

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





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





You Will Need

RYA Almanac



RYA Chartplotter



Pad of paper, pencil and rubber



RYA Chart 4







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





Time of Tide

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





5 0217 0836 M 1443

7 0412 1031 W 1641

3.6 1.1 3.7

0.8 3.7 1.0 3.8 6 0318 0937 TU 1545

0.7 3.8 0.8

0520 0.8 1140 4.0 1757 0.6

4.0 0.8 4.0 0.5

0.9 3.9 0.5

12 0156 0747 M 1411

0.9 **13** 0241 0.9 **TU** 1453 0.6

Time of Tide

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



MINUS LAND OTH LEIGHT
PORT FRASER MAY 26th
HW - SPRINGS
UT 23040 4.2 RANGE 3.7M
+ 01.00
00.40
LW
UT 17.27 0-5
18.27

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



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







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

















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.



	TIDES					WALES - HO
For	TIME ZONE (UT) Summer Time add ONE	WALES -	HOLYHEAD LONG 4°37'W	Dates in amber are SPRINGS Dates in vellow are NEAPS	EIDIE (UT) Time add ONE Awfurd areas	LAT 53"19"N LO
		TIMES AND HEIGHTS OF	HIGH AND LOW WATERS	2012	areas a	TIMES AND THE B
T	MAY ime m Time m		JULY	AUGUST	FEMBER	Time m Time m
1	0537 4.8 1201 1.6 1827 4.8 1827 4.8 W 1328 1.5 1951 4.7	1 0045 15 1 0702 51 5 132 10 1941 51 2040 49	1 0124 13 0045 51 50 1596 51 50 1596 51 M 1414 12 M 1414 12	1 0316 0.8 W 1516 0.9 W 1516 0.9 Thillie m	16 010 0.6 10 100 5.6 10 100 5.6	1 0405 0.8 16 0409 0.4 1 1046 5.5 M 1649 0.5 2229 5.7
2	0028 1.8 17 0150 1.7 0642 4.8 17 0158 4.9 1101 1.3 TH 1412 1.4 1923 4.9 2032 4.9	2 ⁰¹⁴³ ^{1,2} 17 ⁰³⁴⁷ ^{1,6}	2 0025 1.0 17 0914 4.9 M 1453 0.3 TU 5514 1.5 J708 5.3 TU 5514 1.5 2111 5.1	2 0404 0.6 1019 5.5 TH 1620 0.8 TH 1620 0.8 1 500 5.5 1 500 5	17 0425 8.4 17 556 5.8 16 567 8.5	2 0506 0.5 17 1583 60 10 1722 1.0 2332 1.6 W 1708 0.5 2324 60
3	0122 1.4 18 0034 1.5 0737 5.1 1350 0.8 F 1451 1.3 2012 5.2 2108 5.0	3 0237 0.9 18 0326 1.4 50 1525 0.7 M 1533 1.4 2121 5.6 2151 5.2	3 0321 0.8 10 1545 0.8 0 2116 5.7 0 2116 5.7	3 0447 0.5 7 1007 5.5 7 1701 0.7 14 1636 0.4	18 1514 0.4 10 1125 5.8 10 11227 0.5	3 (149 5.4 W 1756 1.2 W 1756 1.2
4	19 0112 1.3 19 0112 1.3 10 0119 5.1 1440 6.6 54 1526 1.2 2541 5.2	4 0947 5.7 M 1555 0.6 0 2229 5.8 0 2225 5.8	4 0413 0.5 W 1020 538 W 1621 0.7 2245 539 19 0419 1.1 TH 1625 1.1 2245 5.9	4 0528 0.5 54 1141 5.5 54 1141 5.5 54 1140 5.5 54 1140 5.8 54 1141 5.5 54 1141 5.5 54 1141 5.5 54 1141 5.5	19 1007 5.8 W 1810 0.6	4 0005 54 19 0012 58 0620 13 TH 1222 53 TH 1222 54 1800 14
(5	2058 0.7 20 0348 1.2 313 5.7 20 0954 5.1 51325 0.4 50 1558 1.2 140 5.7 2012 5.3	5 0620-628 1058 5.7 10 1644 0.8 2257 5.8 2257 5.8 2259 5.4	5 0501 6.4 TH 1718 5.6 TH 1719 0.7 2011 5.9 20 0454 0.9 1501 5.3 7 1700 1.0 2015 5.6	5 0607 0.8 50 1819 0.9 20 1819 0.9 20 0540 8.5 1150 5.6 M 1750 8.7	20 0037 5.8 11 1252 5.6	5 0040 5.2 7 0543 1.5 7 1255 5.1 1508 1.6
6.20	1 0411 11 0411 539 511 021 2244 53	6 0511 0.4 W 1733 0.6 2346 3.9 C 1129 5.6 W 1733 0.6 2346 3.9 C 10513 1.1 DN 1719 1.2 2334 5.4	6 1204 5.5 F 1801 0.8 SA 1776 6.9 2352 5.6	6 0644 0.5 21 0006 5.8 M 1257 5.7 TU 1237 5.5 M 1257 5.7 TU 1237 5.5	21 0115 5.6 1 21 0115 5.6 1 1015 5.6	6 0117 45 21 0203 52 6 0720 18 25 021 021 53 54 1333 45 50 1427 53 50 1427 53
7 mil	401 0.3 22 6655 11 649 5.9 21 1163 5.2 657 0.4 10 1762 1.2 311 5.9 2317 5.3	7 1220 5.5 TH 1821 0.8 22 0550 1.0 F 1756 1.2	7 0511 5.8 22 0006 0.8 54 1249 3.3 50 1816 0.9	7 0110 5.4 0122 1.1 TU 1134 5.0 1936 1.4 W 1113 5.4 HIL 0.9	1051 1.2 22 0020 5.2 10 22 0020 15	7 0004 47 22 0012 48 10 1420 47 0022 18 10 1420 47 0 2208 18
N I I	119 5.4 23 05.9 11 119 5.4 1138 5.1 745 0.5 W 1777 1.2 158 5.8 2351 5.3	8 0025 3.8 F 1311 5.3 1910 1.0 1910 1.0 1910 1.0	8 0101 5.7 50 1352 5.1 1331 1.2 M 1255 5.3 1853 1.0	8 0148 52 23 0182 55 W 1412 48 TH 540 52 2019 17 TH 540 52	23 02057 1.5 23 02257 1.5	8 0901 2.1 M 1522 4.5 M 1522 4.5
9	210 5.8 24 12M 5.0 105 0.8 TH M13 1.3	9 6044 558 24 0007 1.1 54 400 54 50 50 1378 54 2002 1.3 1318 1.3	9 0845 5.4 M 1416 4.9 J017 1.4 24 0150 5.5 M 1416 4.9 J017 1.4 1838 5.2	9 0029 49 24 0223 52 0444 17 24 0040 13 11 1457 45 7 1456 50 0 2100 20 0 2107 15	2226 13 141 24 0453 44 142 24 1101 21	9 0415 43 24 0605 47 1017 25 24 1155 20 TU 1645 44
10 cc TH 23 TS	125 0.4 25 000 5.2 1 125 3.3 1 1254 4.9 1251 1.4 155 1.4	10 0838 1.1 25 0750 1.1 1 SU 1458 4.8 M 1402 4.9 2014 1.6 2002 1.4	10 0025 5.1 10 00848 1.4 10 1593 4.7 2007 1.7 2007 1.3	10 0319 4.5 25 0327 4.9 7 1555 4.4 25 0348 1.7 2274 2.2 34 34 1668 4.8 1	42 25 0625 4 23 25 0625 4 23 25 1223 1	10 0545 43 25 0010 45 10 1142 24 11 1146 12 W 1000 45 21 11 1146 12
1100	26 075 13 34 5.0 34 1351 48 55 1.4 1955 1.6	1 (3150 5.1 26 (318 5.2 1 M 1557 4.6 TU 1453 4.8 0 2157 1.8 2054 1.5	1 0318 48 26 0343 52 W 1507 45 TH 1520 49 2205 220 TH 1520 49	1 10425 4.3 26 0453 4.7 1042 2.3 26 1112 1.8 14 1711 4.3 50 1778 4.7	21 26 0104	11 0011 20 26 0000 14

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

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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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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