

## **Axe Yacht Club**

### **RYA Yachtmaster Shorebased Course 2021**

#### **Examples Class – Secondary Ports**

You will need:

Training Almanac North

Namley Harbour Tidal Curve

Port Fraser Tidal Curve

2 copies of the Secondary Port Tidal Height Pro-forma

#### **Question 1**

The yacht "Top Hat" is moored in Port Rampton Marina (TAN p60). It has an air draught of 17m and the skipper always requires a safety clearance of 2m when passing under the bridge when leaving the marina.

On Tuesday 8 October, the skipper has crew members joining the boat at 0800 DST. What is the latest time that morning that they will be able to leave the marina?

#### **Question 2**

The motor cruiser "Over Draught" has a draught of 1.3m. On Saturday 29 June, whilst on passage from Slade Island to Port Fraser the skipper decides to overnight at anchor in Beaker Bay, just outside India Harbour (TAN p66). He wants to maintain a safety clearance of 1.5m under the keel at all times. They enter the bay at 1830 DST. What is the minimum depth that they should anchor in if they are staying until 0800 the next day?

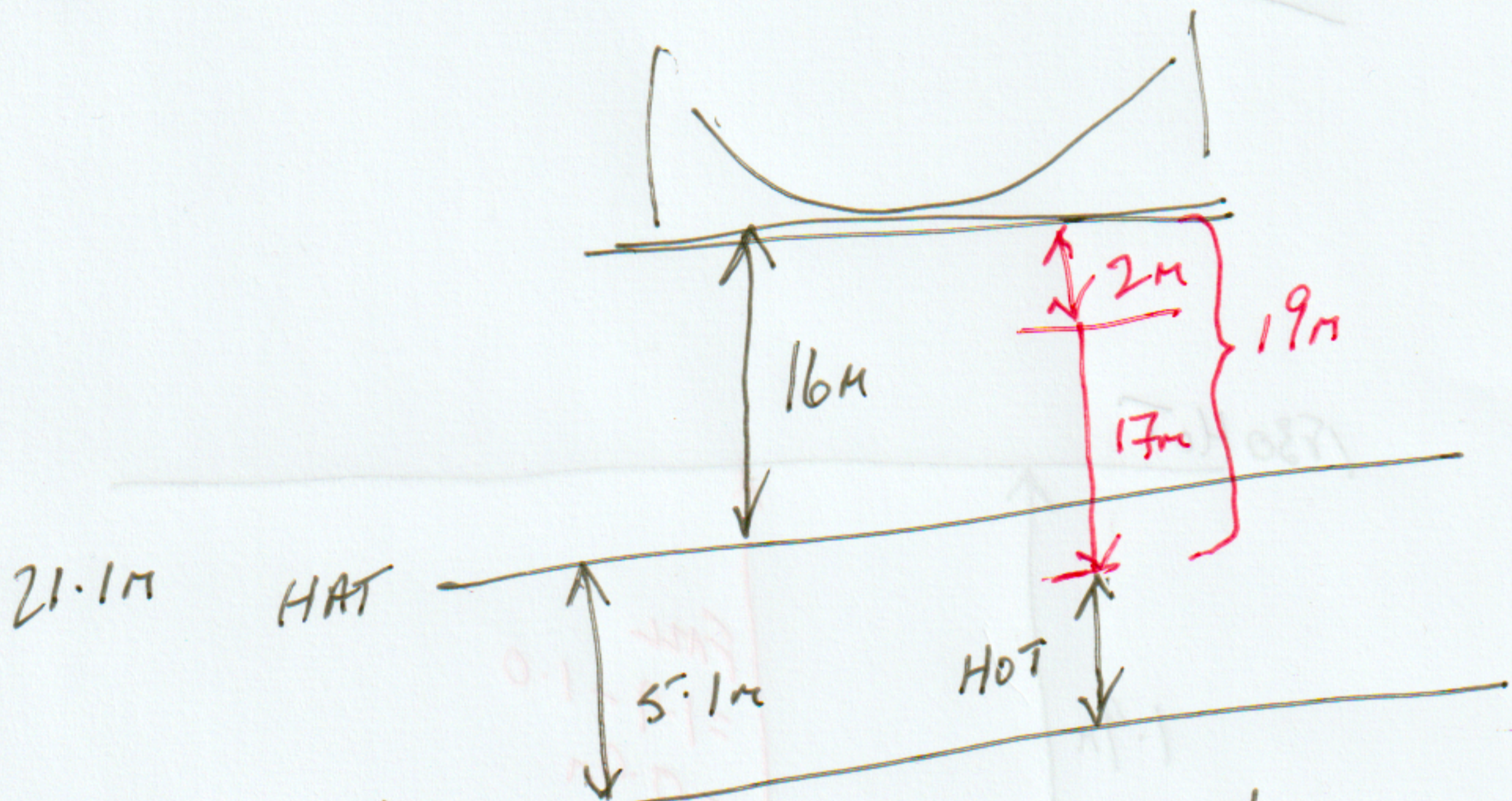


Q1

Part Ra pton

Bridge = 16m I

PR HAT = 5.1m



CD

$$\text{MAX HOT} = 21.1 - 19 = 2.1\text{m}$$

Depth  $\downarrow$  =  $0.9 + 1.3 + 1.2$  =  $3.4\text{m}$



Secondary Ports Tidal Heights

Process to mark up the tidal curve.

Secondary Port = **PORT LAMPTON**

Standard Port = **NARLEY HBR**

Date = **8 OCTOBER.**

*Value from table.*

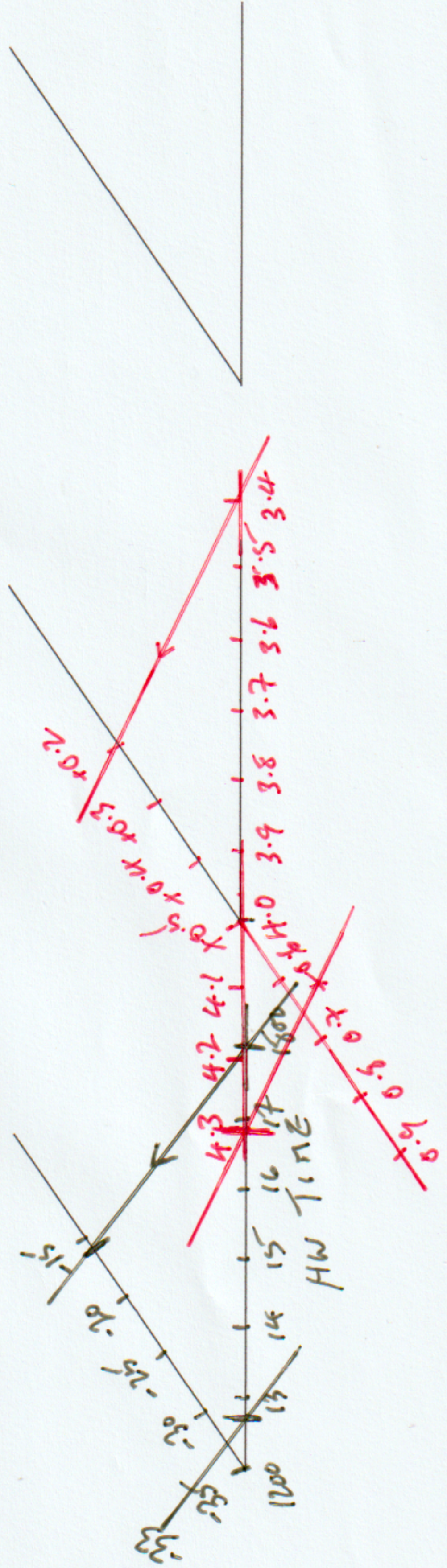
Standard Port	HW Time	12.00 UT	HW Height	4.3 m	LW Time	UT	LW Height	0.4 m	Range	3.9 m
Difference		-0033		+0.7				+0.2		
Secondary Port		12.11 UT		5.0						
Secondary Port corrected for DST if required		13.11 DST		5.0 m				0.6 m		

Fill in the grey shaded boxes and then use the values in the green boxes to mark up the Standard Port Tidal Curve.

High Water Time Difference

High Water Height Difference

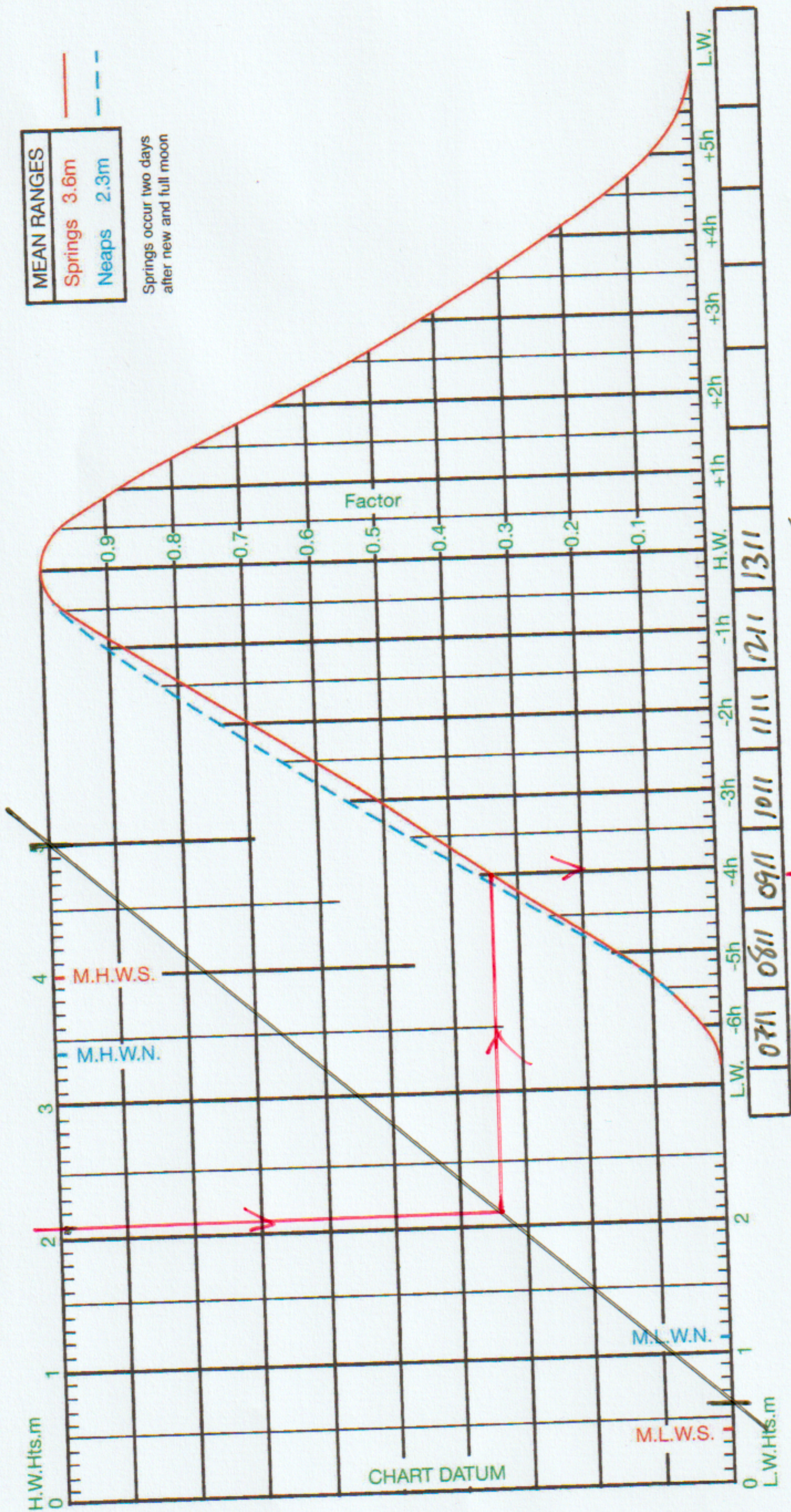
Low Water Height Difference





# NAMLEY HARBOUR - Mean Spring and Neap curves

PORT RAMPTON  
8 Oct.

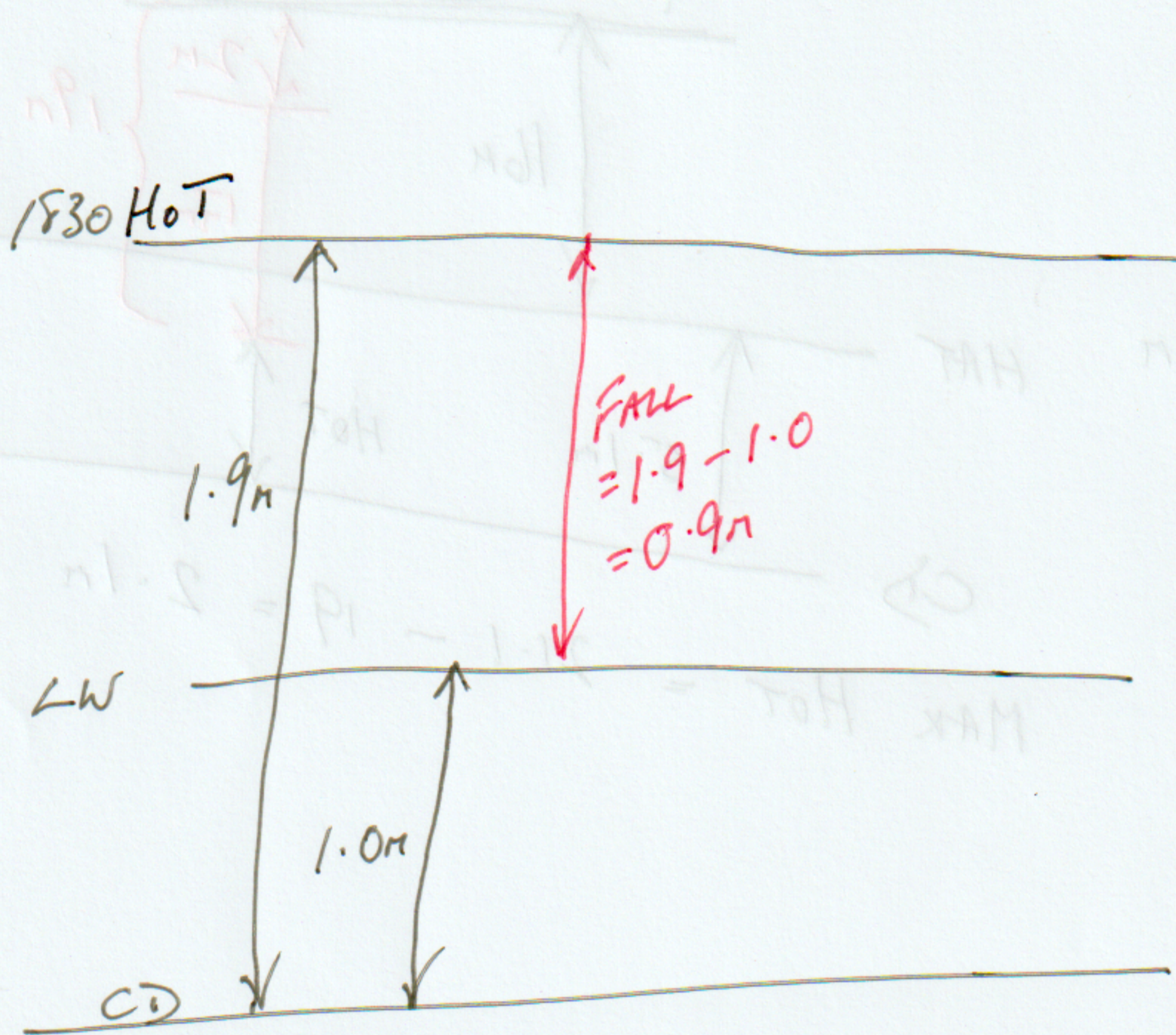


DST

2.1m H<sub>01</sub>  
@ 0911 DST



Q2



$$\begin{aligned} \text{DEPTH } \downarrow &= \text{FALL} + \text{DRAUGHT} + \text{SAFETY} \\ &= 0.9 + 1.3 + 1.5 \\ &= \underline{\underline{3.7m}} \end{aligned}$$



Secondary Ports Tidal Heights

Process to mark up the tidal curve.

Secondary Port = **INDIA HBL**  
 Standard Port = **PORT FRASER**  
 Date = **29 Jun**

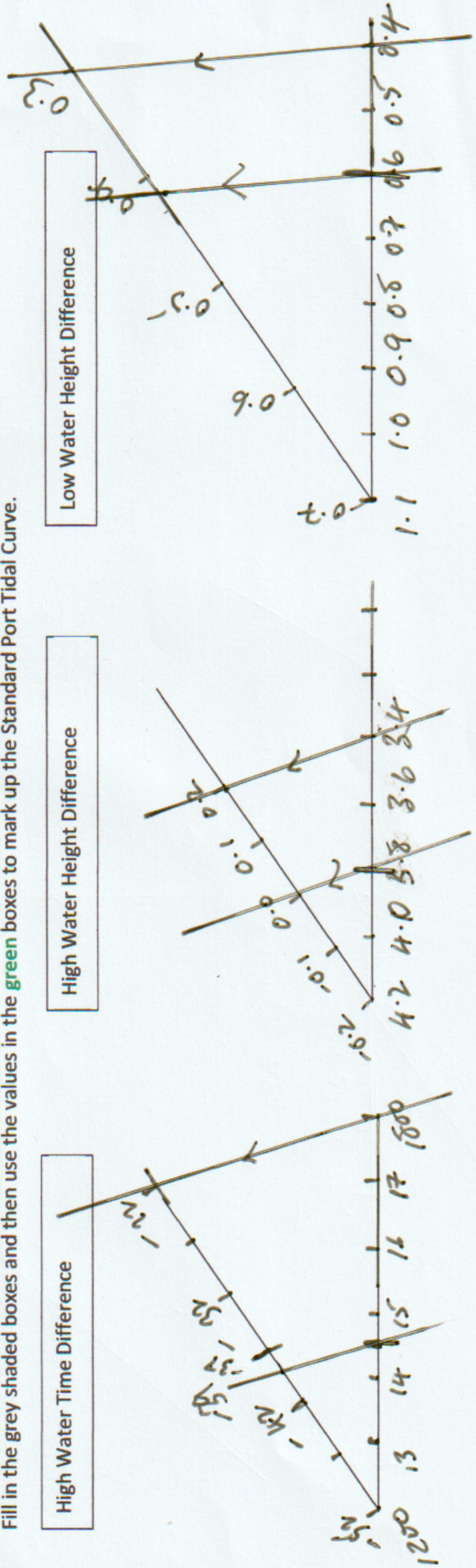
Standard Port	HW Time	1434 UT	HW Height	3.8 m	LW Time	2057 UT	LW Height	0.6 m	Range	3.2 m
Difference		-0039		0.0				+0.4		
Secondary Port		1355 UT								
Secondary Port corrected for DST if required		1455		3.6 m				1.0 m		Springs Midway Neaps

Fill in the grey shaded boxes and then use the values in the green boxes to mark up the Standard Port Tidal Curve.

High Water Time Difference

High Water Height Difference

Low Water Height Difference



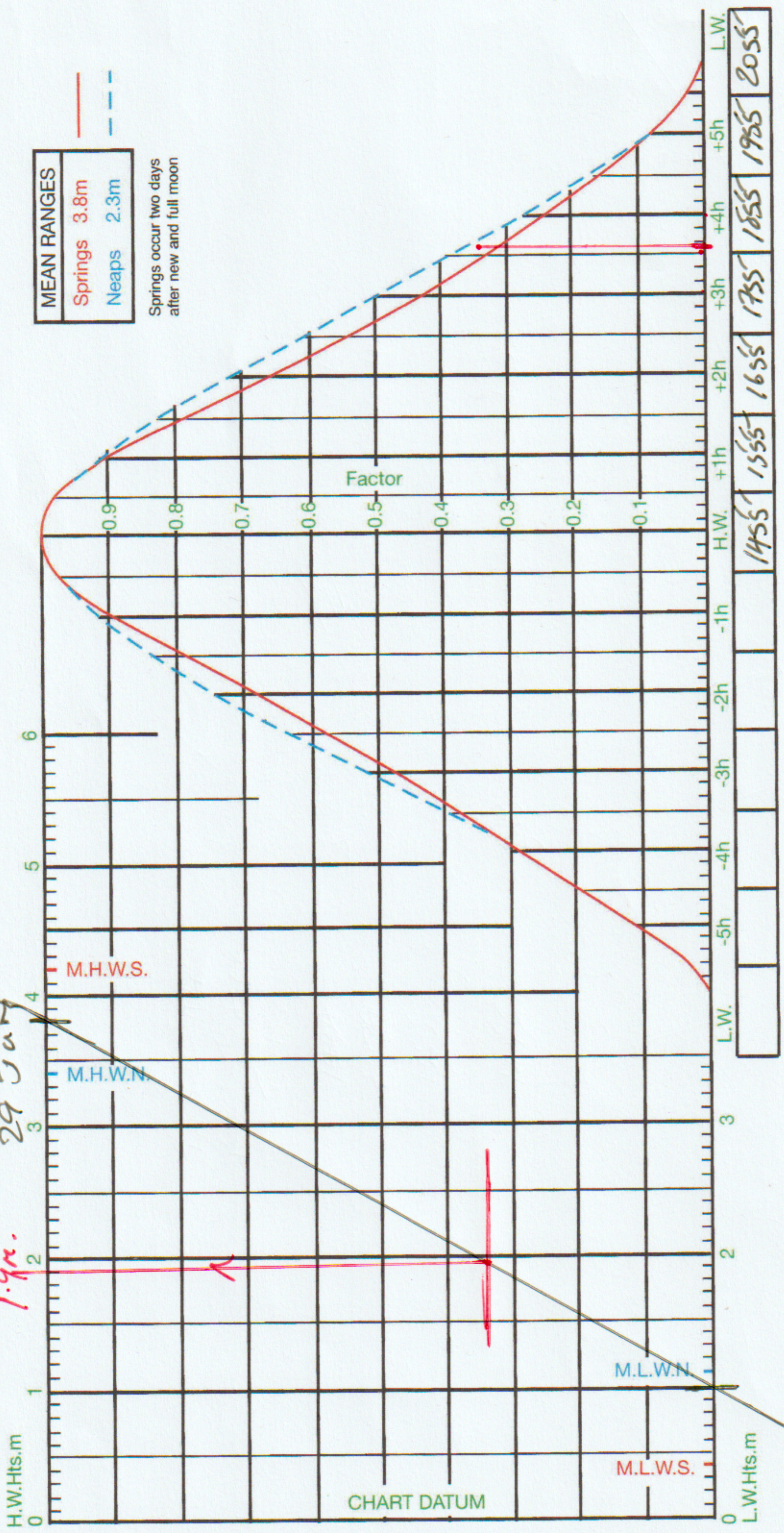


# PORT FRASER - Mean Spring and Neap curves

INDIA HBR.  
1.9m. 29 Jan

MEAN RANGES	
Springs	3.8m
Neaps	2.3m

Springs occur two days after new and full moon



H.W.Hts.m

L.W.Hts.m

CHART DATUM

M.L.W.S.

M.H.W.S.

M.H.W.N.

M.L.W.N.