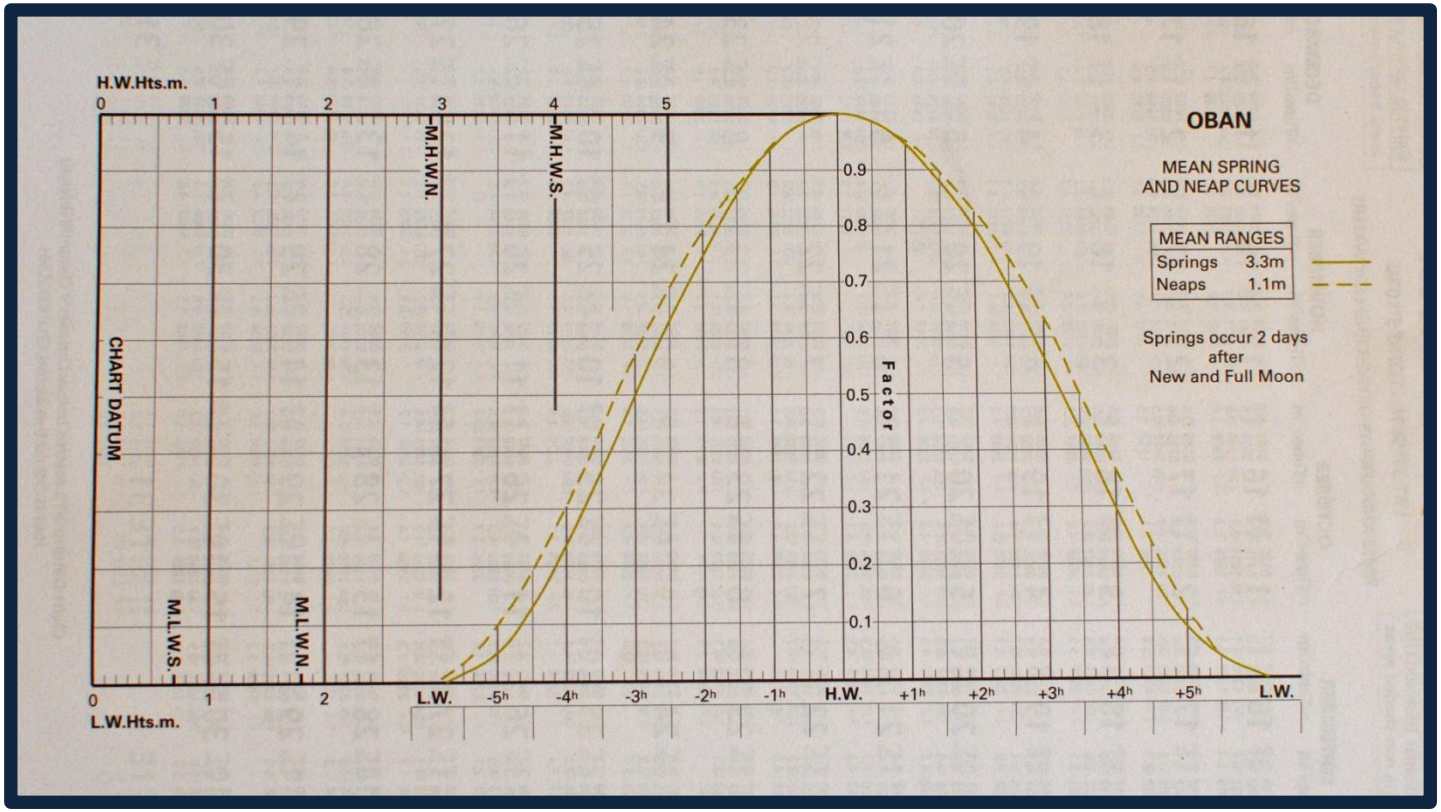


USING TIDAL CURVES

A practical example of using a tidal curve for a standard port calculation

Tidal Curves

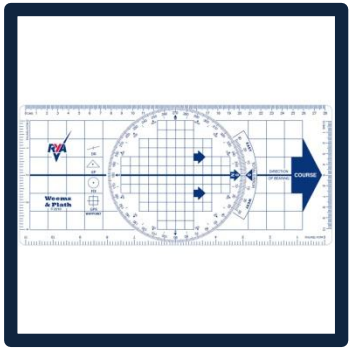
Working out when there will be enough water to enter a channel or port

You Will Need

RYA Almanac

Pad of paper, pencil and rubber

RYA Chartplotter



RYA Chart 4

Question

A skipper entering PORT FRASER wishes to use the Inner Swashway

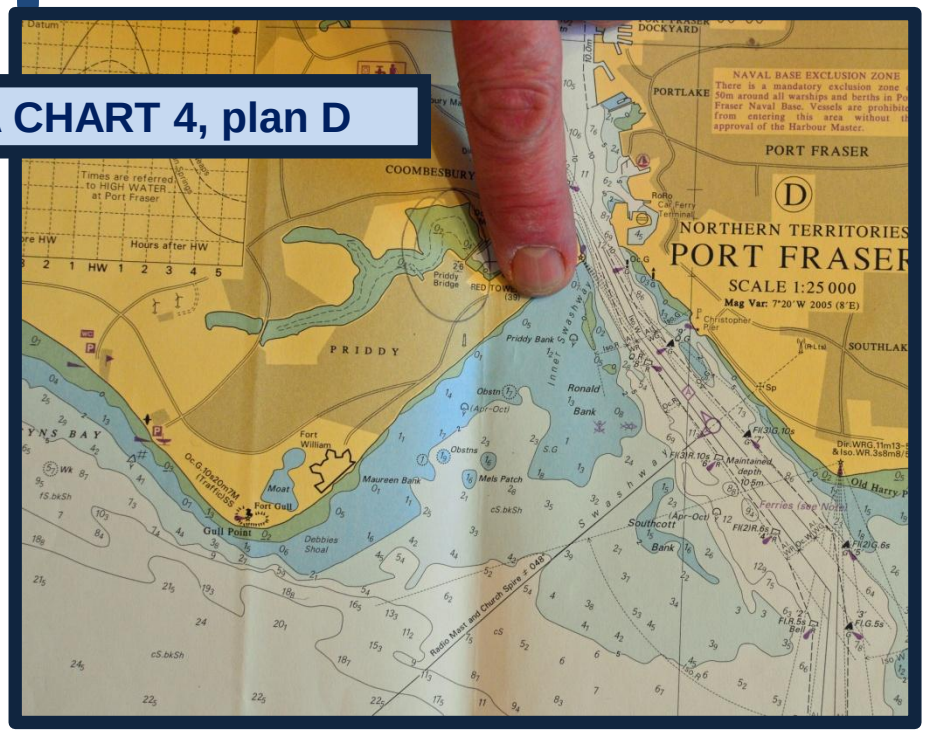
What is the least depth shown in the Inner Swashway on RYA chart 4, plan D?

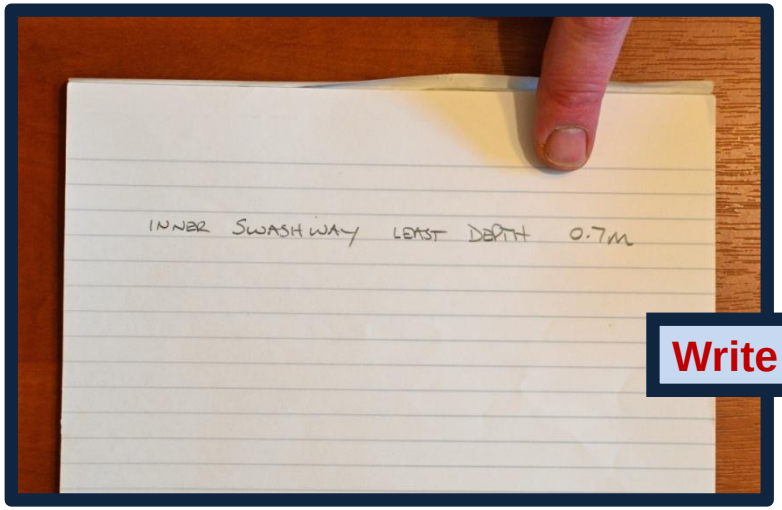
The boat has a draught of 1.5m and the skipper wishes to have a clearance of 1.0m, what height of tide is required?

What is the earliest time before HW that the boat can follow the Inner Swashway on the evening of Sunday 26th May

Least Depth on Chart

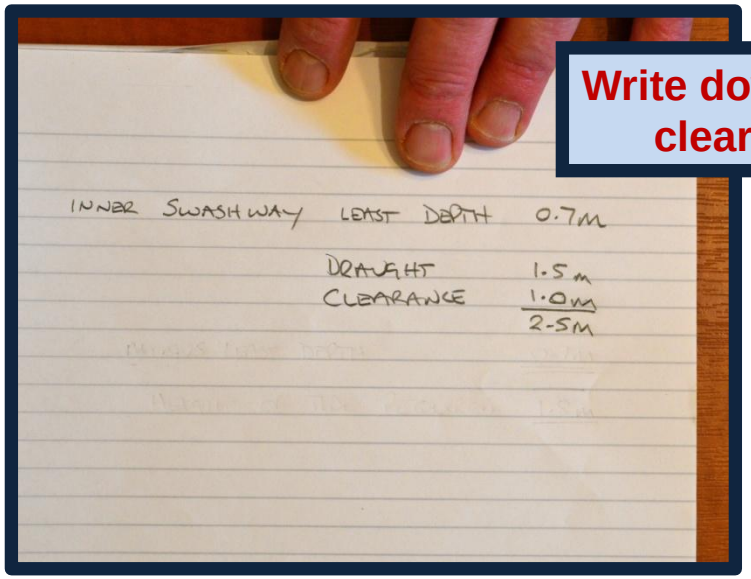
Find INNER SWASHWAY on RYA CHART 4, plan D



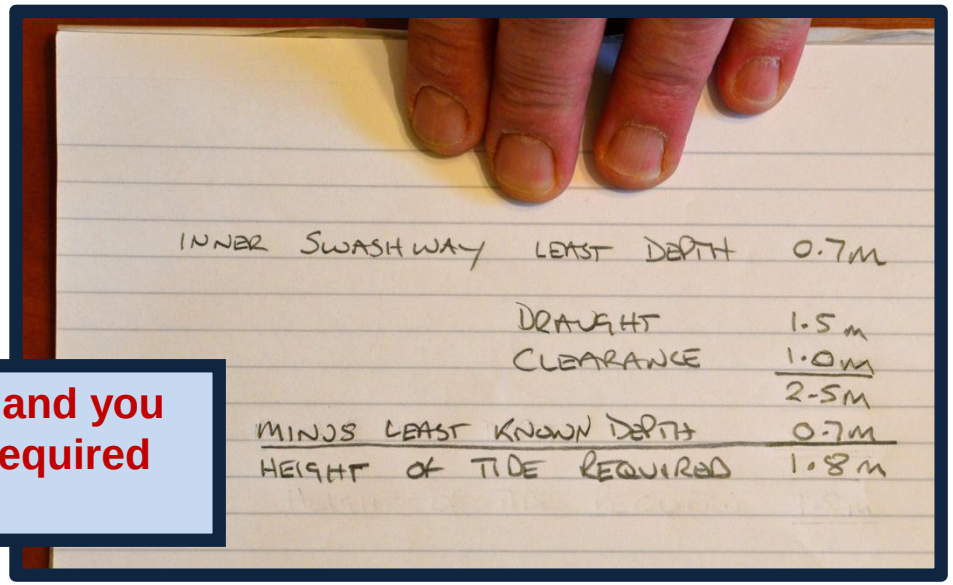


Write down the least depth – 0.7m

Height of Tide Required



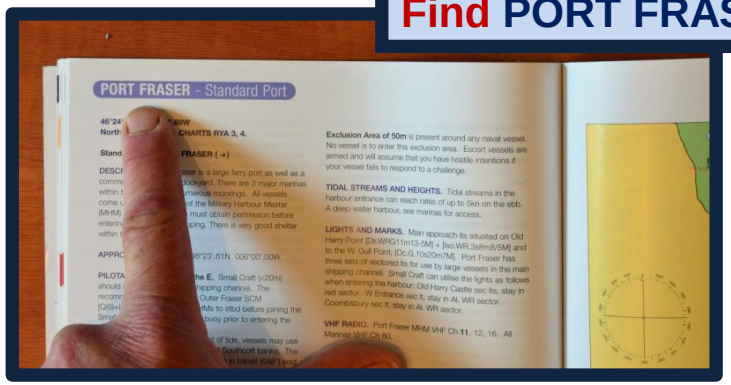
Write down and add up the draught of the boat and the clearance required – 1.5m + 1.0m = 2.5m



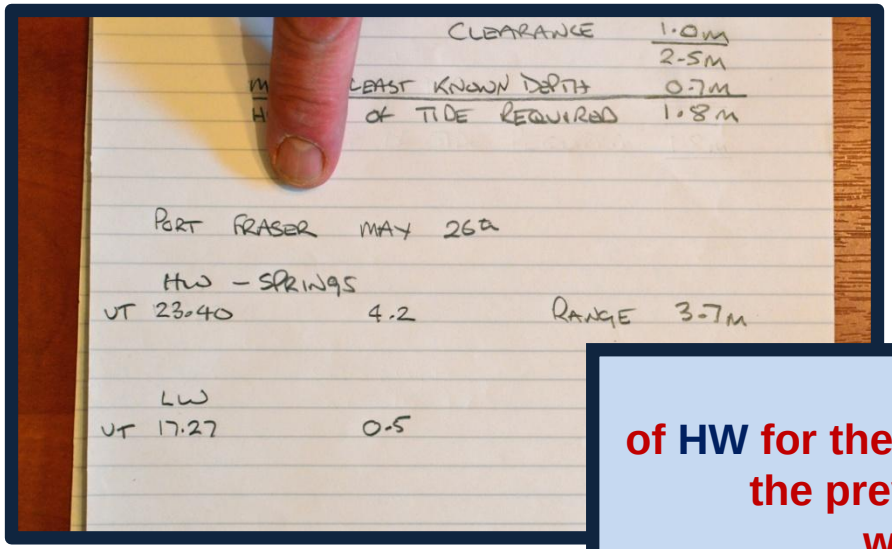
Take away the least known depth and you now know the height of tide required
2.5m – 0.7m = 1.8m

Time of Tide

Find PORT FRASER in the RYA ALMANAC (from page 46)

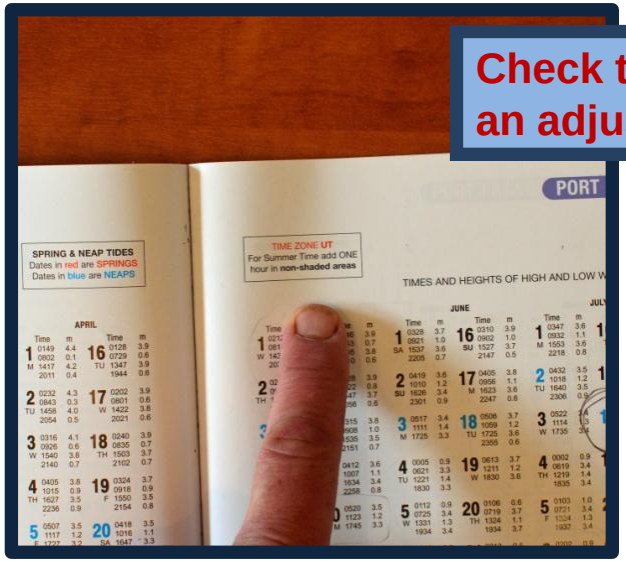


Look up 26th May and circle it with pencil (page 49)

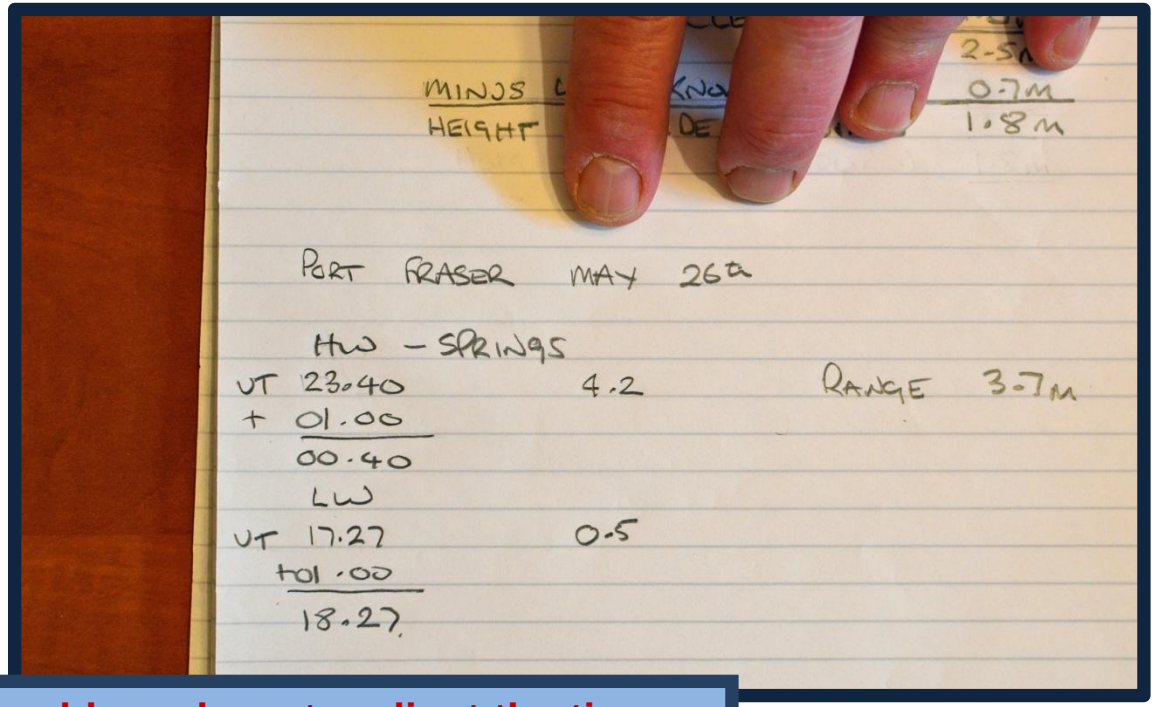


Write down the time of HW for the evening and the heights for HW and the previous LW, work out the range and whether it is springs or neaps

Time of Tide



Check to see if you need to make an adjustment for SUMMER TIME



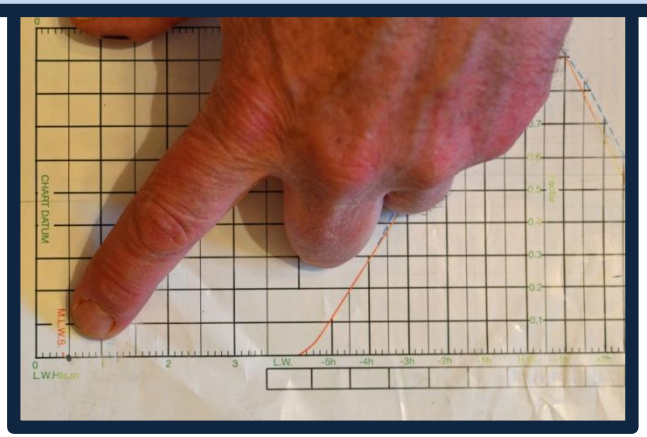
You can see you need to add one hour to adjust the times

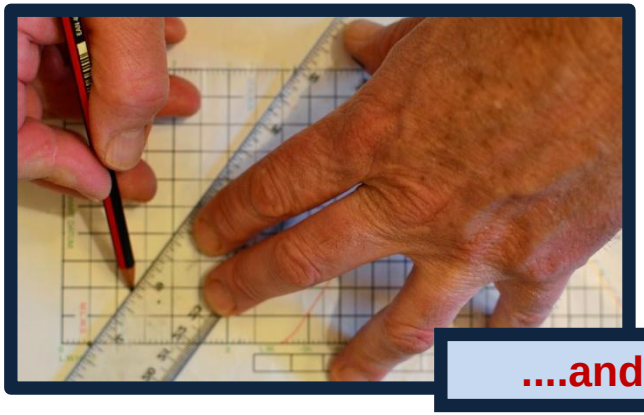
Using the Tidal Curve

Now you can start to use the tidal curve. Firstly, find the tidal curve for PORT FRASER (page51)

Mark the height of tide for that day at HW – 4.2m

Mark the height of the previous LW – 0.5m

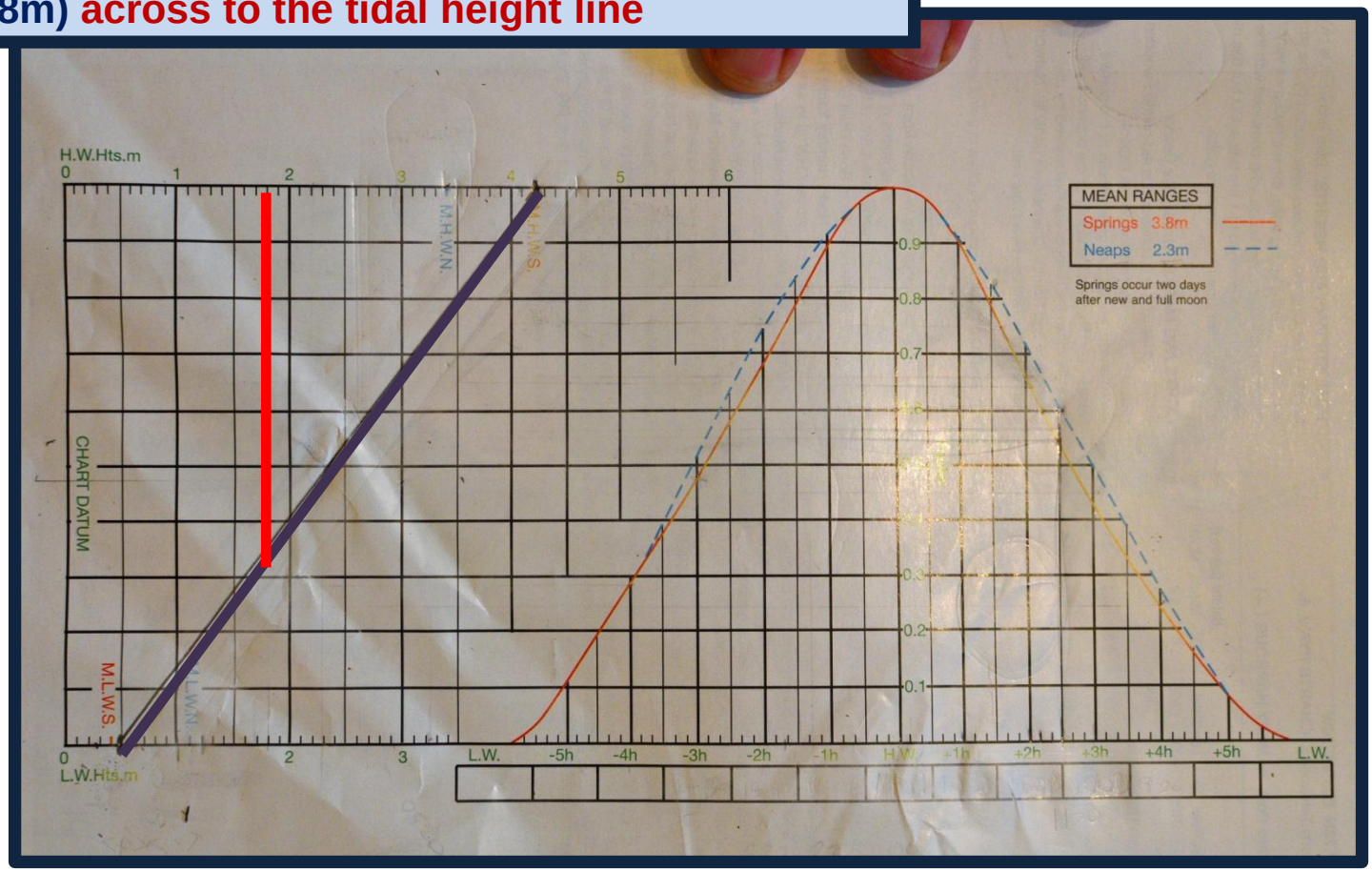




....and draw a line between the two

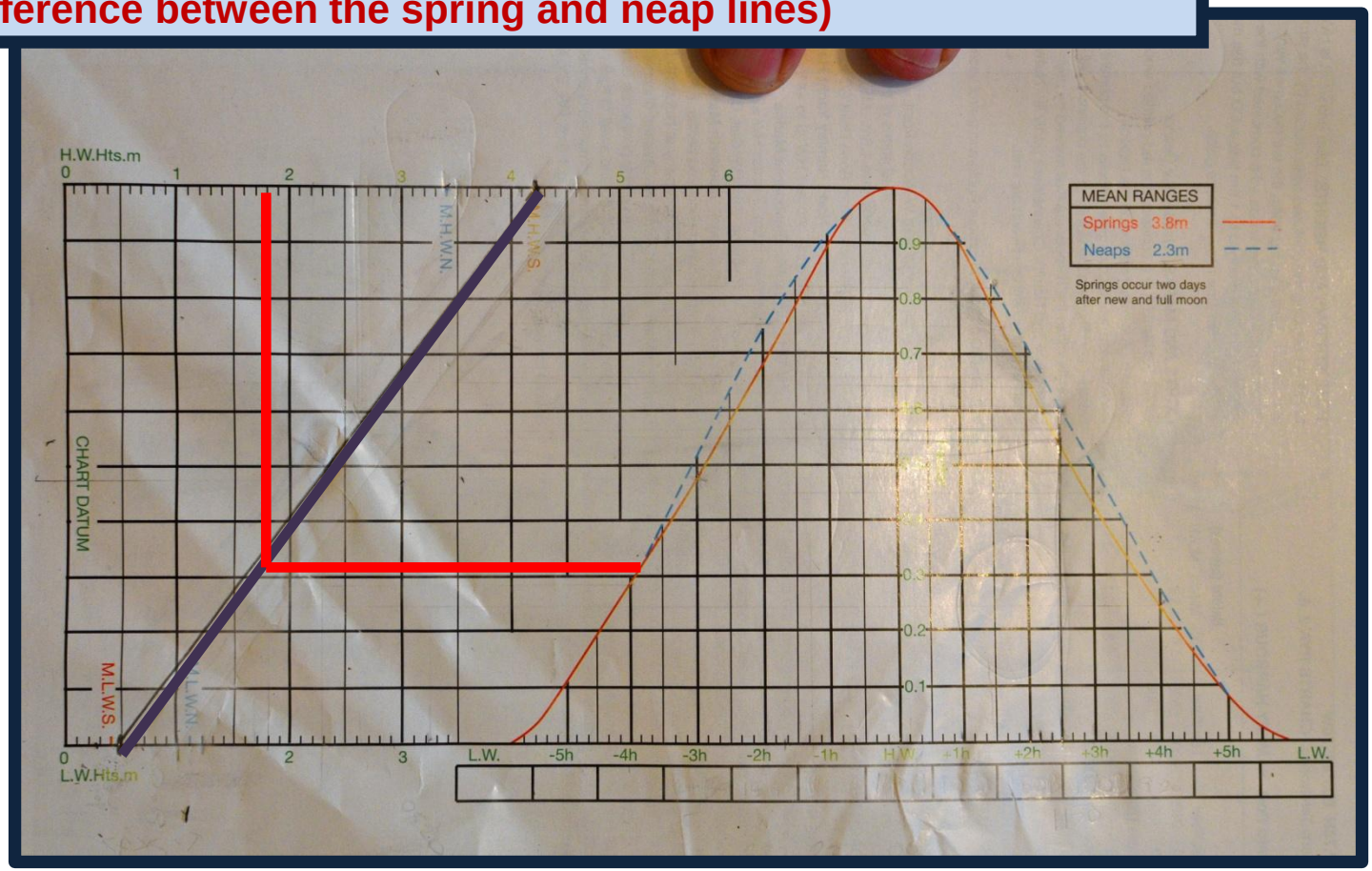
Using the Tidal Curves

Now draw the line for the depth you require (1.8m) across to the tidal height line



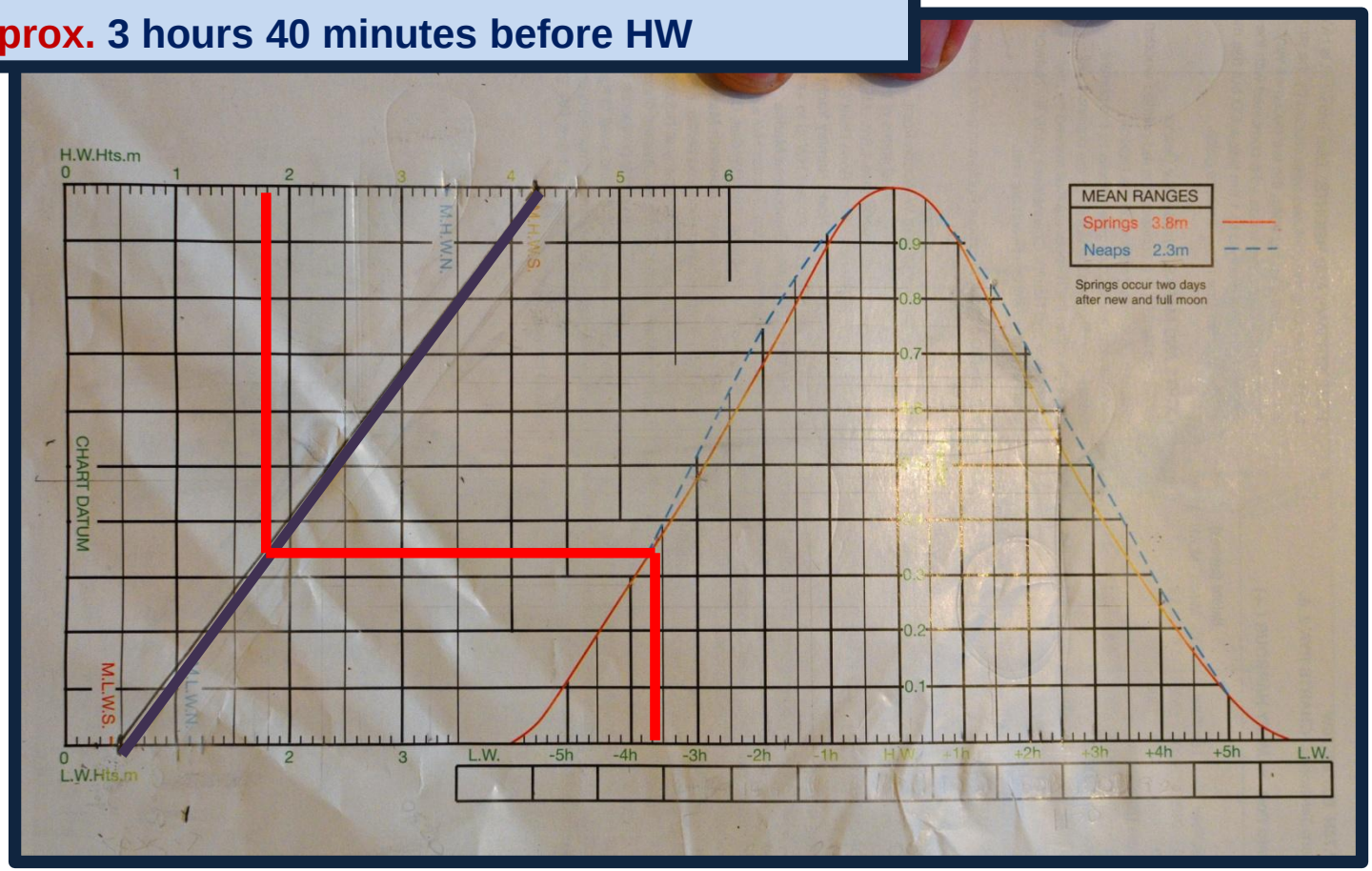
Using the Tidal Curves

Then draw another to the tidal curve (you can see there is little difference between the spring and neap lines)



Using the Tidal Curves

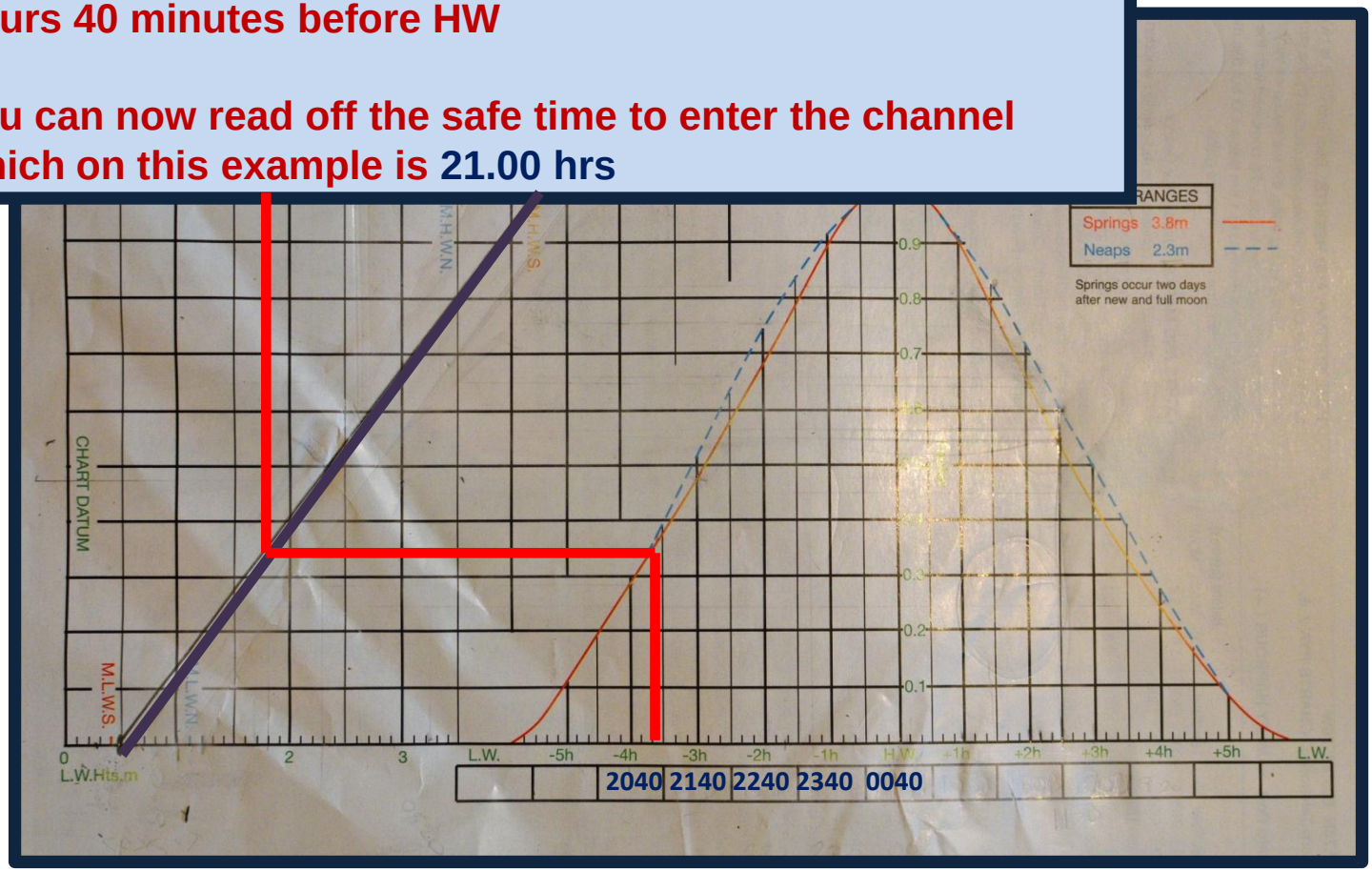
Now you can draw the final line from the curve to the time-line. You can see it hits the time-line approx. 3 hours 40 minutes before HW



Using the Tidal Curves

The last job is to add the time of HW and work it back to 3 hours 40 minutes before HW

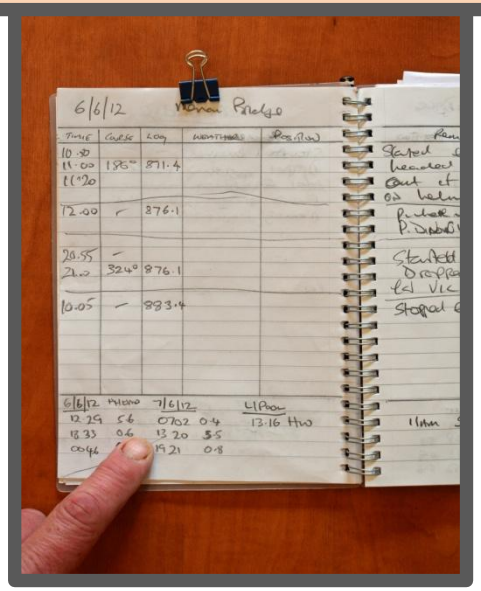
You can now read off the safe time to enter the channel which on this example is 21.00 hrs

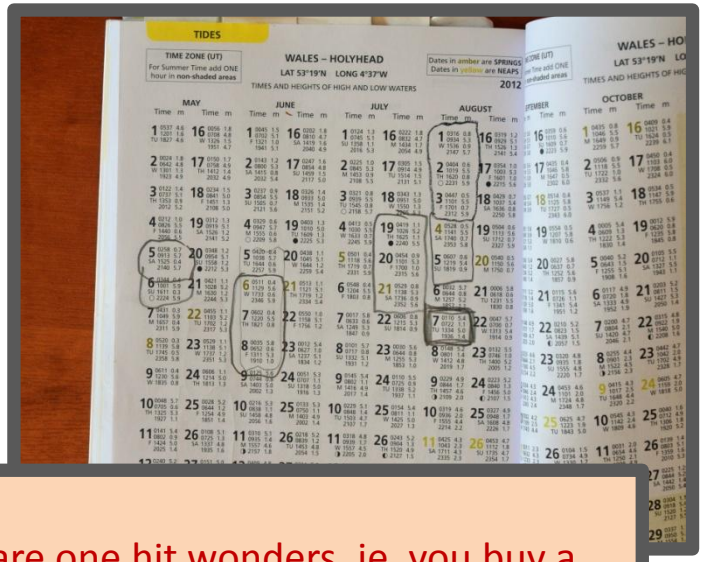


Top Tips

TOP TIP

In the real world I write down my tidal information in my **LOGBOOK** on the page that I intend to use during the passage. That way I always have the information to hand when I need to refer to it.

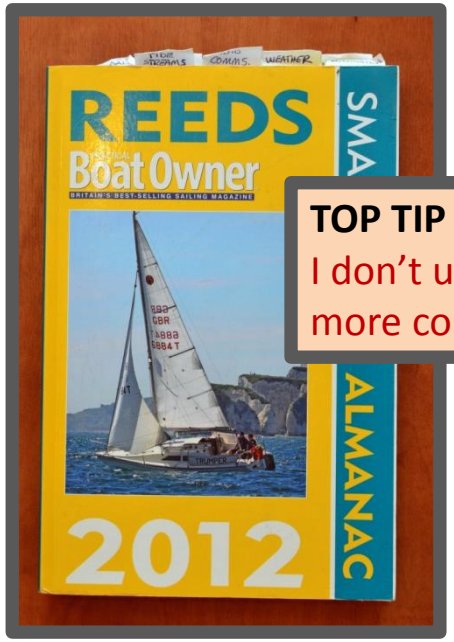




TOP TIP

As almanacs are one hit wonders, ie, you buy a new one each year, I always circle the range of dates I am using. This is so I don't get confused and copy the wrong data and it makes checking much easier and quicker.

Top Tips



TOP TIP

I don't use a full almanac and prefer the **PBO Cruising Almanac**.....it's more compact, better value for money and has all the information I need.

TOP TIP

Almanacs have load of pages of similar looking information. To make it easy to find tide times of ports I often use, I make tabs out of stickers. This way I can find the information I need quickly when I need to refer to it.

Further Reading

We highly recommend Tim Bartlett's
RYA Navigation Handbook (G6)

You can buy a copy of this book by visiting our on-line shop

www.penguinsailing.com