## Axe Yacht Club

## RYA Yachtmaster Shorebased Course 2021

## One to try!

Take variation as 6 W and use the deviation curve in the Training Almanac
Taken from a yacht's log.

| Time | Log | Co | Wind | L'way | Narrative |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1500 | 27.7 | 265C | NE3 | - | South Head Lt bears 342M |  |
| 1530 | 31.2 | 265C | NE3/4 | - | South Head Lt now bears 068M (Tidal stream 1500 <br> $/ 1.2$ knots) |  |

Find the yacht's position at 1530.


## Solution:

Course and bearing conversions

| C | D | M | V | T |
| :---: | :---: | :---: | :---: | :---: |
| 265 | $(-) 4 \mathrm{~W}$ | 261 | $(-) 6 \mathrm{~W}$ | 255 |
|  |  | 342 | $(-) 6 \mathrm{~W}$ | 336 |
|  |  | 068 | $(-) 6 \mathrm{~W}$ | 062 |

Plotting

Stage 1 - Plot 1500 bearing.


Stage 2 - Chose a point along this bearing line. (Shown in red.)

Stage 3 - Lay off water track from this position. (Shown as green line.)

Stage 4 - Arc off distance run (3.5nm) along the water track. (Shown in orange.)


Stage 5 - Lay off the tide from the orange mark on the water track (blue line) and mark the end of this as the EP (blue triangle).


Stage 6 - Draw a line parallel to the first bearing line through the EP. This is the transferred position line. (Shown in red with two arrow heads.)

Stage 7 - Lay off the 1530 bearing to South Head (mauve line). The intersection of this line with the transferred position line is the vessels EP for 1530 (large black triangle).


The final position, as shown in the diagram, may be slightly out because of the drawing system used to illustrate the plotting process. This also accounts for the lack of symbols on some of the lines used. The actual final position of the EP is $46^{\circ} 05.2^{\prime} \mathrm{N} / 005^{\circ} 53.6^{\prime} \mathrm{W}$.

