

# TIDAL TIMES & HEIGHTS

**Working out tidal times and heights**

**For Standard Ports**

# Standard Ports

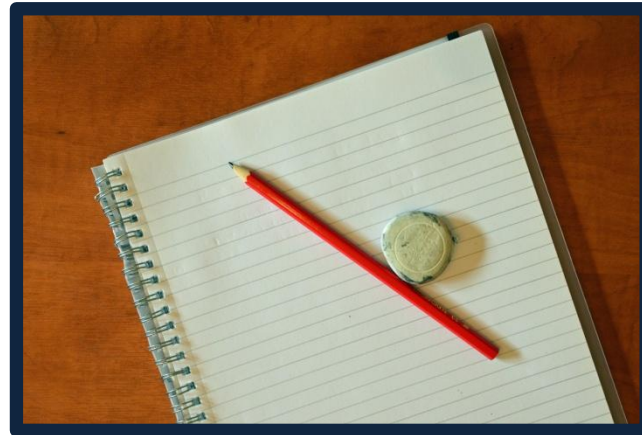
**Now that you understand tidal terms and what they mean, lets put them to practice and work out a tide for a STANDARD PORT**

# You Will Need

**RYA Almanac**



**Pad of paper, pencil and rubber**



# Question

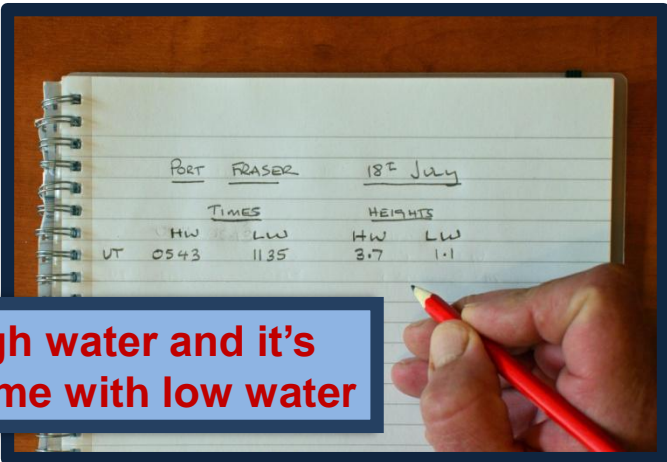
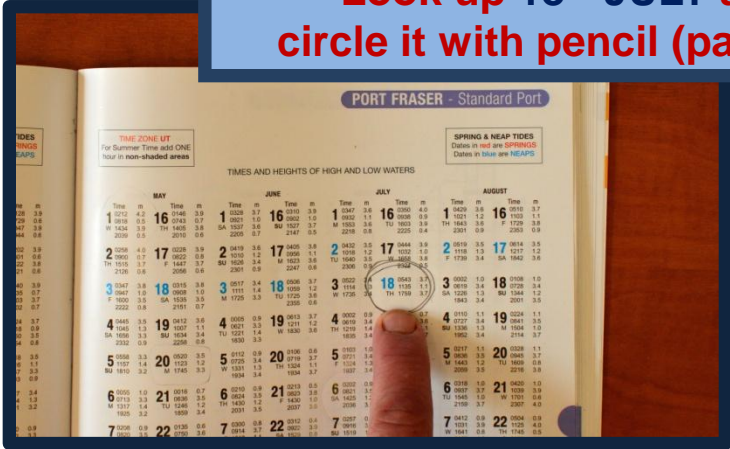
- What is the time of **HIGH** and **LOW** water at **PORT FRASER** on the morning of 18<sup>th</sup> July?
- What is the **TIDAL RANGE** and **HEIGHTS** that morning?
- Is it **SPRINGS** or **NEAPS**?

# Part 1 - Time of Tide



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

**Look up 18<sup>th</sup> JULY and circle it with pencil (page 49)**



**Write down the time of high water and it's height and then do the same with low water**

# Part 1 – Time of Tide

**PORT FRASER - Standard**

**TIME ZONE UT**  
For Summer Time add ONE hour in non-shaded areas

**SPRING & NEAR**  
Dates in red are  
Dates in blue are

**TIMES AND HEIGHTS OF HIGH AND LOW WATERS**

JUNE		JULY		AUGUST	
Time	m	Time	m	Time	m
1 0217	3.9	1 0347	3.6	1 0429	3.6
1 0811	0.7	1 0952	1.1	1 1021	1.2
1 142	3.8	1 1527	3.7	1 1643	3.6
2 01	0.6	2 218	0.8	2 2301	0.9
2 07	3.9	2 0432	3.5	2 0619	3.5
2 13	0.8	2 1018	1.2	2 1118	1.3
2 19	3.7	2 1640	3.5	2 1739	3.4
2 25	0.6	2 2306	0.9	2 2522	0.5
3 01	3.8	3 0522	3.4	3 0602	1.0
3 07	1.0	3 1114	1.3	3 1135	1.1
3 13	3.5	3 1735	3.6	3 1759	3.7
3 19	0.7	3 2355	0.6	3 2522	0.7
4 01	3.6	4 0005	0.9	4 0002	0.9
4 07	1.1	4 0621	3.3	4 0619	3.4
4 13	3.4	4 1211	1.2	4 0647	3.6
4 19	0.6	4 1830	3.6	4 1219	1.4
				4 1835	3.4
				4 1906	3.7

PORT FRASER 18<sup>th</sup> July

TIMES		HEIGHTS	
UT	HW	LW	HW
0543	3.7	1.1	
+ 0100			
0643		12.35	

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

Add **ONE HOUR** to the times written down

You now know the **TIME** and **HEIGHT** of the tide



# Part 2 – Range of Tide

The **RANGE OF TIDE** is the difference between the **HEIGHTS** of high and low water

PORT FRASER 18<sup>th</sup> July

	TIMES		HEIGHTS	
VT	HW	LW	HW	LW
	0543	1135	3.7	1.1
	+ 0100	+ 0100		
	0643	12.35		
<u>RANGE</u>			$3.7 - 1.1 =$	<u>2.6</u>

Take 1.1m (low water figure) from 3.7m (high water figure) = Range of tide 2.6

You now know the **RANGE** of the tide

# Part 3 – Springs or Neaps

Find the TIDAL CURVE for PORT FRASER (page 51)

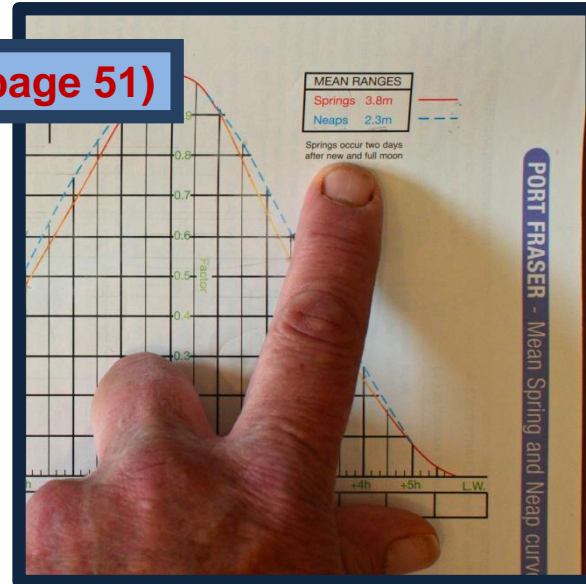
PORT FRASER 18<sup>th</sup> July

TIMES		HEIGHTS	
HW	LOW	HW	LOW
0543	1135	3.7	1.1
+0100	+0100		
0643	12.35		

RANGE  $3.7 - 1.1 = 2.6$

SPRING RANGE 3.8  
NEAP RANGE 2.3

CLOSE TO NEAPS



Look at the MEAN RANGES and write them down and compare them to the 18<sup>th</sup> July

You now know the range of tide is close to NEAPS





# Answer

1.	Port Fraser	18 <sup>th</sup> July			
	<u>Times</u>			<u>Heights</u>	
		HW	LW	HW	LW
	(UT)	05.43	11.35	3.7	1.1
	+	<u>01.00</u>	<u>01.00</u>		
	DST	06.43	12.35		

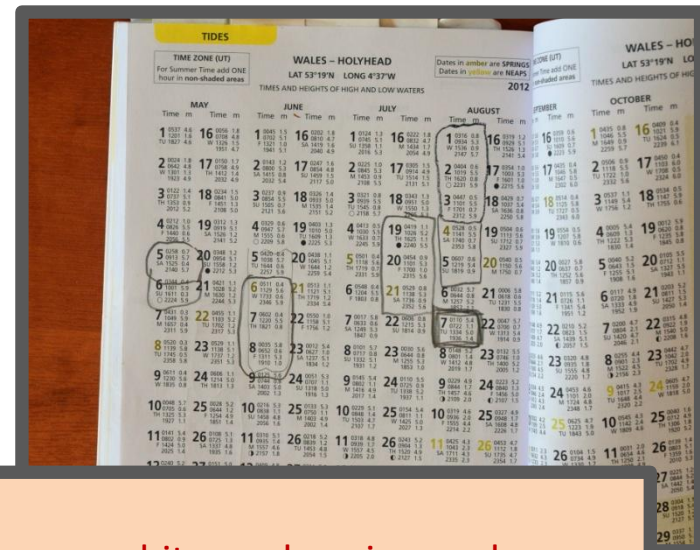
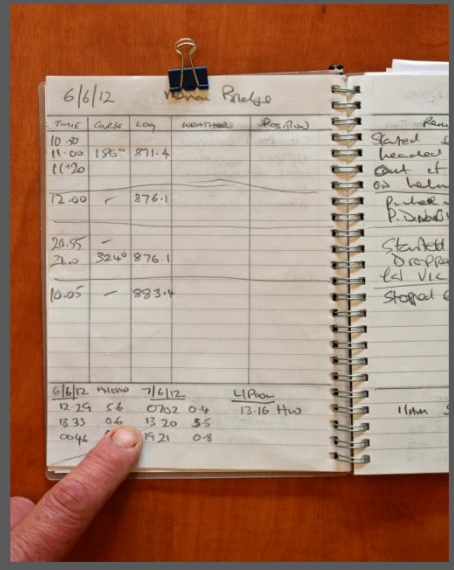
2. Range on 18<sup>th</sup> July : 3.7m – 1.1m = 2.6m

3. Spring range for Port Fraser is 3.8m  
Neap range for Port Fraser is 2.3m  
Therefore actual range is close to neaps  
Almanac shows trending towards neaps not springs

# Top Tips

## TOP TIP

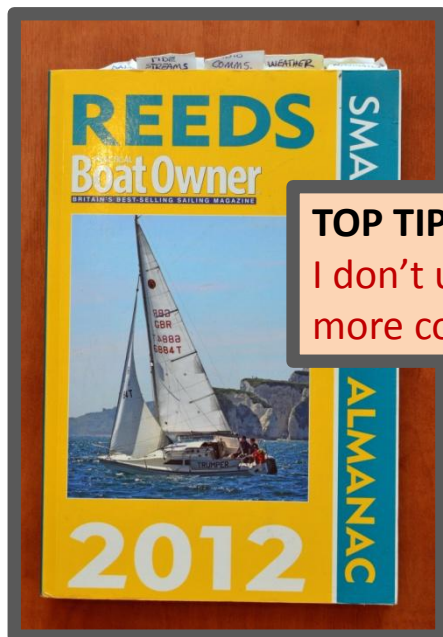
In the real world I write down my tidal information in my **LOGBOOK** on the page that I intend to use during the passage. That way I always have the information to hand when I need to refer to it.



## 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 use often, 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)**