

Day Skipper Knowledge Self Test

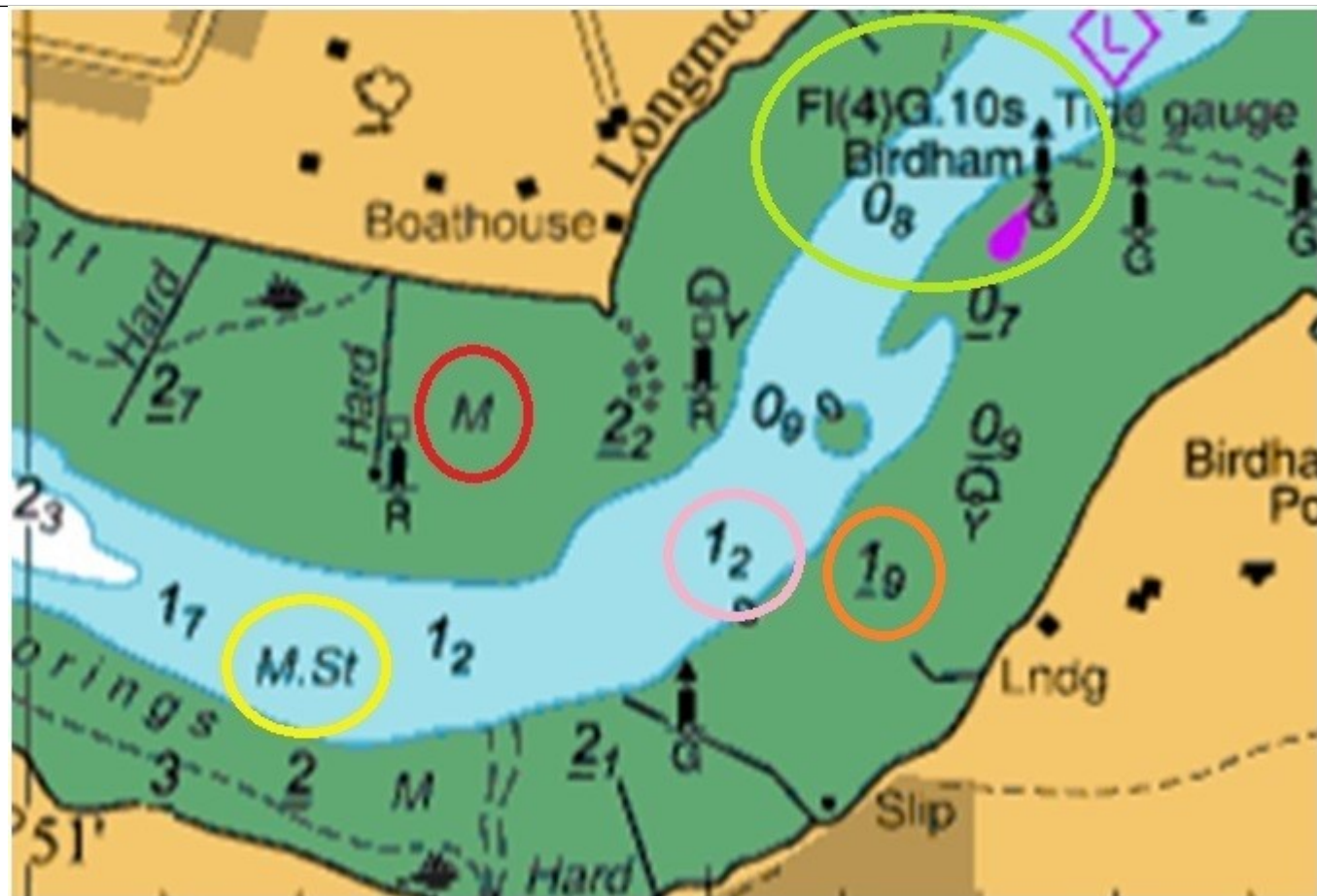
If you enroll on a RYA Day Skipper practical course it is assumed that you have navigational knowledge to [Day Skipper shorebased ability](#). This little test will help you gauge your current level and help you decide if you need to do the theory course. You can mark yourself in this test - the answers are at the end for you to check how well you did. It's also well worth revising your theory knowledge prior to the course, especially if it is a little while since you took your theory course and you might be a bit rusty. If you book your RYA Day Skipper theory online course with [Sail Boat Project](#) we'll give you a £50 discount when you book 5 days of a practical course.

Section 1

In this section from a chart each circle contains some useful information. Can you say what each of the following indicate?

What is shown in:

1. The red circle
2. The yellow circle
3. The pink circle
4. The orange circle
5. The green circle



Extra question - Do you know what is meant by Chart Datum?

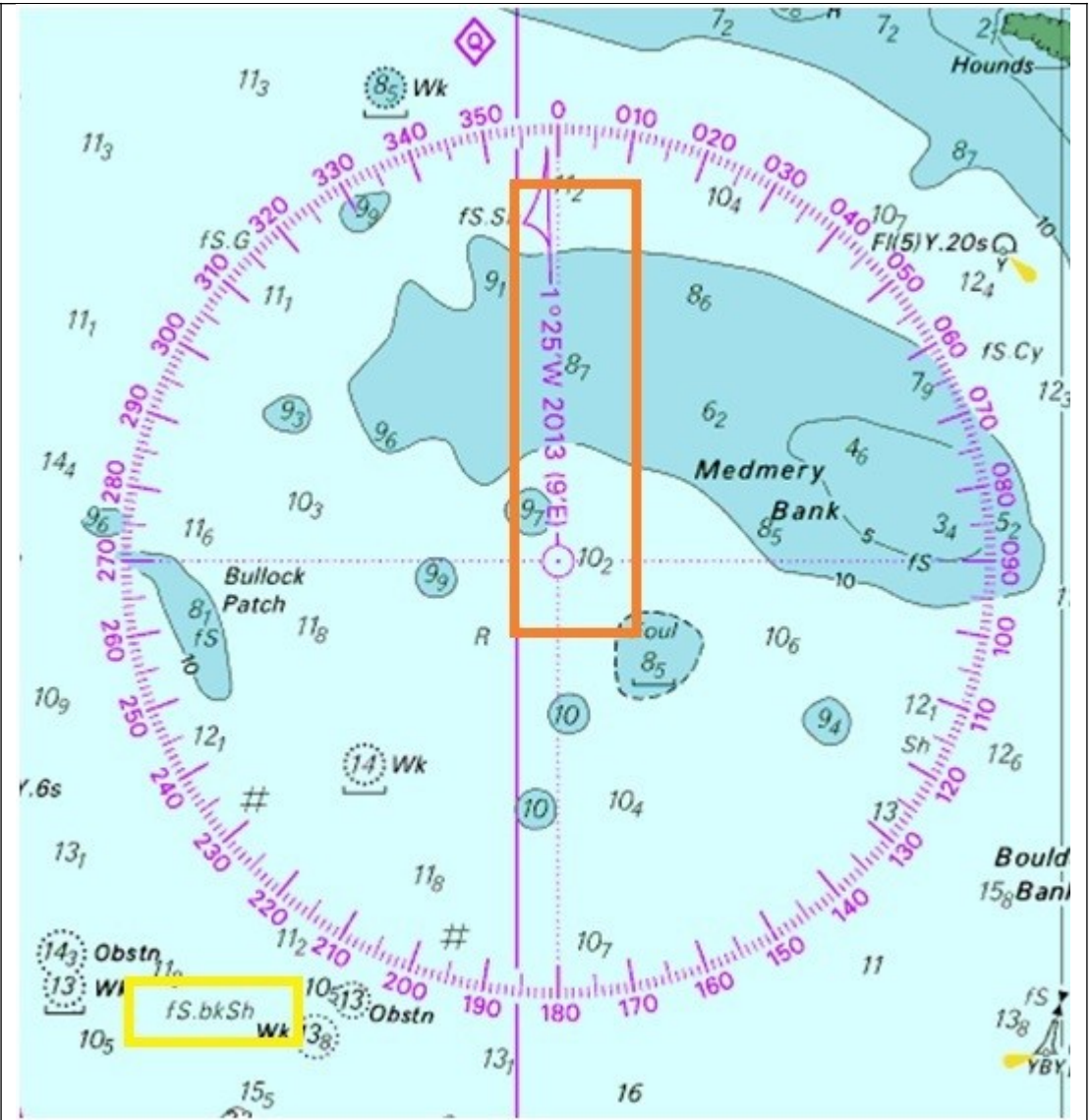
Section 2

In the following section from a chart each rectangle contains some useful information. Can you say what each of the following indicate?

What is shown in:

1. The orange rectangle
2. The yellow rectangle

What is the magnetic variation at this location in 2018?

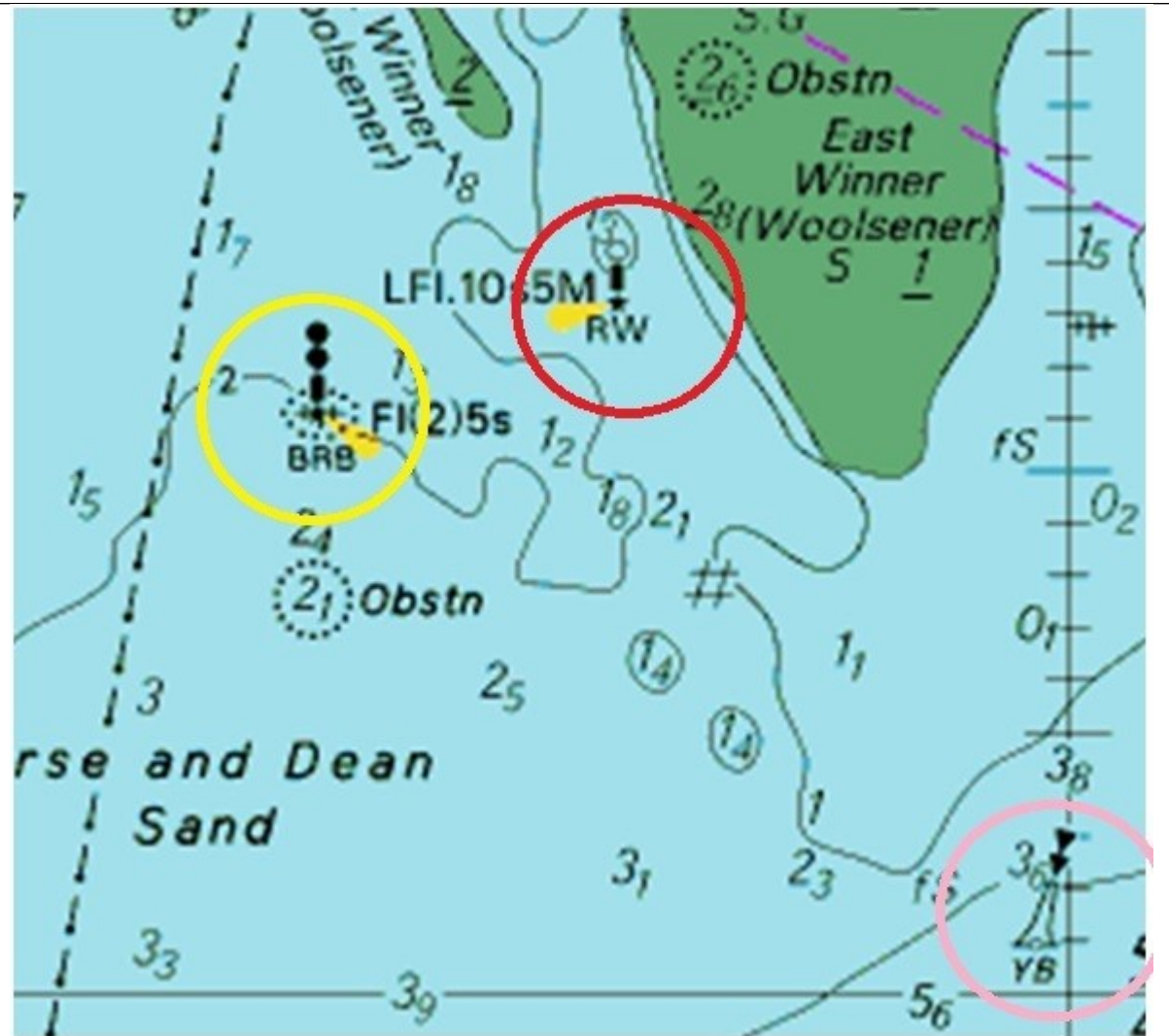


Section 3

In this section from a chart each circle contains some useful information about buoyage. Can you say what each of the following indicate?

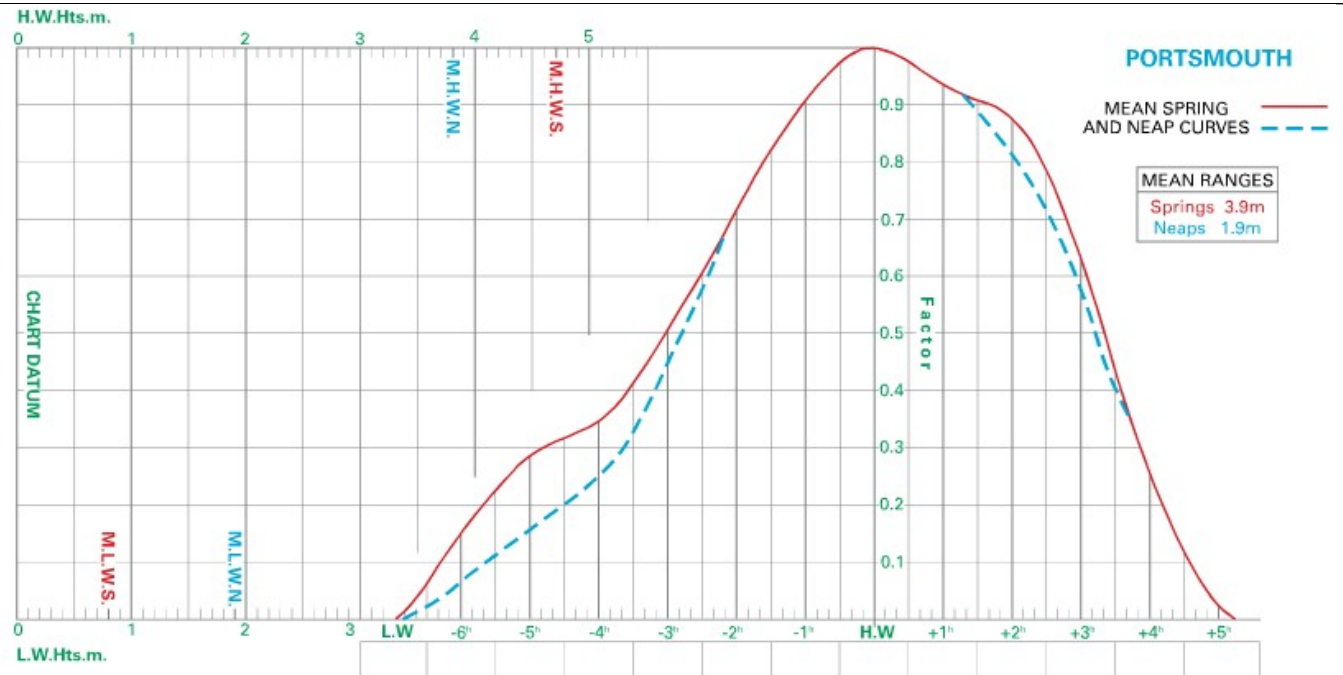
What type of buoy is shown in each of the following, what colour is it, and what does it have as its top mark:

1. The red circle
 - a. Type -
 - b. Colours -
 - c. Top Mark -
2. The yellow circle
 - a. Type -
 - b. Colours -
 - c. Top Mark -
3. The pink circle
 - a. Type -
 - b. Colours -
 - c. Top Mark -



Section 4

Using the tidal curve and tidal times opposite, see if you can find out what the rise of tide will be at Portsmouth at 11am BST on Sunday 1st July 2018. Pinpoint accuracy is not essential.



JUL 2018

Portsmouth

GMT

Add 1 hour for BST
End of Mar to end of Oct

01	01:05 4.38m	02	02:20 4.23m	03	03:00 4.13m	04	03:44 4.03m	05	04:34 3.94m	06	05:33 3.90m	07	06:38 3.92m
	06:26 1.11m		07:43 1.27m		08:26 1.38m		09:12 1.49m		10:05 1.58m		11:04 1.63m		12:06 1.61m
Sun	13:36 4.38m	Tue	14:53 4.27m	Wed	15:34 4.19m	Thu	16:20 4.12m	Fri	17:13 4.08m	Sat	18:12 4.08m	Sun	19:15 4.15m
	18:44 1.40m		20:05 1.59m		20:51 1.69m		21:42 1.77m		22:39 1.80m		23:41 1.77m		

Answers

Section 1

- The red circle shows that the sea bed at this location is made up of mud.
- The yellow circle at this point shows that the sea bed is made up of both mud and stones.
- The pink circle shows that the depth at this location will fall to 1.2 metres at Chart Datum
- The orange circle shows that at the level of Chart Datum the sea bed at this location will rise 1.9 metres above the water - we say that it dries 1.9 metres.
- The green circle shows a beacon, i.e. a post which is fixed to the ground. It is a Starboard Hand Mark (SHM) and is coloured green, and it is called Birdham. At night it has a light (shown by the purple mark on the chart), which flashes four times in succession, followed by a short period of darkness, and it repeats the flashing cycle every 10 seconds.
- Extra question - Chart Datum (CD) is an arbitrary height of water from which depths and heights of water on a chart are referenced. Charts produced from UKHO sources use Lowest Astronomical Tide (LAT) on which to base this measurement in combination with a mean air pressure of 1013 millibars. LAT refers to the combined gravitational effect of the Moon and Sun together. It is therefore possible to predict tidal heights relating to CD for many years into the future. Atmospheric pressures higher than 1013 millibars will depress sea levels by 1 centimetre per millibar, and correspondingly pressures lower than 1013 will allow a similar rise in water levels.

Section 2

- The orange rectangle shows that the magnetic variation at this location was 1 degree 25 minutes West in 2013. Since there is a 9 minute annual swing to the eastward in the variation, then by 2018 the variation at this location will have become 0 degrees 40 minutes West.
- The yellow rectangle shows that the sea bed at this location consists of fine sand and broken shells.

Section 3

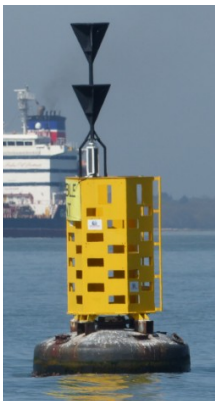
- The red circle shows a Safe Water Mark. It is painted in red and white vertical stripes, with a red ball on top. Here is a typical example.



- The yellow circle shows an Isolated Danger Mark. It has black and red horizontal stripes, with a top mark of two black balls. This is a typical example.



- The pink circle shows a South Cardinal Mark. It is yellow at the top and black at the bottom, with a top mark of two downward facing arrows. Here is a typical example.



Section 4

The rise of tide at Portsmouth at 11am BST on Sunday 1st July 2018 will be approximately 2.4 metres.

Taking low water as being 1.1 metres at 0626 UTC (0726 BST), and high water as being 4.4 metres at 1336 UTC (1436 BST), we can see that the range of tide on that day will be about 3.3 metres, which is at the higher end of the springs range of 3.9 metres.

11am BST = 10am UTC, so we have to allow for that as well when making our calculations.

Further exercises for you to test your knowledge on:

<http://www.sailtrain.co.uk/lrpcs/shapes.test/test.partc.rules24to31.htm>

<http://www.sailtrain.co.uk/lrpcs/test.sounds/test.sounds.lights.htm>

<http://www.sailtrain.co.uk/lrpcs/lights.test/test1.htm>