

TIDE BASICS

Terms & Definitions

Rule of Twelfths

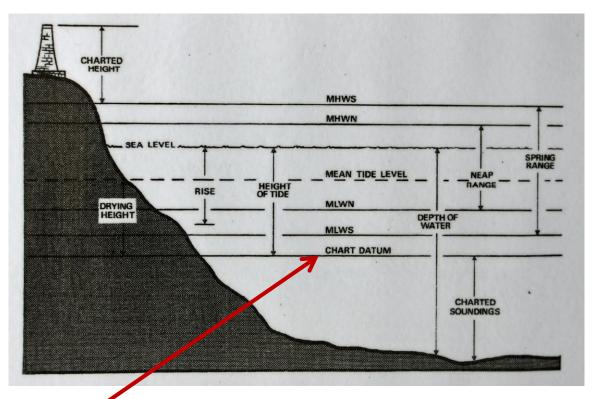
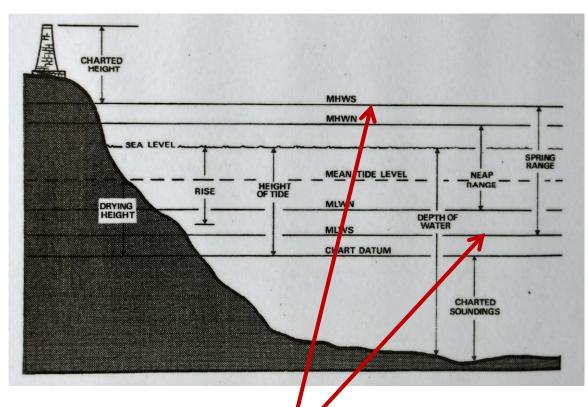


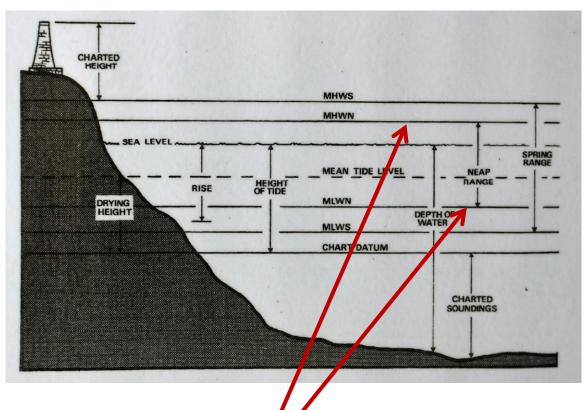
CHART DATUM

- Level of which soundings and drying heights are referred on the chart and above which heights of tide are given in the tide tables.
- Chart Datum level generally coincides with the level of the lowest astronomical tide (LAT)



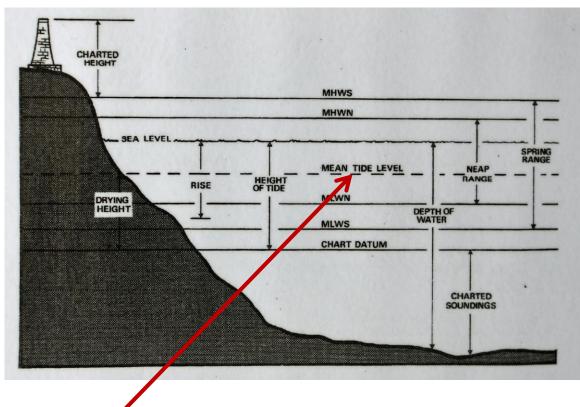
MEAN HIGH WATER SPRINGS (MHWS)
MEAN LOW WATER SPRINGS (MLWS)

- Average heights of high water and low water at spring tides
- Charted heights of terrestrial bodies (lights, peaks, bridges, etc) are referred to the level of MHWS



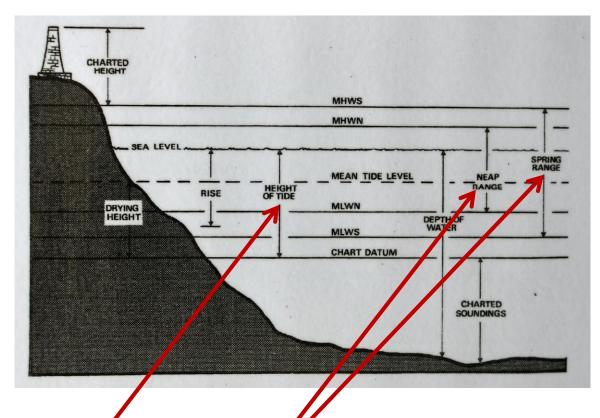
MEAN HIGH WATER NEAPS (MHWN)
MEAN LOW WATER NEAPS (MLWN)

Average heights of high and low water at neap tides



MEAN TIDE LEVEL

- Average value of all heights of high and low water of a period.
- Level does not always coincide with mean sea level but both terms are referred to as mean level

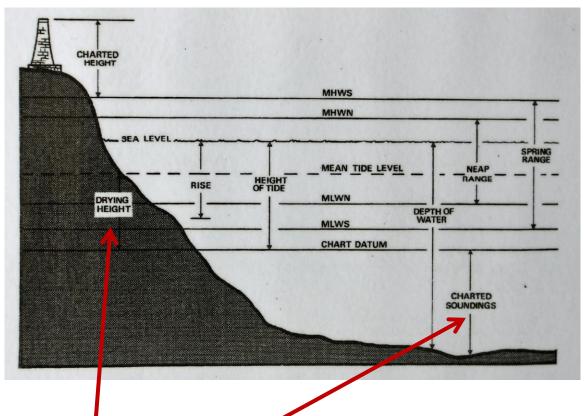


HEIGHT OF TIDE

Vertical distance between chart datum and the sea level

SPRING RANGE: NEAP RANGE

Difference in height between MHWS and MLWS or MHWN and MLWN

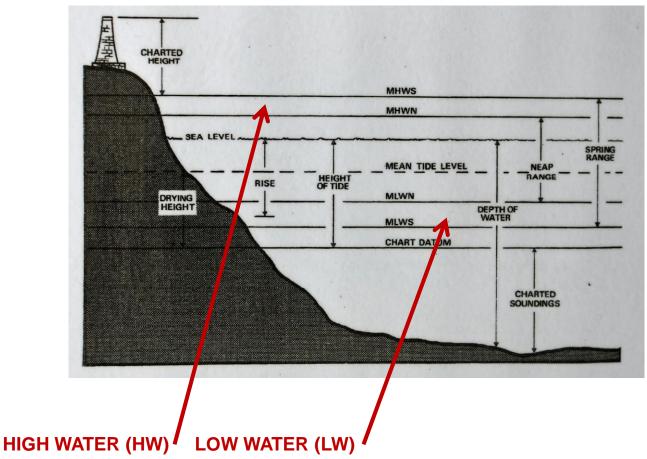


DRYING HEIGHT

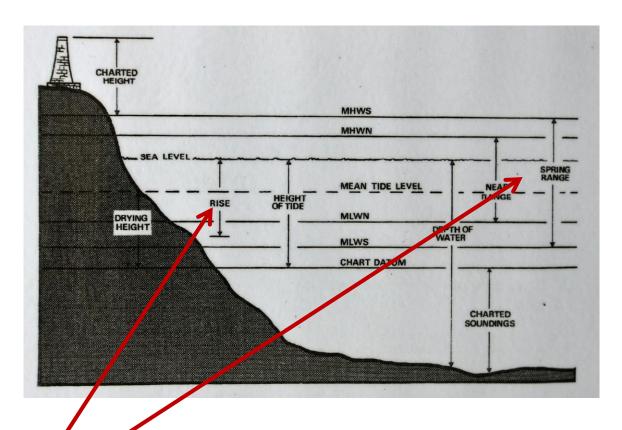
Height above chart datum of features covered and uncovered by the tide

CHARTED SOUNDING

Depth to the sea bed below chart datum



Depth to the sea bed below chart datum



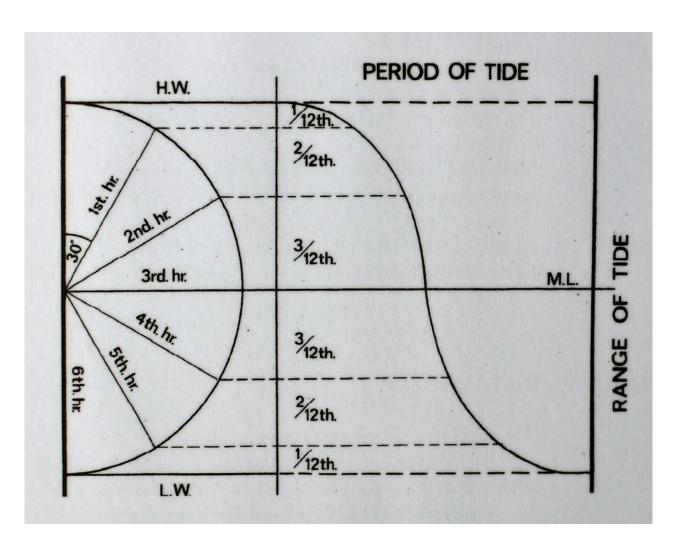
RANGE OF TIDE

Vertical difference between HW and LW

RISE

Vertical difference between LW height and actual water height

Rule of Twelfths



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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 at www.penguinsailing.com