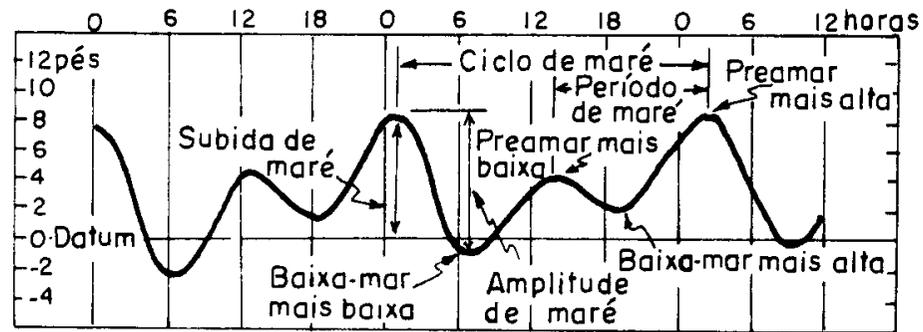
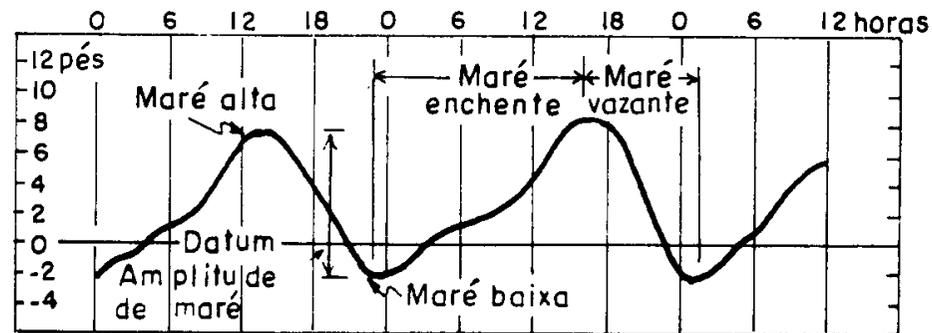
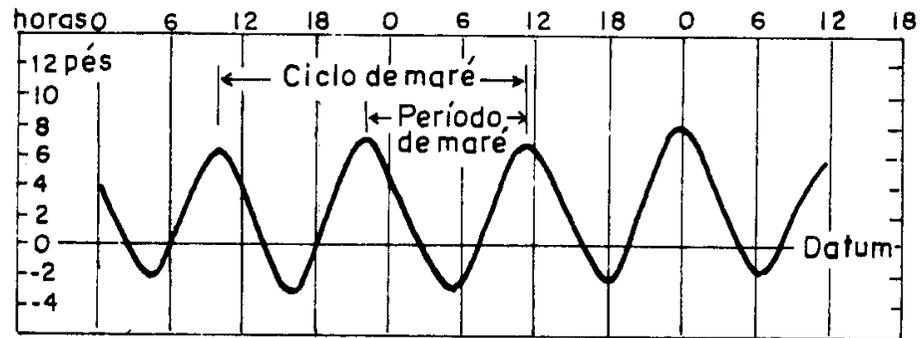


GeoLit

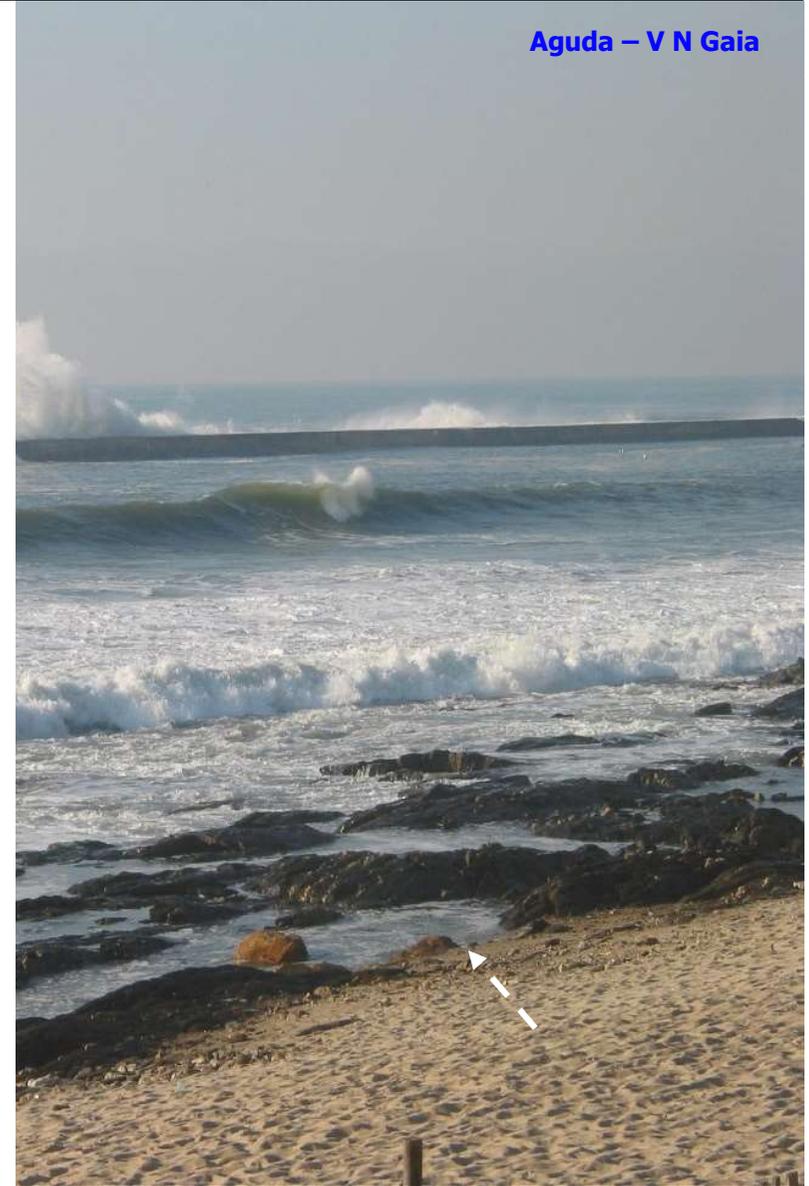
21 outubro de 2024

AGomes

Parâmetros da Maré



Aguda – V N Gaia



Dados sobre as marés

www.hidrográfico.pt

Previsão de Marés - Portugal

Portos Principais

Previsão para: 13 - Dezembro - 2015

Data: 2015-12-13 Porto: **Viana do Castelo**

Hora Legal de Inverno (UTC)	Altura(m)	
Sab, 2015-12-12 21:27	0.68	Baixa-mar
Dom, 2015-12-13 03:39	3.44	Preia-mar
Dom, 2015-12-13 09:54	0.63	Baixa-mar
Dom, 2015-12-13 16:01	3.24	Preia-mar
Dom, 2015-12-13 22:05	0.69	Baixa-mar
Seg, 2015-12-14 04:19	3.44	Preia-mar
Seg, 2015-12-14 10:34	0.64	Baixa-mar
Seg, 2015-12-14 16:43	3.19	Preia-mar
Seg, 2015-12-14 22:46	0.75	Baixa-mar
Ter, 2015-12-15 05:03	3.39	Preia-mar
Ter, 2015-12-15 11:18	0.70	Baixa-mar
Ter, 2015-12-15 17:29	3.12	Preia-mar
Ter, 2015-12-15 23:32	0.85	Baixa-mar
Qua, 2015-12-16 05:51	3.30	Preia-mar
Qua, 2015-12-16 12:07	0.79	Baixa-mar
Qua, 2015-12-16 18:20	3.01	Preia-mar
Qui, 2015-12-17 00:24	0.97	Baixa-mar

Data no Servidor de Dados: 2015-12-13 20:40 +0000



Feeds para Viana do Castelo:



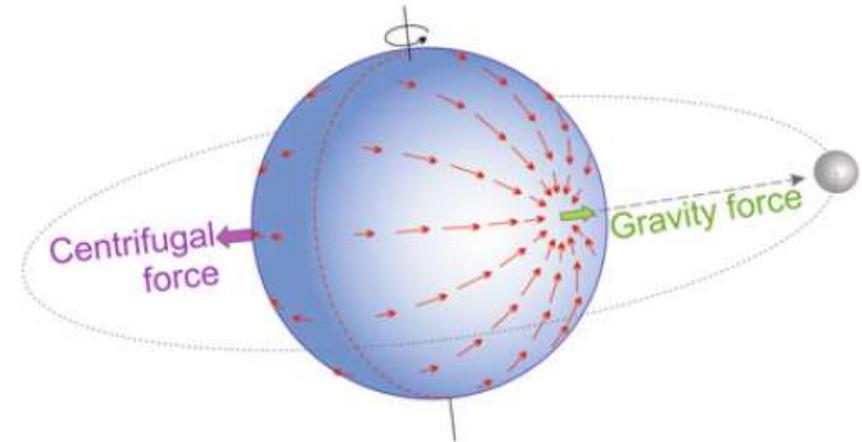
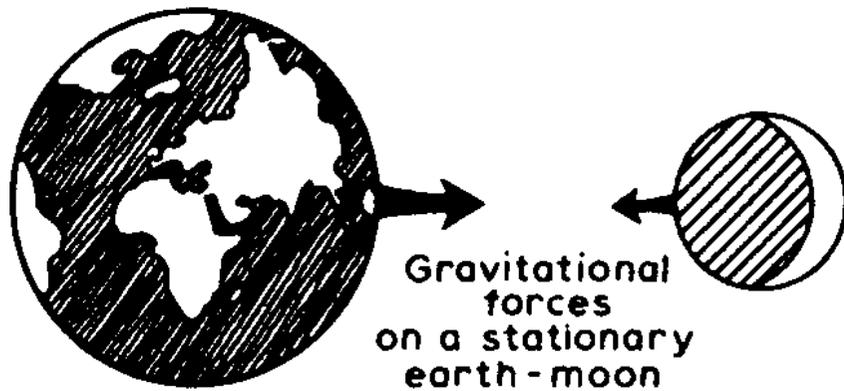
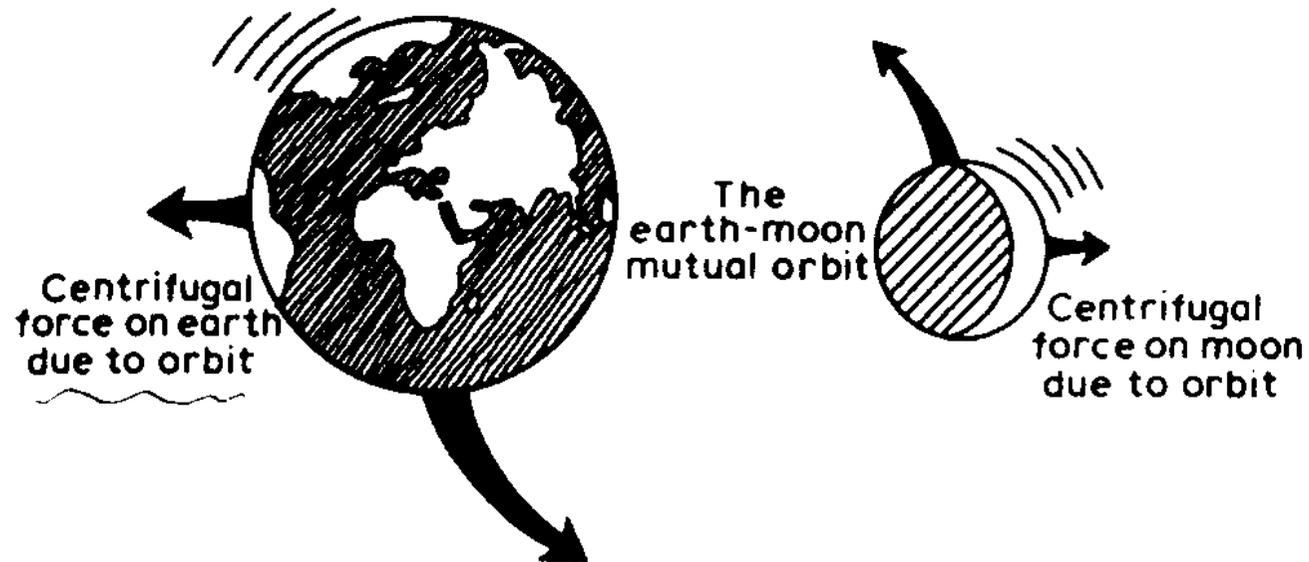
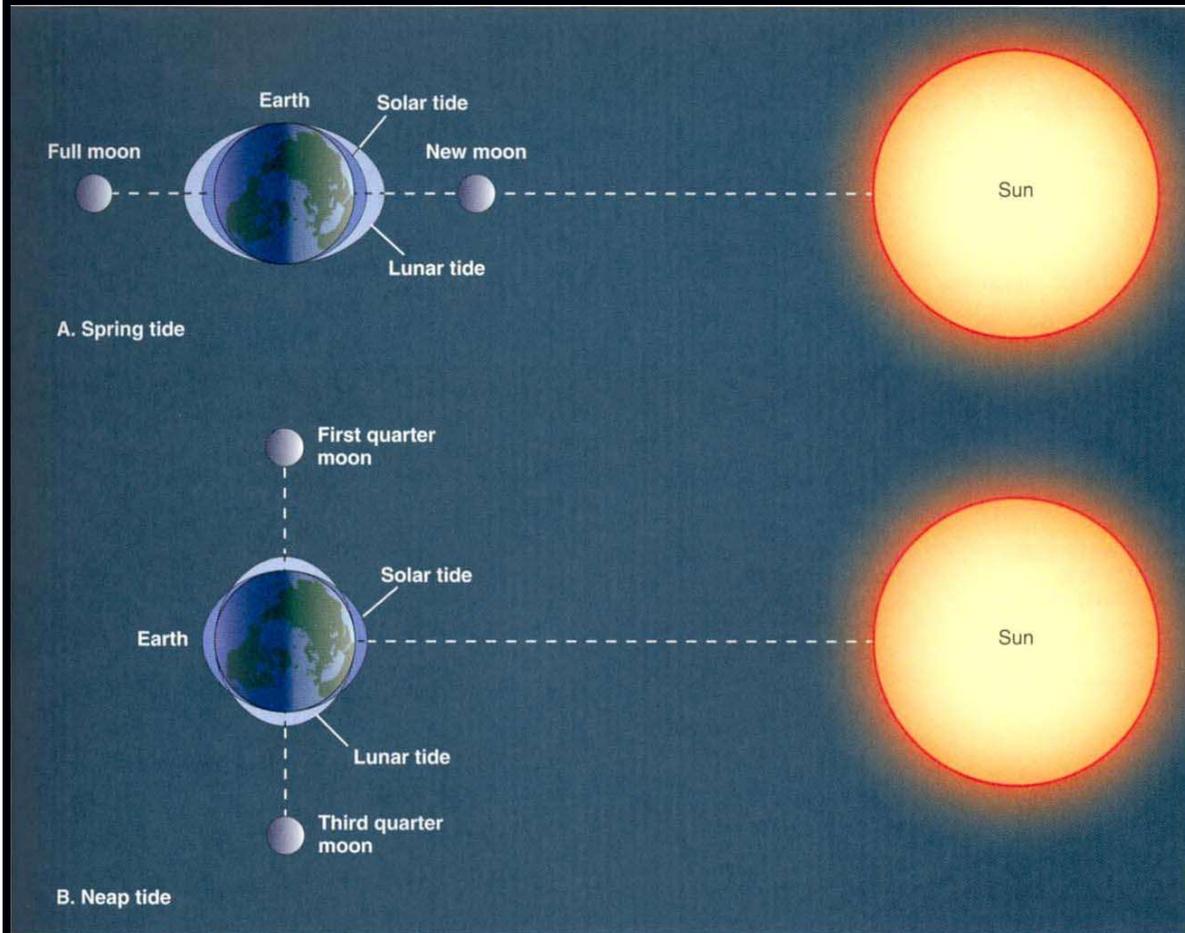


Fig. 4.1: Tide-raising force on a stationary earth.



$$F = G \frac{M * m}{d^2}$$

As forças gravitacionais e centrífugas responsáveis pelas marés.



O ciclo Lunar e as marés vivas ou Mortas

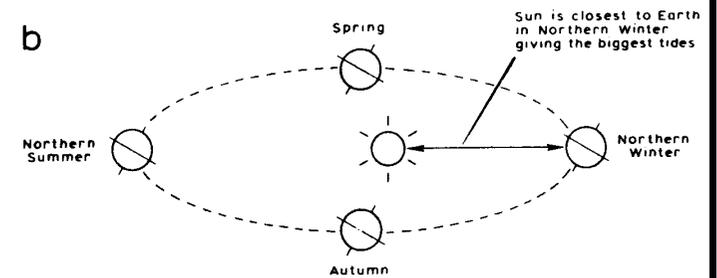
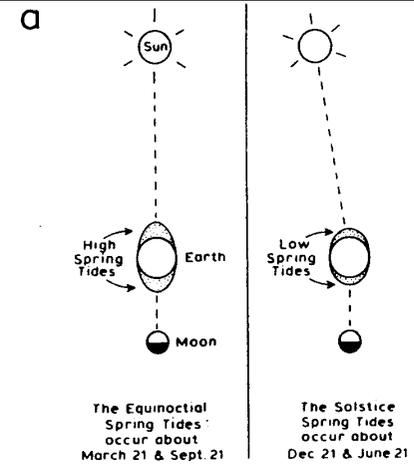
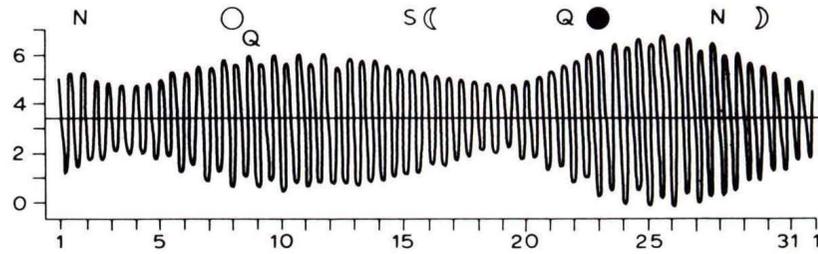


FIGURE 10-8 Earth-Moon-Sun Positions and the Tides.

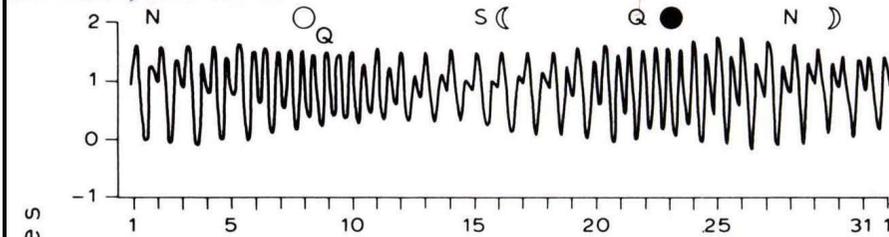
A, When the moon is in the new or full position, the tidal bulges created by the sun and moon are aligned, producing constructive interference and a therefore larger bulges, which "spring forth" as *spring tides*. B, **bottom:** When the moon is positioned halfway between the new and full phases (called the first and third quarters), the tidal bulge produced by the moon is at right angles to the bulge created by the sun. The bulges tend to cancel each other (destructive interference), and the resulting bulges are smaller, called *neap tides*. New moon and full moon phases produce spring tides with maximum tidal ranges, while the first and third quarter phases of the moon produce neap tides with minimal tidal ranges. From The Tasa Collection: Shorelines. Published by Macmillan Publishing Co., New York. Copyright © 1986, by Tasa Graphic Arts, Inc. All rights reserved.

Extraído de H. V. Thurman, 1997

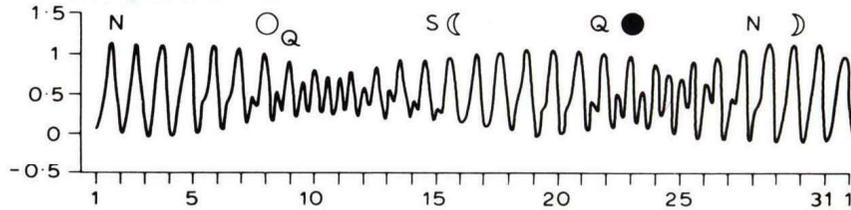
53°36'N; 0°11'W IMMINGHAM : semidiurnal form



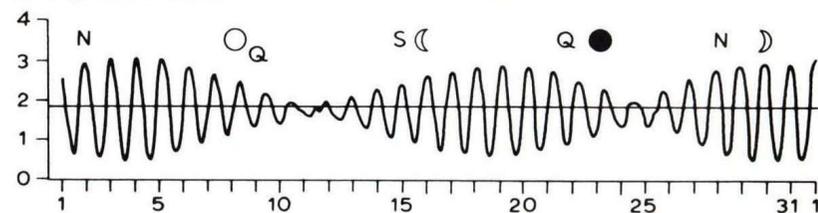
37°48'N; 122°24'W SAN FRANCISCO : mixed, predominantly semidiurnal form



14°36'N; 120°59'E MANILA : mixed, predominantly diurnal form



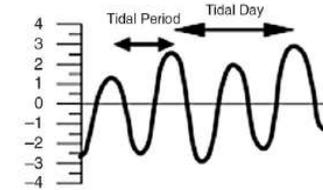
20°41'N; 106°48'E DO - SON : diurnal form



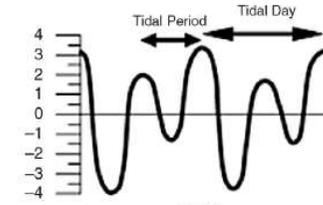
Tipos de marés. Semidiurnas, mistas e diurnas

(A)

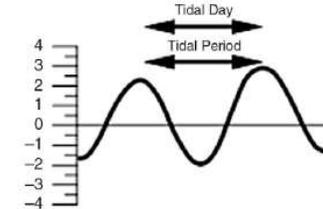
Semidiurnal: Two equal high and low tides per day



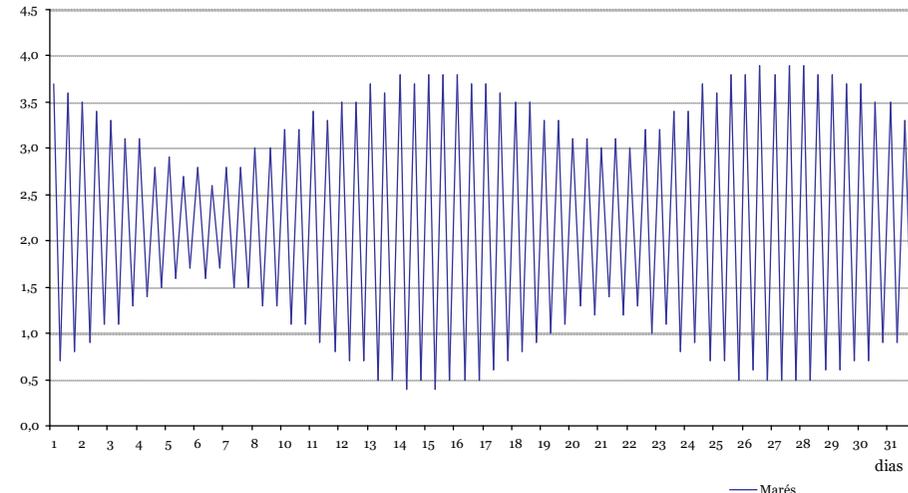
Mixed: Two unequal high and low tides per day



Diurnal: One high tide and one low tide per day



Amplitude das marés para Lisboa (Tejo)
Outubro 2000



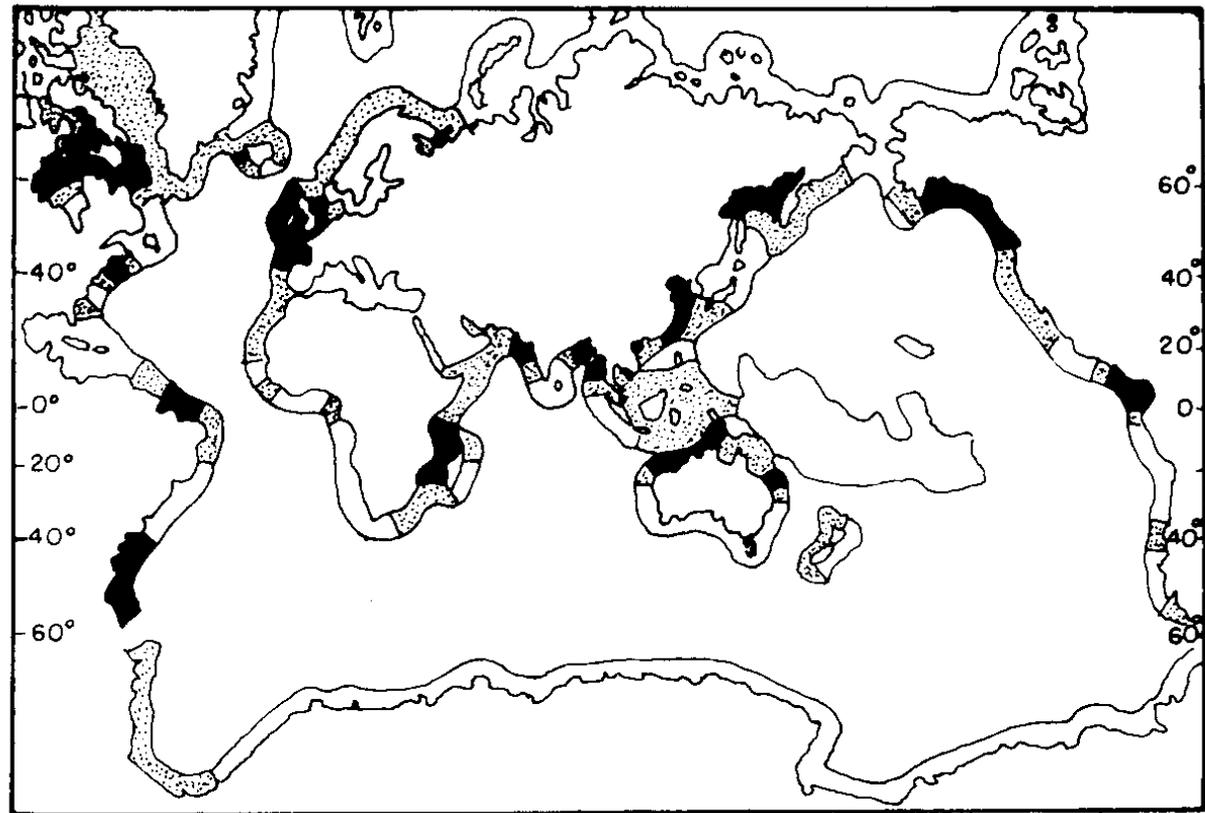
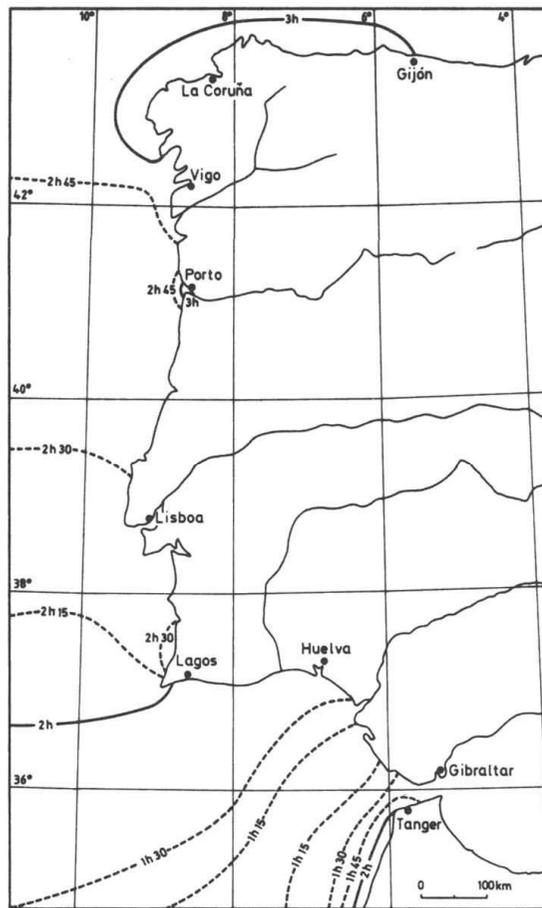
Fonte: Associação Nacional de Cruzeiros, 1999 (<http://www.edinfor.pt/anc/anemar-200010.html>)

Fig. 4.8: Four examples of tidal variability.

Extraído de J. Pethick, 1984

Gráfico das marés para Lisboa. Outubro de 2000

Propagação da maré em Portugal



Macromaré (>4m)
 Mesomaré (4-2m)
 Micromaré (<2m)

Figura 4.

As marés ao largo do litoral português.

Isolinhas da maré M2, referidas à hora de passagem da lua média pelo meridiano de Greenwich, segundo *Marineleitung*, Berlin, 1931.

Figura preparada por H. Lautensach, em 1944, para a edição portuguesa da Geografia de Portugal.

Os diferentes tipos regimes de amplitudes de marés.