

# TIDAL TIMES & HEIGHTS

**Working out tidal times and heights for  
Secondary Ports using tidal curves**

# Secondary Ports

**A practical example of using a tidal curve to work out the times and heights of HW and LW at a secondary port**

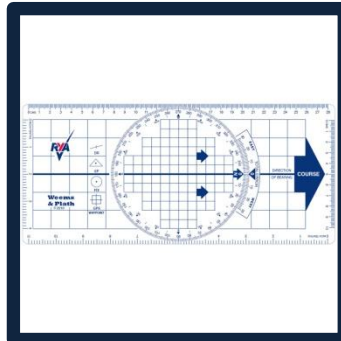


# You Will Need

**RYA Almanac**



**RYA Chartplotter**



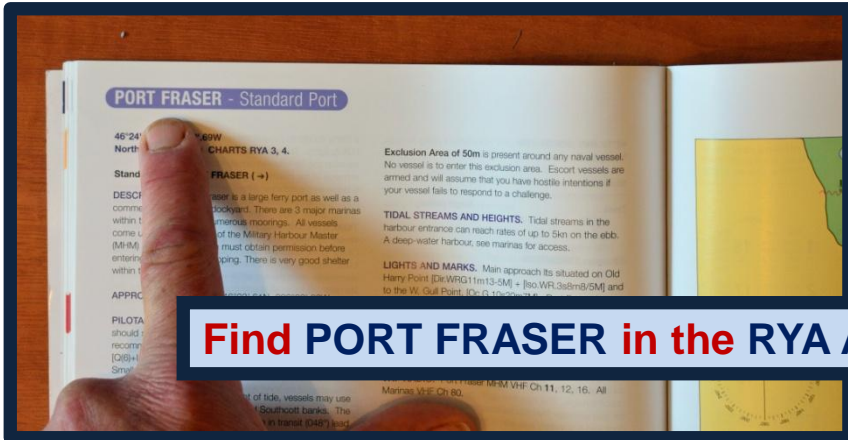
**Pad of paper, pencil and rubber**



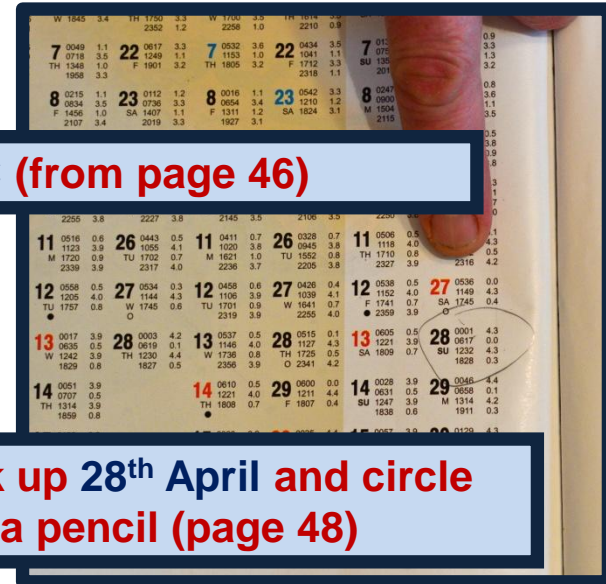
# Question

- **What is the time and height of HW at PORT FRASER in the early morning of 28<sup>th</sup> April and the height of the preceding LW?**
- **Work out the time and height of HW and the height of the preceding LW at ROZELLE COVE.**
- **What is the tidal height at ROZELLE COVE at 21.53 on the evening of 27<sup>th</sup> April?**

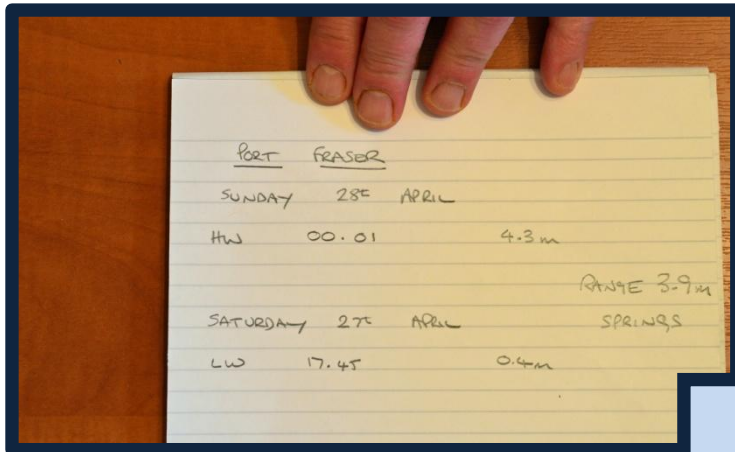
# Time of Tide



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



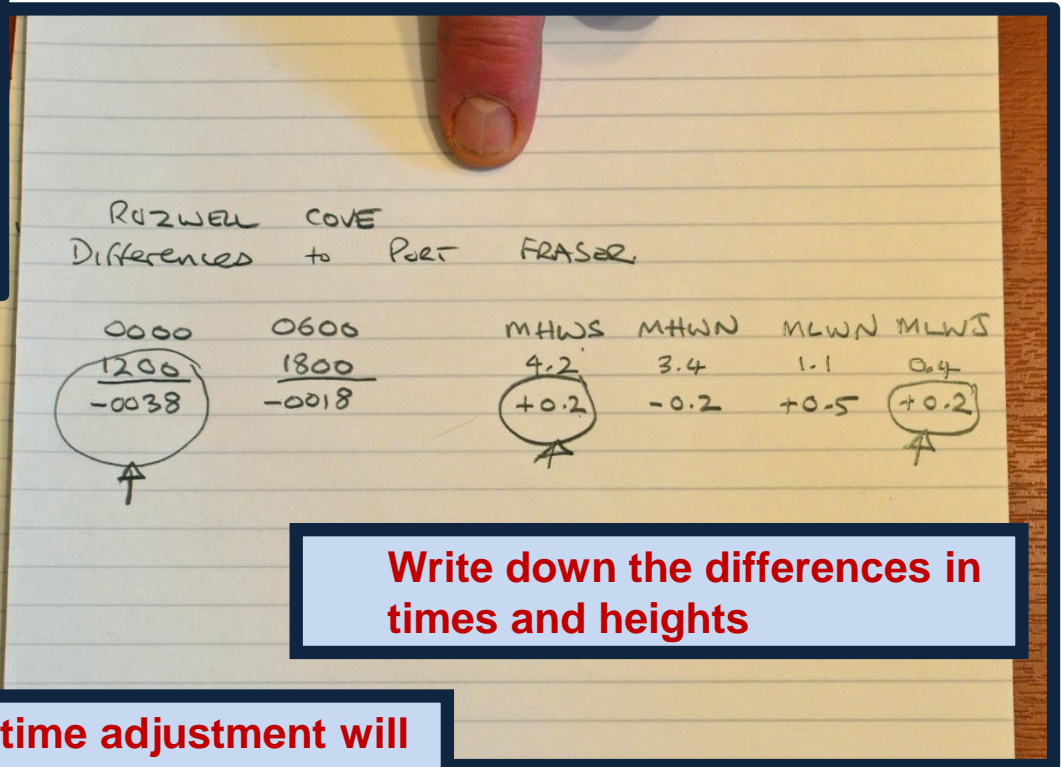
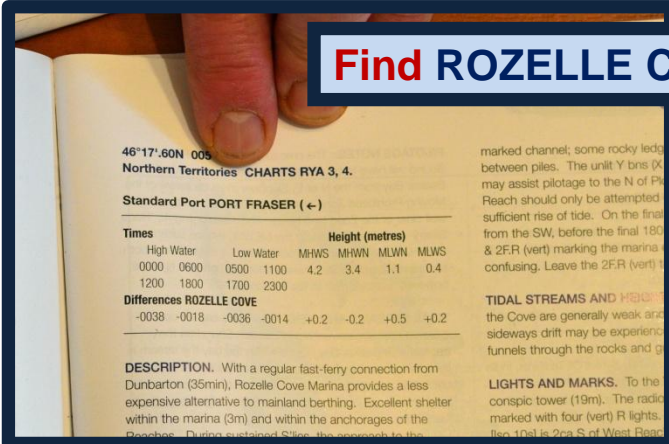
Look up 28<sup>th</sup> April and circle with a pencil (page 48)



Write down the times of the tides required, their heights and whether they are springs or neaps

# Time of Tide

Find ROZELLE COVE in the RYA ALMANAC (page 65)



Write down the differences in times and heights

You can see the correct time adjustment will be minus 38 minutes and 0.2m needs to be added the heights of both HW and LW

# Time of Tide

Rozelle Cove  
Differences to Port Fraser

0000	0600	HWS	MHW	MLWN	MLWS
1200	1800	4.2	3.4	1.1	0.4
-0038	-0018	+0.2	-0.2	+0.5	+0.2

Port Fraser HW 00.01 4.3m  
 correction - 00.38 +0.2m  
23.23 4.5m  
 DST Rozelle Cove + 01.00  
 DST Rozelle Cove 00.23

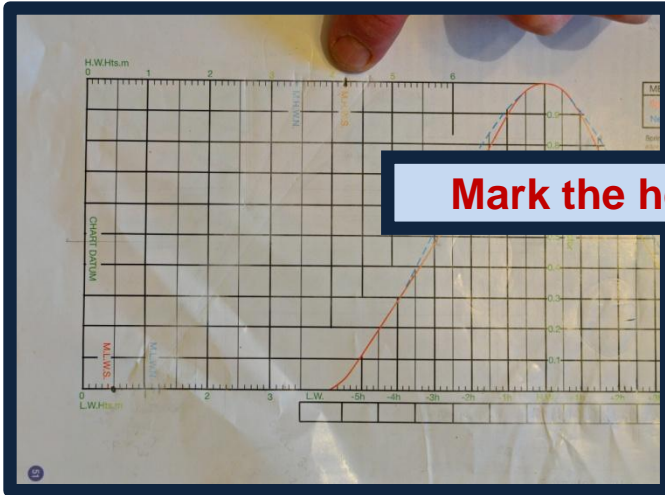
Now make the corrections for Rozelle Cove, the times and heights of HW and LW

Check to see if you need to make an adjustment for DST

In this example you do.....

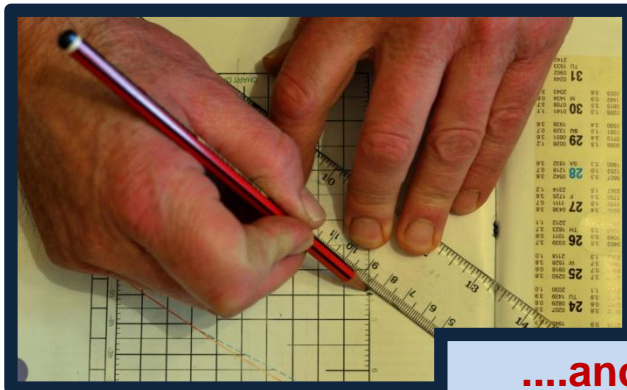
# Using the Tidal Curve

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

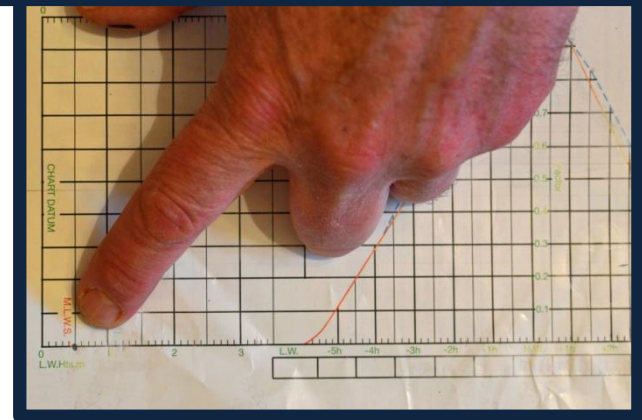


Mark the height of tide for that day at **HW – 4.5m**

Mark the height of the previous **LW – 0.6m**



...and draw a line between the two

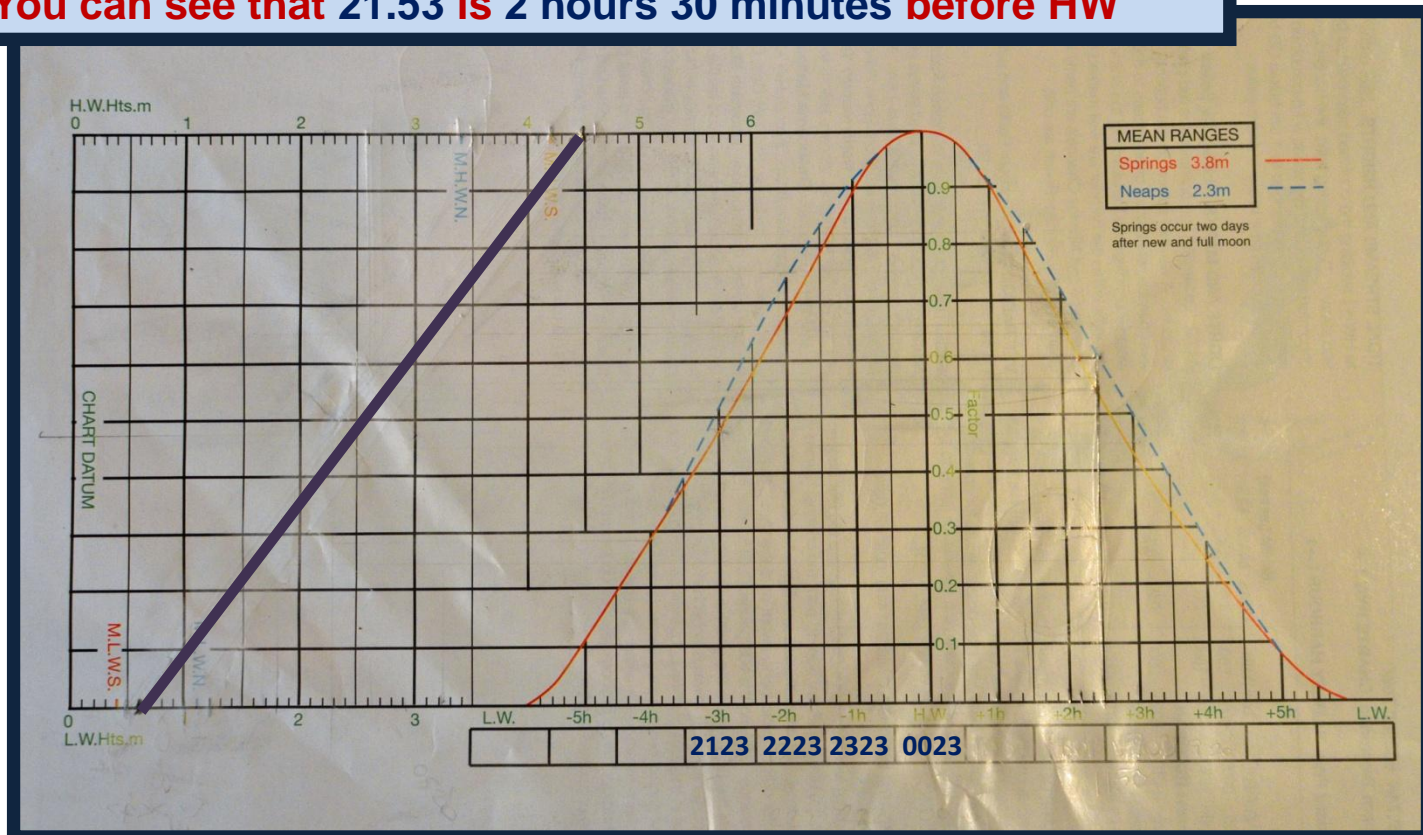




# Using the Tidal Curve

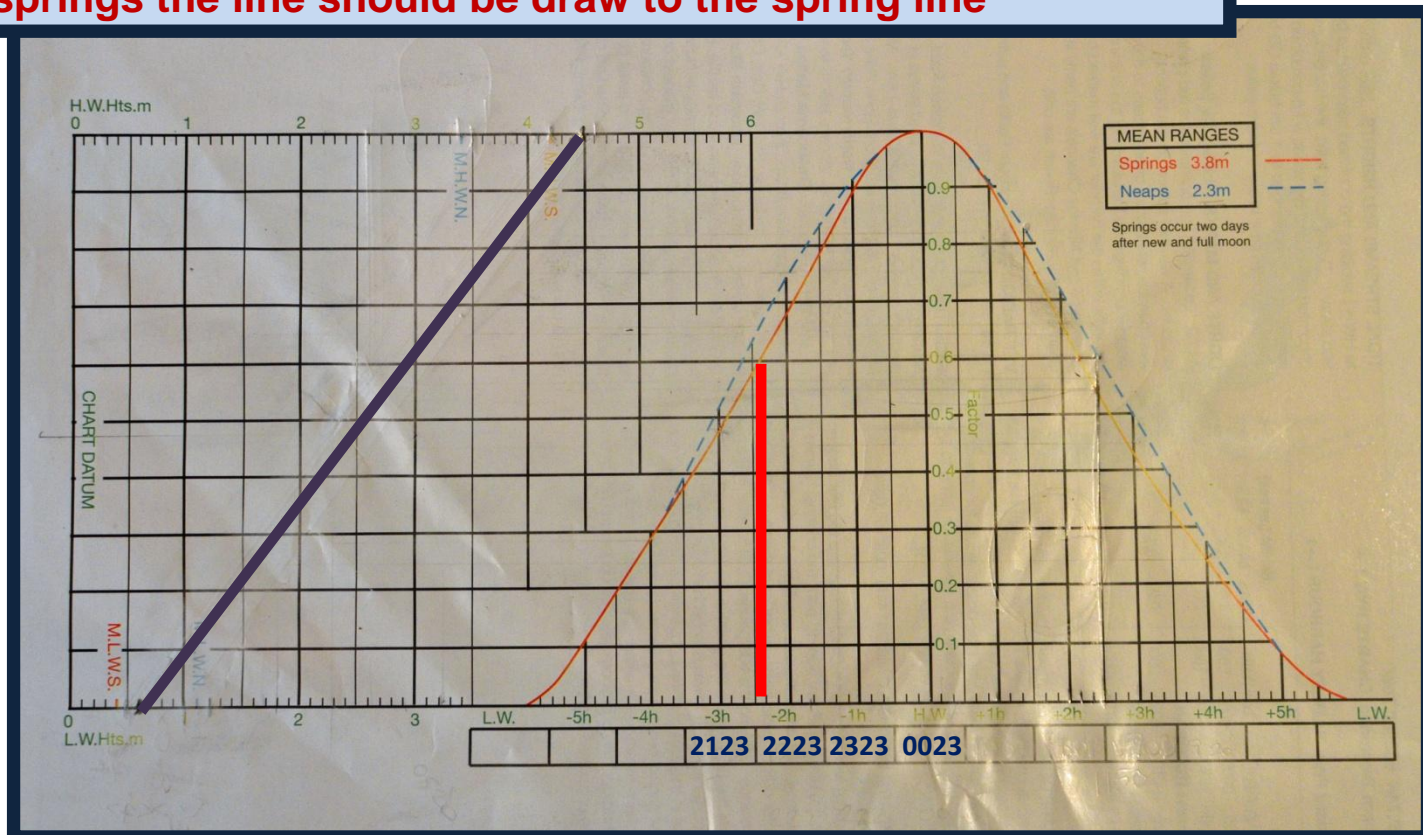
First add the time of HW and work it back to 21.53

You can see that 21.53 is 2 hours 30 minutes before HW



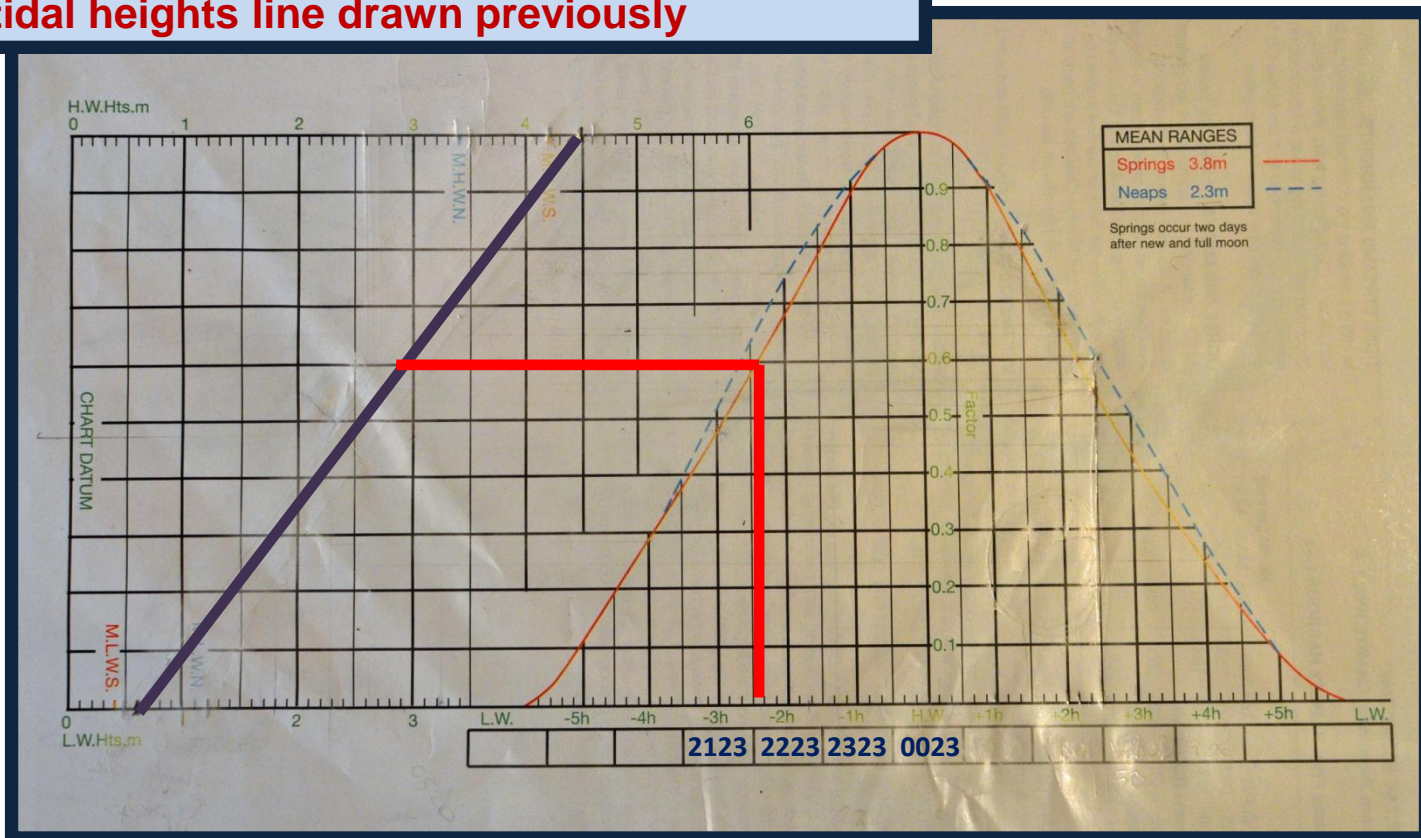
# Using the Tidal Curve

Now draw a line from the time to the tidal curve, as it is springs the line should be drawn to the spring line



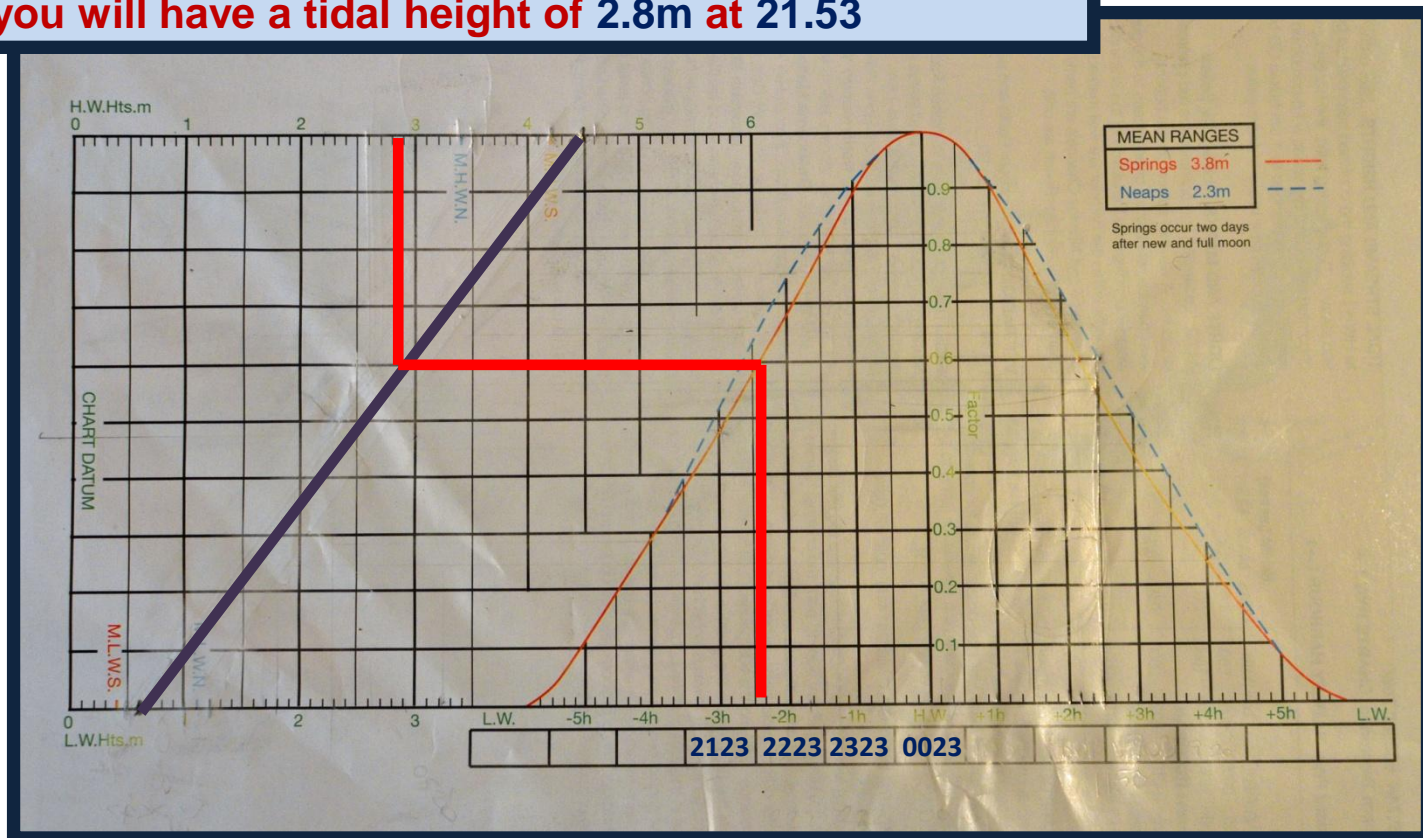
# Using the Tidal Curve

Then draw a line from the tidal curve to the tidal heights line drawn previously



# Using the Tidal Curve

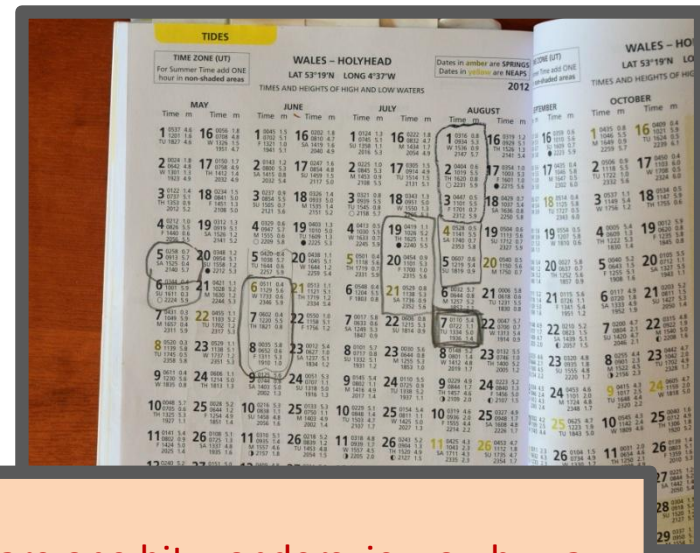
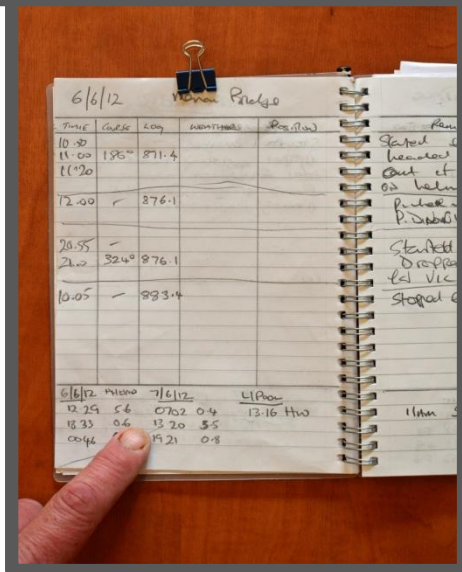
You can now draw the final line and you can see that you will have a tidal height of 2.8m at 21.53



# Top Tips

## TOP TIP

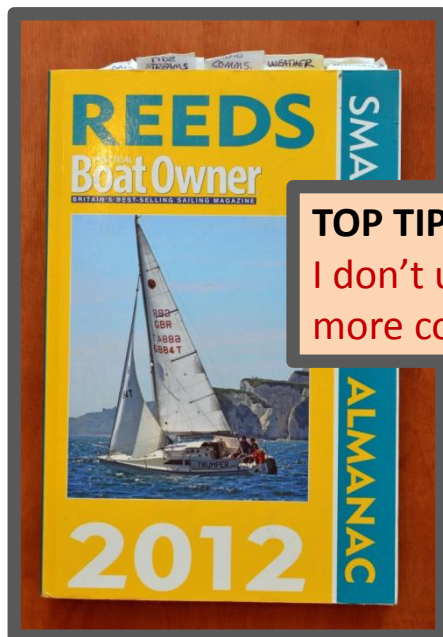
In the real world I write down my tidal information in my **LOGBOOK** on the page that I intend to use during the passage. That way I always have the information to hand when I need to refer to it.



## TOP TIP

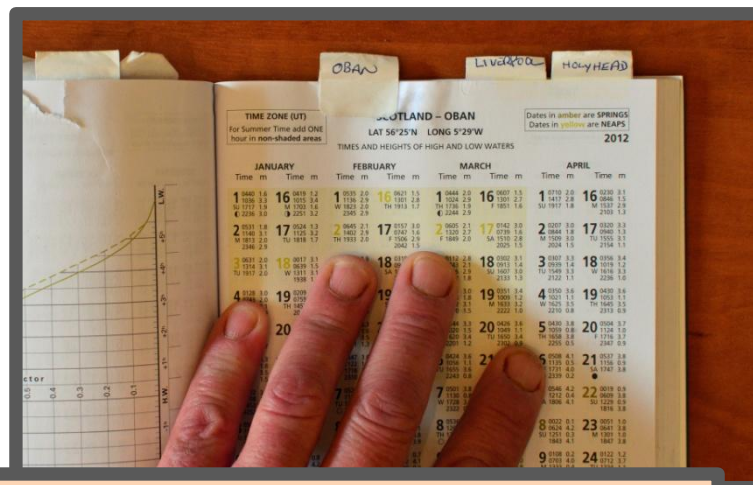
As almanacs are one hit wonders, ie, you buy a new one each year, I always circle the range of dates I am using. This is so I don't get confused and copy the wrong data and it makes checking much easier and quicker.

# 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.

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Thank you for your honesty.

## 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](http://www.penguinsailing.com)