

Course to Steer Process (Yachtmaster) – you know your present position and required Ground Track. You want to find the Course to Steer to allow for the tide, and stay on the Ground Track.

1. Plot the initial fix and CHECK it. Add the START time. For SPDST subtract 2 hours from the start time to find UT time.
2. Estimate boat speed through the water.
3. Draw ground track (2 arrows) from fix *beyond* your destination D.
4. Estimate approx time of passage = distance to destination / speed
5. Determine tide set and drift for each hour of the passage – normally one hour, but could be ½ hour or more than 1 hour.

1. Write down time of High Water for Standard Port (Victoria on RYA charts), add the DST hour if necessary. Find Range – Springs or neaps?
 2. Add and subtract 30 mins to give start and finish of HW Hour.
 3. Step forward or back till the passage time ENDS to find time of passage relative to HW

HW							
-1	0645	+1	+2	+3	+4	+5	+6
0515	0615	0715	0815	0915	1015	1115	1215
							1315

Look up the Tide diamond or Tide Atlas for direction and speed of tide – springs or neaps? You may need to interpolate the tide speed if the Range is between Spring Range (4.9m) and Neaps Range (2.4m). See ‘Tidal Streams’.

Plot the tide from the FIX to point T (3 arrows)

6. Set your dividers for boat distance travelled, based on boat speed S, from **end of tidal stream plot** to cross the ground track at intercept X. (**NEVER** join the tide to the destination!)
7. Use plotter to find bearing T to X of **Course to Steer (° T)** - 1 arrow
8. Apply Leeway if present – into the wind.
9. Apply Variation to find Magnetic Course ° (M), then find Deviation (back page of Almanac) to get the Compass course
10. Speed Over Ground SOG = Distance from Fix to X

$$\text{Time to D} = \frac{\text{Distance FIX to D}}{\text{SOG}} \times 60 \text{ minutes (for 1 hour passage)}$$

