

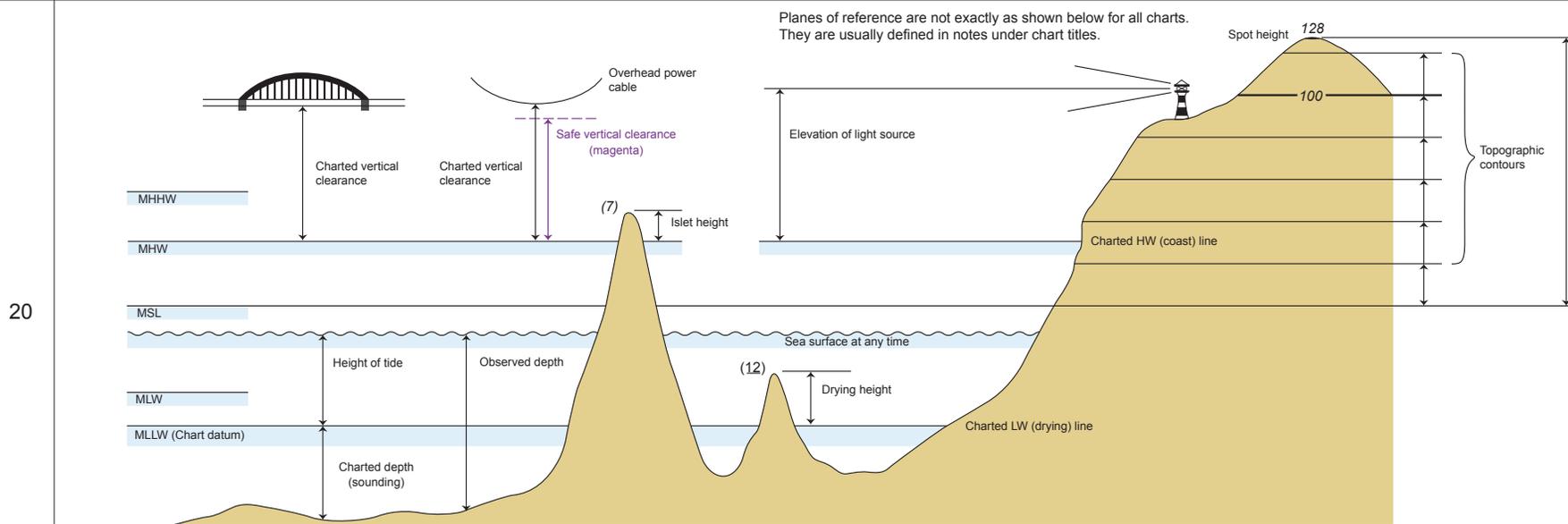
# H Tides, Currents

Terms Relating to Tidal Levels					
INT Terms			Supplementary National Terms (see I-t for other terms and symbols)		
No.	Term	Description	No.	Term	Description
1	CD	Chart Datum, Datum for sounding reduction	a	HW	High Water
2	LAT	Lowest Astronomical Tide	b	HHW	Higher High Water
3	HAT	Highest Astronomical Tide	c	LW	Low Water
4	MLW	Mean Low Water	d	LWD	Low Water Datum
5	MHW	Mean High Water	e	LLW	Lower Low Water
6	MSL	Mean Sea Level	f	MTL	Mean Tide Level
7		Height datum, Land survey datum	g	ISLW	Indian Spring Low Water
8	MLWS	Mean Low Water Springs	h	HWF&C	High Water Full and Change (Vulgar establishment of the port)
9	MHWS	Mean High Water Springs	i	LWF&C	Low Water Full and Change
10	MLWN	Mean Low Water Neaps	j	CRD	Columbia River Datum
11	MHWN	Mean High Water Neaps	k	GCLWD	Gulf Coast Low Water Datum
12	MLLW	Mean Lower Low Water			
13	MHHW	Mean Higher High Water			
14	MHLW	Mean Higher Low Water			
15	MLHW	Mean Lower High Water			
16	Sp	Spring tide			
17	Np	Neap tide			

No. \_\_\_\_\_

## Tidal Levels and Charted Data

Tide Gauge → T



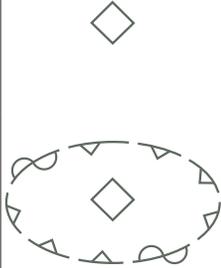
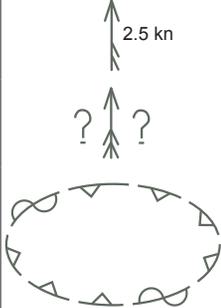
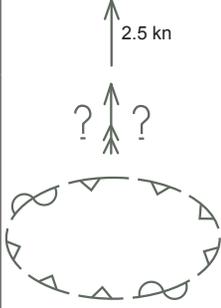
**Notes:**

- 1) The numbers 128, 100, (7) and (12), shown above, are examples of how spot heights, topographic contour labels, islet heights and drying heights appear on NOAA paper charts. The numbers are enclosed in parentheses if the value is offset into the water to more clearly show the islet or rock.
- 2) On NOAA charts, except for lake charts, the HW (coast) line is equal to the MHW line.

## Tide Tables

No.	INT	Description	NOAA																																																																			
30	<p>Tidal Levels referred to datum of soundings</p> <table border="1"> <thead> <tr> <th rowspan="2">Place</th> <th rowspan="2">Lat N</th> <th rowspan="2">Long E</th> <th colspan="4">Heights in metres above datum</th> </tr> <tr> <th>MHWS</th> <th>MHWN</th> <th>MLWN</th> <th>MLWS</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Norderney, Riffgat Langeoog</td> <td>53°42'</td> <td>7°09'</td> <td>3.2</td> <td>2.8</td> <td>0.9</td> <td>0.4</td> </tr> <tr> <td>53°43'</td> <td>7°30'</td> <td>3.4</td> <td>3.0</td> <td>0.9</td> <td>0.4</td> </tr> <tr> <td></td> <td></td> <td></td> <th>MHHW</th> <th>MLHW</th> <th>MHLW</th> <th>MLLW</th> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Place	Lat N	Long E	Heights in metres above datum				MHWS	MHWN	MLWN	MLWS	Norderney, Riffgat Langeoog	53°42'	7°09'	3.2	2.8	0.9	0.4	53°43'	7°30'	3.4	3.0	0.9	0.4				MHHW	MLHW	MHLW	MLLW								<p>Tabular statement of semi-diurnal or diurnal tides</p> <p>Note: The order of the columns of levels will be the same as that used in national tables of tidal predictions.</p>	<p>TIDAL INFORMATION</p> <table border="1"> <thead> <tr> <th rowspan="2">PLACE</th> <th rowspan="2">Height referred to datum of soundings (MLLW)</th> <th colspan="3">Height referred to datum of soundings (MLLW)</th> </tr> <tr> <th>NAME</th> <th>(LAT/LONG)</th> <th>Mean Higher High Water</th> <th>Mean High Water</th> <th>Mean Low Water</th> </tr> </thead> <tbody> <tr> <td>Baltimore, Ft. McHenry</td> <td>feet</td> <td>(39°16'N/76°35'W)</td> <td>1.7</td> <td>1.4</td> <td>0.2</td> </tr> <tr> <td>Annapolis, U.S. Naval Academy</td> <td>feet</td> <td>(38°59'N/76°29'W)</td> <td>1.4</td> <td>1.2</td> <td>0.2</td> </tr> <tr> <td>Washington D.C., Washington Channel</td> <td>feet</td> <td>(38°52'N/77°01'W)</td> <td>3.2</td> <td>2.9</td> <td>0.1</td> </tr> </tbody> </table> <p>Dashes (---) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from <a href="http://tidesandcurrents.noaa.gov">http://tidesandcurrents.noaa.gov</a>.</p> <p>(Nov 2011)</p>	PLACE	Height referred to datum of soundings (MLLW)	Height referred to datum of soundings (MLLW)			NAME	(LAT/LONG)	Mean Higher High Water	Mean High Water	Mean Low Water	Baltimore, Ft. McHenry	feet	(39°16'N/76°35'W)	1.7	1.4	0.2	Annapolis, U.S. Naval Academy	feet	(38°59'N/76°29'W)	1.4	1.2	0.2	Washington D.C., Washington Channel	feet	(38°52'N/77°01'W)	3.2	2.9	0.1
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40		Flood tide stream with rate					<p>Flood stream, rate at spring tides</p> <p>Current or tidal stream whose direction is not known</p> <p>Boundary of an area for which there is tidal information</p>																																																												
41		Ebb tide stream					<p>Ebb stream, rate at spring tides</p> <p>Current or tidal stream whose direction is not known</p> <p>Boundary of an area for which there is tidal information</p>																																																												

No.	INT	Description	NOAA	NGA	Other NGA	ECDIS
42		Current in restricted waters				 2.5 kn Non-tidal current
43	2.5 – 4.5 kn Jan – Mar (see Note)	Ocean current with rates and seasons				
44		Overfalls, tide rips, races	Tide rips  symbol used only in small areas			 Overfalls, tide rips; eddies; breakers as point, line, and area
45		Eddies	Eddies  symbol used only in small areas			
46		Position of tabulated tidal stream data with designation				 Point for which a tidal stream table is available
47		Offshore position for which tidal levels are tabulated				

**Supplementary National Symbols (Supplementary national terms relating to tidal levels are listed after H 17)**

l	Stream	Str			
m	Current, general, with rate				
n	Velocity, Rate	vel			
o	Knots	kn			
p	Height	ht			
q	Flood	fl			
r	New moon				
s	Full moon				
t	Current diagram				
u	Gulf Stream Limits				Approximate location of Axis of Gulf Stream