

draft = 20 in

									MBARI Buoy		
	d = 12 in	d = 24 in	d = 32 in	d = 36 in	d = 48 in	d = 60 in	d = 72 in	d = 84 in	d = 96 in	d = 108 in	d = 120 in
Displacement [m^3]	0.04	0.15	0.26	0.33	0.59	0.93	1.33	1.82	2.37	3.00	3.71
Displ. [kg SeaWater]	38.0	152.0	270.2	341.9	607.9	949.8	1367.8	1861.7	2431.6	3077.5	3799.3
Displ. [lbs SeaWater]	83.6	334.3	594.4	752.3	1337.4	2089.6	3009.1	4095.7	5349.5	6770.4	8358.5
WaterPlane Area [m^2]	0.07	0.29	0.52	0.66	1.17	1.82	2.63	3.58	4.67	5.91	7.30
Waterplane I [m^4]	0.0004	0.007	0.021	0.034	0.11	0.26	0.55	1.02	1.74	2.78	4.24
I/Disp [m]	0.011	0.046	0.081	0.103	0.183	0.286	0.411	0.560	0.732	0.926	1.143

Wave Period	Wave Frequency		WaveLength	Wave Number
[s]	[Hz]	[rad/s]	[m]	k [1/m]
5	0.200	1.257	39.0	0.161
5.5	0.182	1.142	47.2	0.133
6	0.167	1.047	56.2	0.112
6.5	0.154	0.967	66.0	0.095
7	0.143	0.898	76.5	0.082
7.5	0.133	0.838	87.8	0.072
8	0.125	0.785	99.9	0.063
8.5	0.118	0.739	112.8	0.056
9	0.111	0.698	126.5	0.050
9.5	0.105	0.661	140.9	0.045
10	0.100	0.628	156.1	0.040
10.5	0.095	0.598	172.1	0.037
11	0.091	0.571	188.9	0.033
11.5	0.087	0.546	206.5	0.030
12	0.083	0.524	224.8	0.028
12.5	0.080	0.503	244.0	0.026
13	0.077	0.483	263.9	0.024
13.5	0.074	0.465	284.5	0.022
14	0.071	0.449	306.0	0.021
14.5	0.069	0.433	328.3	0.019
15	0.067	0.419	351.3	0.018