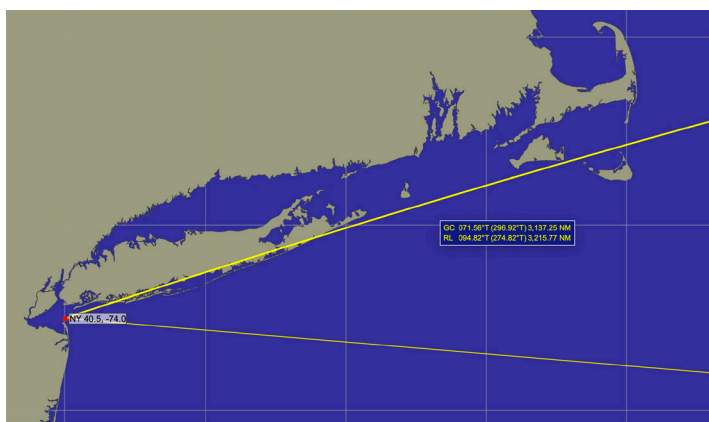

Figure 5. The GC route often goes too far north, either into land or in some cases into the ice. Nevertheless, we learn that in this case we could if productive, follow the coast all the way up to past Nantucket and still be on the shortest route.
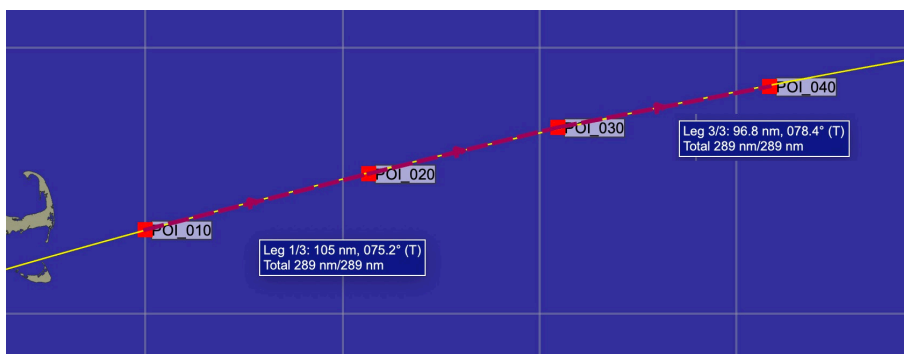

Figure 6. To follow a GC route, lay a pathway on top of it and then read the RL heading for each leg.