

Alan Howell's Christmas Quiz.

Questions

1. It's 8PM on a warm sunny August eve and you like the idea of a night at anchor in Cawsand. You have ample lovely food and drink aboard. You would like 1m clearance under your keel at minimum, but careful searching reveals that there are no tide tables on board (mental note: make sure you check next time you take over a yacht!). No internet signal either. All is not lost as you made a note of the tide times when you were planning the trip:

Plymouth HW 17:17 UT , 5.4 m, LW 23:39 UT, 0.9 m

Echo sounder reads depth under keel. What depth should it read when you anchor?

2. Our meetings are appropriately on the water. However, the venue has a legendary connection to another nearby major waterway. What is the connection?

Answers

1. Surprisingly there was no correct answer to the anchoring depth question. Common errors were assuming that the HW and LW heights of tide given were depths over the ground at the anchoring position (they are height above chart datum, LAT) or needing to know the draught of the yacht (this is irrelevant as the sounder reads depth under the keel). All that matters is how far the tide will fall from the time of anchoring to the time of LW, plus the 1m safety clearance you want. With no tide tables to hand, use the rule of twelfths as a good approximation. Anchoring at 8 pm BST is about 2h after HW at 17.17 UT, the tide will have fallen by 3/12, with 9/12 of the range still to fall. This is $9/12 \times 4.5 = 3.375$ m, so anchoring at a depth of about 4.4m will give you 1m clearance. If you approximate by taking 0.4m as 1/12 of the range it would give 4.6 m. We received answers between 2.9 and 5.4 m, but none near 4.5 m. (The Plymouth tidal curve would have shown that the height at 8 pm was actually 4.6 m, so it had a further 3.7 m to fall.)
2. Second question - Our meeting venue has a legendary connection to another nearby major waterway. What is the connection? - the answer is that we meet on board 'Sabrina' which is the Roman name for the Severn (Hafren in Welsh), the name of a mythical character who was either drowned in the river by her stepmother, or was one of three sisters who chose the Severn as a way to reach the sea, depending on which legend you believe.