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

 1^{st} July, at 0800 your boat is at position 50° 11'.00 N 004° 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 $\frac{1}{2}$ 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

	0601	
HW	0631	
	<u>0701</u>	
HW+1	0701	
	<u>0801</u>	HW.2 Diamon
HW+2	0801	
	<u>0901</u>	

HW+2 Diamond B Tide= 061º(T) 1.4 knots Sp

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 = 354° (T) = 000° (M)

You estimate **leeway** to be 5° , so head into the wind another 5° to give a course of 355° (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

