Course to Steer plot – not to scale. Variation = 6º W

1st July, at 0800 your boat is at position 50º 11’.00 N 004º 34’.50 W

You want to sail in the direction of the Bell Port Hand red buoy to the north of you. You estimate the boat speed will be 5 ½ knots in a strong Westerly breeze.

Plot your position fix and check it. Draw the COG through the bell buoy

How long will it take to reach the buoy? Distance = 5.5 miles, so about 1 hour.

Find the tide: HW Plymouth 0631 DST (adding the hour)

Range = HW 5.3m – LW 0.6m = 4.7m = Springs

Tide ladder

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Plot the tide from the fix; then arc off the boat speed across the COG. Join the end of the tide to the intersect – this is the Course to Steer True = 354º (T) = 000º (M)

You estimate leeway to be 5º, so head into the wind another 5º to give a course of 355º (M)

Speed over Ground = Fix to Intersect = 6.2 knots
You reach the Bell in less than 1 hour = (5.5/6.2) x 60 = 53 minutes