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Arun Platform Tide Predictions

Tide predictions are produced using UTide. Full detail on the tide prediction method and validation is available in Dhoop (2024).

Tide Levels

Datum	Elevation (m OD)	Elevation (m CD)
HAT	3.56	6.61
MHWS	2.80	5.85
MHWN	1.54	4.59
MSL	0.21	3.26
MLWN	-1.11	1.94
MLWS	-2.37	0.68
LAT	-3.05	0.00

Harmonic Constituents

Constituent #	Name	Amplitude	Amplitude CI	Phase	Phase CI
1	M2	1.960	0.001	321.0	0.0
2	S2	0.629	0.001	10.0	0.1
3	N2	0.374	0.001	300.0	0.1
4	K2	0.180	0.001	8.5	0.3
5	L2	0.089	0.001	326.0	0.5
6	K1	0.081	0.001	107.0	0.4
7	NU2	0.080	0.001	293.0	0.6
8	SA	0.074	0.003	289.0	3.0
9	M4	0.067	0.000	311.0	0.3
10	2N2	0.052	0.001	274.0	0.9
11	MU2	0.051	0.001	18.1	0.8
12	LDA2	0.049	0.001	319.0	0.9
13	MS4	0.044	0.000	10.5	0.3
14	T2	0.036	0.001	355.0	1.4
15	2MS6	0.033	0.000	184.0	0.3
16	MSN2	0.030	0.001	195.0	1.7
17	M6	0.029	0.000	140.0	0.4
18	P1	0.028	0.001	100.0	1.3
19	SSA	0.028	0.004	138.0	7.4
20	MN4	0.023	0.000	290.0	0.7
21	O1	0.017	0.001	342.0	2.1
22	2MN6	0.015	0.000	117.0	0.9
23	MK3	0.013	0.000	64.6	0.7
24	EPS2	0.013	0.001	30.9	3.8
25	MK4	0.013	0.000	12.8	1.2
26	MKS2	0.013	0.001	91.3	3.2
27	H1	0.013	0.001	360.0	13.4
28	MF	0.012	0.004	192.0	16.5
29	M8	0.012	0.000	19.6	0.6
30	MSM	0.012	0.003	356.0	25.1

31	SO1	0.010	0.001	275.0	3.4
32	MM	0.010	0.003	152.0	21.8
33	TAU1	0.010	0.001	180.0	3.5
34	2MK6	0.009	0.000	185.0	1.1
35	MO3	0.009	0.000	288.0	1.2
36	2SM6	0.009	0.000	236.0	1.4
37	MSF	0.008	0.004	35.0	22.6
38	S1	0.008	0.001	227.0	4.6
39	GAM2	0.007	0.001	322.0	6.2
40	J1	0.007	0.001	220.0	5.7
41	OO1	0.006	0.001	265.0	5.1
42	OQ2	0.006	0.001	246.0	7.7
43	SIG1	0.006	0.001	346.0	6.1
44	SK3	0.006	0.000	122.0	1.7
45	SN4	0.005	0.000	52.4	3.3
46	NO1	0.005	0.001	163.0	7.2
47	MSK6	0.005	0.000	236.0	2.2
48	SO3	0.005	0.000	359.0	2.3
49	ETA2	0.004	0.001	93.0	10.4
50	S4	0.004	0.000	109.0	4.2
51	R2	0.003	0.001	65.8	13.6
52	PI1	0.003	0.001	74.7	12.5
53	M3	0.003	0.000	321.0	3.1
54	H2	0.003	0.001	45.4	19.2
55	2MK5	0.003	0.000	17.3	2.0
56	SK4	0.002	0.000	111.0	7.0
57	CHI1	0.002	0.001	19.7	18.9
58	PHI1	0.002	0.001	74.6	16.9
59	BET1	0.002	0.001	353.0	30.4
60	2Q1	0.002	0.001	235.0	22.3
61	Q1	0.002	0.001	360.0	54.9
62	PSI1	0.001	0.001	194.0	25.2
63	ALP1	0.001	0.001	28.1	23.6
64	RHO1	0.001	0.001	150.0	27.1
65	3MK7	0.001	0.000	217.0	4.4
66	THE1	0.001	0.001	283.0	37.2
67	UPS1	0.001	0.001	326.0	66.9
68	2SK5	0.000	0.000	12.3	17.2

Brighton Marina Tide Predictions

Tide predictions are produced using UTide. Full detail on the tide prediction method and validation is available in Dhoop (2024).

Tide Levels

Datum	Elevation (m OD)	Elevation (m CD)
HAT	4.02	7.42
MHWS	3.16	6.56
MHWN	1.76	5.16
MSL	0.29	3.69
MLWN	-1.17	2.23
MLWS	-2.58	0.82
LAT	-3.18	0.22

Harmonic Constituents

Constituent #	Name	Amplitude	Amplitude CI	Phase	Phase CI
1	M2	2.170	0.002	321.0	0.1
2	S2	0.703	0.002	10.3	0.2
3	N2	0.411	0.002	299.0	0.2
4	K2	0.203	0.002	8.4	0.5
5	L2	0.106	0.002	328.0	1.3
6	NU2	0.088	0.002	291.0	1.1
7	K1	0.076	0.001	105.0	0.8
8	M4	0.075	0.001	260.0	0.5
9	SA	0.069	0.006	300.0	5.6
10	MU2	0.064	0.002	20.3	1.9
11	LDA2	0.056	0.002	316.0	2.0
12	2N2	0.053	0.002	286.0	2.1
13	MS4	0.048	0.001	317.0	0.8
14	T2	0.039	0.002	357.0	3.0
15	MSN2	0.035	0.002	193.0	3.6
16	MN4	0.028	0.001	235.0	1.4
17	P1	0.027	0.001	99.3	2.6
18	2MS6	0.026	0.000	196.0	0.8
19	M6	0.024	0.000	154.0	0.9
20	EPS2	0.020	0.002	25.6	6.0
21	MSF	0.016	0.007	54.4	21.8
22	MK3	0.016	0.000	56.8	1.5
23	MKS2	0.016	0.002	101.0	7.5
24	MK4	0.014	0.001	319.0	2.5
25	H1	0.014	0.002	356.0	10.2
26	SSA	0.014	0.006	132.0	27.1
27	TAU1	0.014	0.001	191.0	4.7
28	2MN6	0.012	0.000	128.0	1.7
29	O1	0.012	0.001	337.0	5.7
30	M8	0.012	0.000	23.2	1.2

31	SO1	0.011	0.001	275.0	5.6
32	GAM2	0.011	0.002	293.0	11.6
33	MO3	0.010	0.000	288.0	2.3
34	MF	0.009	0.007	200.0	48.6
35	MSM	0.008	0.006	356.0	151.0
36	S1	0.007	0.001	266.0	9.0
37	SK3	0.007	0.000	112.0	2.8
38	2MK6	0.007	0.000	197.0	2.9
39	J1	0.007	0.001	200.0	10.5
40	2SM6	0.007	0.000	239.0	2.6
41	OO1	0.006	0.001	254.0	11.3
42	R2	0.006	0.002	60.8	20.2
43	MM	0.006	0.006	40.5	63.8
44	SO3	0.006	0.000	9.1	3.4
45	OQ2	0.006	0.002	275.0	19.0
46	NO1	0.005	0.001	166.0	12.2
47	SIG1	0.005	0.001	344.0	12.9
48	SN4	0.005	0.001	321.0	7.3
49	ETA2	0.005	0.002	90.1	25.8
50	M3	0.004	0.000	332.0	4.3
51	H2	0.004	0.002	125.0	29.2
52	S4	0.004	0.001	36.9	9.2
53	MSK6	0.003	0.000	245.0	6.6
54	PHI1	0.002	0.001	94.2	32.6
55	SK4	0.002	0.001	17.6	20.2
56	2MK5	0.002	0.000	344.0	4.8
57	ALP1	0.002	0.001	32.6	38.2
58	CHI1	0.001	0.001	17.9	68.3
59	THE1	0.001	0.001	351.0	90.2
60	PSI1	0.001	0.001	265.0	54.8
61	UPS1	0.001	0.001	239.0	57.4
62	Q1	0.001	0.001	149.0	69.3
63	2Q1	0.001	0.001	14.7	161.0
64	PI1	0.001	0.001	93.7	92.3
65	3MK7	0.001	0.000	197.0	10.8
66	2SK5	0.001	0.000	272.0	14.3
67	BET1	0.001	0.001	241.0	114.0
68	RHO1	0.001	0.001	254.0	115.0

Deal Pier Tide Predictions

Tide predictions are produced using UTide. Full detail on the tide prediction method and validation is available in Dhoop (2024).

Tide Levels

Datum	Elevation (m OD)	Elevation (m CD)
HAT	3.45	6.85
MHWS	2.81	6.21
MHWN	1.54	4.94
MSL	0.12	3.52
MLWN	-1.30	2.10
MLWS	-2.57	0.83
LAT	-3.35	0.04

Harmonic Constituents

Constituent #	Name	Amplitude	Amplitude CI	Phase	Phase CI
1	M2	2.050	0.001	336.0	0.0
2	S2	0.634	0.001	28.1	0.1
3	N2	0.369	0.001	313.0	0.2
4	M4	0.201	0.001	227.0	0.2
5	K2	0.182	0.001	26.5	0.3
6	MS4	0.125	0.001	279.0	0.3
7	L2	0.113	0.001	345.0	0.6
8	NU2	0.093	0.001	305.0	0.7
9	MU2	0.084	0.001	61.4	0.8
10	O1	0.075	0.001	179.0	0.7
11	MN4	0.072	0.001	203.0	0.6
12	SA	0.069	0.003	282.0	2.5
13	K1	0.060	0.001	22.1	0.8
14	LDA2	0.055	0.001	336.0	1.3
15	M6	0.054	0.000	112.0	0.4
16	2MS6	0.050	0.000	161.0	0.4
17	2N2	0.041	0.001	293.0	1.6
18	MK4	0.036	0.001	279.0	1.1
19	T2	0.033	0.001	12.3	2.0
20	2MN6	0.028	0.000	88.7	0.8
21	MSN2	0.028	0.001	209.0	2.4
22	Q1	0.028	0.001	120.0	1.7
23	EPS2	0.024	0.001	48.5	2.8
24	H1	0.023	0.001	30.4	3.0
25	P1	0.022	0.001	3.1	1.9
26	M8	0.018	0.000	34.5	0.6
27	SSA	0.017	0.004	119.0	11.0
28	2MK6	0.014	0.000	164.0	1.7
29	S4	0.013	0.001	348.0	3.3
30	MKS2	0.012	0.001	116.0	4.9

31	MM	0.012	0.003	171.0	15.7
32	2SM6	0.011	0.000	221.0	2.2
33	SN4	0.011	0.001	287.0	3.7
34	MF	0.011	0.003	189.0	16.8
35	H2	0.010	0.001	180.0	5.5
36	S1	0.010	0.001	125.0	4.3
37	GAM2	0.010	0.001	320.0	6.6
38	2MK5	0.010	0.000	5.9	1.6
39	M3	0.010	0.000	44.4	1.2
40	MK3	0.008	0.000	338.0	1.8
41	MO3	0.008	0.000	81.0	1.7
42	SK4	0.008	0.001	344.0	6.2
43	MSK6	0.006	0.000	221.0	4.2
44	R2	0.006	0.001	68.1	10.3
45	SO1	0.006	0.001	216.0	7.7
46	RHO1	0.006	0.001	127.0	8.6
47	MSF	0.005	0.003	232.0	36.9
48	MSM	0.005	0.004	29.3	35.8
49	J1	0.005	0.001	156.0	9.8
50	2Q1	0.004	0.001	83.7	10.6
51	NO1	0.004	0.001	183.0	12.4
52	SIG1	0.004	0.001	337.0	12.9
53	3MK7	0.004	0.000	267.0	2.0
54	SK3	0.004	0.000	57.8	4.1
55	ETA2	0.003	0.001	107.0	16.2
56	OQ2	0.003	0.001	256.0	22.2
57	OO1	0.003	0.001	182.0	15.3
58	TAU1	0.003	0.001	133.0	16.8
59	THE1	0.002	0.001	13.5	17.5
60	PHI1	0.002	0.001	356.0	40.8
61	SO3	0.002	0.000	109.0	7.1
62	ALP1	0.002	0.001	123.0	29.9
63	PSI1	0.001	0.001	255.0	33.2
64	BET1	0.001	0.001	205.0	39.5
65	UPS1	0.001	0.001	215.0	51.5
66	PI1	0.001	0.001	356.0	177.0
67	2SK5	0.000	0.000	111.0	43.9
68	CHI1	0.000	0.001	237.0	163.0

Exmouth Marina Tide Predictions

Tide predictions are produced using UTide. Full detail on the tide prediction method and validation is available in Dhoop (2024).

Tide Levels

Datum	Elevation (m OD)	Elevation (m CD)
HAT	2.76	4.59
MHWS	1.95	3.78
MHWN	1.00	2.83
MSL	0.30	2.13
MLWN	-0.40	1.43
MLWS	-1.34	0.49
LAT	-1.91	-0.08

Harmonic Constituents

Constituent #	Name	Amplitude	Amplitude CI	Phase	Phase CI
1	M2	1.170	0.002	178.0	0.1
2	S2	0.471	0.002	238.0	0.3
3	N2	0.219	0.002	169.0	0.5
4	MU2	0.154	0.002	219.0	0.8
5	K2	0.136	0.002	235.0	0.7
6	M4	0.086	0.001	86.2	0.6
7	K1	0.084	0.001	119.0	0.4
8	L2	0.084	0.002	148.0	1.3
9	SA	0.060	0.006	306.0	5.9
10	MSF	0.055	0.006	47.0	5.4
11	O1	0.053	0.001	357.0	0.7
12	LDA2	0.052	0.002	138.0	2.0
13	M6	0.046	0.001	157.0	1.1
14	MS4	0.044	0.001	150.0	1.1
15	2MS6	0.043	0.001	212.0	1.2
16	EPS2	0.040	0.002	208.0	2.7
17	NU2	0.039	0.002	129.0	2.7
18	MSN2	0.034	0.002	14.0	2.7
19	P1	0.032	0.001	110.0	1.3
20	2N2	0.029	0.002	164.0	3.5
21	MN4	0.027	0.001	55.7	1.8
22	T2	0.027	0.002	226.0	3.6
23	MKS2	0.021	0.002	282.0	4.8
24	2MN6	0.021	0.001	136.0	2.7
25	MM	0.015	0.005	32.4	21.2
26	SSA	0.014	0.006	96.9	22.0
27	MSM	0.014	0.006	25.8	27.7
28	Q1	0.014	0.001	307.0	3.0
29	H1	0.013	0.002	196.0	8.5
30	MK4	0.012	0.001	152.0	3.9

31	MK3	0.011	0.000	200.0	1.2
32	2MK6	0.011	0.001	223.0	5.3
33	2SM6	0.011	0.001	319.0	6.3
34	ETA2	0.010	0.002	322.0	11.6
35	M3	0.009	0.000	196.0	1.6
36	M8	0.009	0.000	180.0	1.4
37	GAM2	0.008	0.002	167.0	13.3
38	SO1	0.008	0.001	294.0	6.2
39	S1	0.008	0.001	271.0	4.5
40	S4	0.007	0.001	354.0	6.8
41	H2	0.007	0.002	341.0	16.3
42	TAU1	0.007	0.001	202.0	5.7
43	MSK6	0.007	0.001	312.0	7.4
44	R2	0.006	0.002	280.0	14.8
45	SN4	0.006	0.001	283.0	9.0
46	2MK5	0.006	0.000	190.0	2.2
47	SK3	0.006	0.000	269.0	2.6
48	SK4	0.005	0.001	349.0	11.4
49	OO1	0.005	0.001	268.0	9.6
50	MO3	0.005	0.000	84.5	2.6
51	J1	0.004	0.001	214.0	9.7
52	SIG1	0.004	0.001	14.5	10.6
53	SO3	0.003	0.000	159.0	4.4
54	RHO1	0.003	0.001	292.0	12.8
55	OQ2	0.003	0.002	134.0	31.0
56	PHI1	0.003	0.001	91.5	16.6
57	3MK7	0.002	0.000	246.0	3.6
58	2Q1	0.002	0.001	261.0	23.5
59	ALP1	0.002	0.001	356.0	28.2
60	PI1	0.002	0.001	57.8	24.9
61	PSI1	0.001	0.001	162.0	32.6
62	THE1	0.001	0.001	134.0	32.7
63	NO1	0.001	0.001	187.0	42.2
64	CHI1	0.001	0.001	34.3	43.9
65	BET1	0.001	0.001	286.0	75.6
66	2SK5	0.001	0.000	286.0	21.5
67	MF	0.000	0.004	129.0	219.0
68	UPS1	0.000	0.001	217.0	85.0

Hastings Pier Tide Predictions

Tide predictions are produced using UTide. Full detail on the tide prediction method and validation is available in Dhoop (2024).

Tide Levels

Datum	Elevation (m OD)	Elevation (m CD)
HAT	4.72	8.52
MHWS	3.60	7.40
MHWN	1.92	5.72
MSL	0.18	3.98
MLWN	-1.56	2.24
MLWS	-3.25	0.55
LAT	-3.97	-0.17

Harmonic Constituents

Constituent #	Name	Amplitude	Amplitude CI	Phase	Phase CI
1	M2	2.580	0.002	324.0	0.1
2	S2	0.844	0.002	15.2	0.1
3	N2	0.480	0.002	303.0	0.2
4	K2	0.243	0.003	13.0	0.5
5	M4	0.238	0.002	222.0	0.4
6	MS4	0.154	0.001	277.0	0.5
7	L2	0.129	0.002	329.0	1.2
8	NU2	0.108	0.002	294.0	1.0
9	MU2	0.092	0.002	27.2	1.4
10	MN4	0.083	0.002	200.0	1.0
11	SA	0.072	0.006	300.0	5.0
12	LDA2	0.067	0.002	317.0	1.8
13	K1	0.062	0.001	91.9	0.9
14	2N2	0.061	0.002	286.0	2.1
15	T2	0.046	0.002	1.2	3.2
16	MK4	0.045	0.001	277.0	1.9
17	MSN2	0.040	0.002	191.0	3.4
18	M6	0.039	0.000	116.0	0.7
19	2MS6	0.037	0.000	161.0	0.6
20	EPS2	0.026	0.002	23.7	5.0
21	P1	0.022	0.001	84.8	3.1
22	2MN6	0.020	0.000	93.1	1.3
23	H1	0.020	0.002	359.0	13.1
24	MKS2	0.019	0.002	103.0	6.9
25	M8	0.018	0.000	8.6	1.1
26	MK3	0.017	0.000	24.9	1.4
27	S4	0.014	0.002	351.0	5.1
28	SN4	0.014	0.001	283.0	6.1
29	SSA	0.013	0.006	111.0	24.9
30	TAU1	0.013	0.001	186.0	4.7

31	O1	0.012	0.001	200.0	5.6
32	GAM2	0.011	0.002	309.0	13.9
33	MSF	0.011	0.006	68.0	30.9
34	SO1	0.010	0.001	265.0	6.0
35	2MK6	0.009	0.000	163.0	2.2
36	SK3	0.008	0.000	82.8	2.9
37	MF	0.008	0.006	178.0	44.2
38	2SM6	0.008	0.000	206.0	2.6
39	SK4	0.008	0.001	343.0	9.2
40	R2	0.008	0.002	59.6	17.4
41	M3	0.008	0.000	10.5	2.7
42	Q1	0.008	0.001	120.0	8.1
43	OQ2	0.007	0.002	272.0	16.0
44	J1	0.006	0.001	184.0	10.8
45	MSM	0.006	0.006	34.8	67.7
46	ETA2	0.006	0.002	93.6	22.6
47	H2	0.005	0.002	120.0	23.9
48	NO1	0.005	0.001	169.0	12.2
49	SIG1	0.005	0.001	349.0	12.7
50	OO1	0.005	0.001	247.0	13.3
51	MO3	0.005	0.000	262.0	4.9
52	MM	0.005	0.005	132.0	69.9
53	S1	0.004	0.001	209.0	16.0
54	MSK6	0.004	0.000	203.0	5.2
55	SO3	0.004	0.000	13.0	5.3
56	2MK5	0.003	0.000	271.0	4.4
57	CHI1	0.002	0.001	11.0	50.5
58	PSI1	0.002	0.001	278.0	36.3
59	PHI1	0.002	0.001	100.0	40.8
60	ALP1	0.002	0.001	18.0	44.6
61	2Q1	0.001	0.001	53.1	57.0
62	THE1	0.001	0.001	26.7	66.3
63	RHO1	0.001	0.001	128.0	62.4
64	UPS1	0.001	0.001	250.0	72.0
65	2SK5	0.001	0.000	167.0	24.7
66	BET1	0.001	0.001	172.0	119.0
67	3MK7	0.000	0.000	107.0	19.7
68	PI1	0.000	0.001	88.2	170.0

Herne Bay Tide Predictions

Tide predictions are produced using UTide. Full detail on the tide prediction method and validation is available in Dhoop (2024).

Tide Levels

Datum	Elevation (m OD)	Elevation (m CD)
HAT	3.12	5.84
MHWS	2.53	5.25
MHWN	1.49	4.21
MSL	0.19	2.91
MLWN	-1.10	1.62
MLWS	-2.14	0.58
LAT	-2.73	-0.01

Harmonic Constituents

Constituent #	Name	Amplitude	Amplitude CI	Phase	Phase CI
1	M2	1.810	0.001	349.0	0.0
2	S2	0.518	0.001	44.3	0.1
3	N2	0.307	0.001	325.0	0.3
4	K2	0.151	0.001	43.2	0.4
5	O1	0.126	0.001	188.0	0.4
6	L2	0.117	0.001	3.3	0.6
7	MU2	0.110	0.001	91.9	0.6
8	K1	0.109	0.001	8.6	0.4
9	NU2	0.092	0.001	319.0	0.8
10	M4	0.067	0.001	333.0	0.5
11	SA	0.056	0.003	273.0	2.9
12	LDA2	0.052	0.001	354.0	1.5
13	Q1	0.041	0.001	130.0	1.1
14	MO3	0.041	0.000	108.0	0.6
15	P1	0.040	0.001	349.0	1.0
16	H1	0.034	0.002	51.6	2.3
17	MK3	0.034	0.000	284.0	0.7
18	2N2	0.033	0.001	302.0	2.2
19	M6	0.032	0.000	10.6	0.5
20	2MS6	0.031	0.000	61.3	0.5
21	EPS2	0.028	0.001	72.7	2.8
22	MSN2	0.026	0.001	235.0	2.8
23	T2	0.025	0.001	27.8	3.2
24	MN4	0.024	0.001	297.0	1.4
25	MS4	0.024	0.001	31.9	1.3
26	2MN6	0.017	0.000	344.0	0.7
27	H2	0.017	0.001	256.0	4.3
28	SO3	0.015	0.000	188.0	1.4
29	MSF	0.015	0.003	53.9	12.2
30	M3	0.013	0.000	86.2	1.6

31	S1	0.012	0.001	152.0	3.7
32	GAM2	0.012	0.001	306.0	5.9
33	SSA	0.010	0.003	88.5	16.1
34	SK3	0.010	0.000	343.0	2.2
35	2MK6	0.008	0.000	58.4	1.8
36	RHO1	0.008	0.001	137.0	5.5
37	2MK5	0.007	0.000	122.0	1.2
38	MM	0.007	0.003	118.0	19.9
39	MKS2	0.007	0.001	136.0	10.4
40	J1	0.007	0.001	118.0	6.1
41	MK4	0.007	0.000	29.7	4.6
42	2SM6	0.006	0.000	127.0	2.1
43	2Q1	0.006	0.001	96.8	7.3
44	MSM	0.005	0.003	139.0	34.0
45	SO1	0.005	0.001	173.0	8.2
46	OO1	0.005	0.001	154.0	9.2
47	M8	0.004	0.000	206.0	0.9
48	SIG1	0.004	0.001	306.0	11.0
49	S4	0.004	0.001	358.0	9.0
50	R2	0.004	0.001	114.0	20.0
51	MSK6	0.004	0.000	127.0	3.7
52	3MK7	0.003	0.000	334.0	1.7
53	PHI1	0.003	0.001	351.0	15.3
54	MF	0.003	0.003	147.0	64.2
55	TAU1	0.003	0.001	96.1	16.1
56	SN4	0.003	0.001	269.0	10.7
57	NO1	0.002	0.001	185.0	19.1
58	OQ2	0.002	0.001	271.0	36.1
59	BET1	0.002	0.001	173.0	18.6
60	SK4	0.002	0.001	359.0	51.2
61	ALP1	0.002	0.001	155.0	21.1
62	PSI1	0.002	0.001	246.0	20.8
63	ETA2	0.002	0.002	144.0	37.7
64	THE1	0.002	0.001	18.3	22.8
65	UPS1	0.001	0.001	220.0	34.7
66	CHI1	0.001	0.001	275.0	35.8
67	PI1	0.001	0.001	321.0	81.5
68	2SK5	0.000	0.000	169.0	73.3

Lymington Tide Predictions

Tide predictions are produced using UTide. Full detail on the tide prediction method and validation is available in Dhoop (2024).

Tide Levels

Datum	Elevation (m OD)	Elevation (m CD)
HAT	1.50	3.48
MHWS	1.22	3.20
MHWN	0.73	2.71
MSL	0.16	2.14
MLWN	-0.42	1.56
MLWS	-0.91	1.07
LAT	-1.99	-0.01

Harmonic Constituents

Constituent #	Name	Amplitude	Amplitude CI	Phase	Phase CI
1	M2	0.822	0.000	318.0	0.0
2	S2	0.245	0.000	355.0	0.1
3	M4	0.188	0.001	20.1	0.3
4	N2	0.174	0.000	292.0	0.1
5	MS4	0.124	0.001	79.1	0.4
6	M6	0.094	0.001	129.0	0.4
7	2MS6	0.093	0.001	177.0	0.4
8	K1	0.089	0.001	113.0	0.4
9	K2	0.070	0.000	354.0	0.4
10	MN4	0.068	0.001	358.0	0.8
11	SA	0.060	0.004	290.0	3.9
12	2MN6	0.051	0.001	104.0	0.9
13	MK4	0.037	0.001	80.6	1.2
14	NU2	0.035	0.000	300.0	0.6
15	O1	0.033	0.001	352.0	1.2
16	P1	0.032	0.001	106.0	1.3
17	L2	0.031	0.001	352.0	0.9
18	MU2	0.028	0.000	201.0	1.0
19	2MK6	0.027	0.001	178.0	1.5
20	2N2	0.024	0.000	268.0	1.0
21	2SM6	0.020	0.001	236.0	2.1
22	SSA	0.018	0.004	141.0	12.9
23	LDA2	0.017	0.000	352.0	1.4
24	T2	0.016	0.000	349.0	1.5
25	SN4	0.015	0.001	100.0	3.4
26	M8	0.014	0.000	121.0	0.6
27	MF	0.014	0.003	201.0	17.1
28	S4	0.013	0.001	171.0	3.8
29	MSK6	0.012	0.001	233.0	3.5
30	MSM	0.012	0.004	1.7	56.1

31	MK3	0.011	0.000	120.0	1.0
32	MM	0.011	0.004	188.0	20.9
33	MSN2	0.010	0.000	234.0	2.1
34	SO1	0.010	0.001	282.0	4.4
35	TAU1	0.010	0.001	184.0	3.9
36	S1	0.009	0.001	257.0	3.7
37	EPS2	0.008	0.000	151.0	3.0
38	SK4	0.008	0.001	168.0	7.1
39	J1	0.006	0.001	214.0	6.1
40	H2	0.006	0.000	33.8	4.2
41	OO1	0.006	0.001	267.0	7.5
42	Q1	0.006	0.001	314.0	6.8
43	MO3	0.006	0.000	296.0	2.0
44	M3	0.005	0.000	195.0	2.3
45	SIG1	0.005	0.001	354.0	7.5
46	SK3	0.004	0.000	197.0	2.4
47	NO1	0.004	0.001	171.0	10.8
48	OQ2	0.003	0.000	236.0	6.9
49	MKS2	0.003	0.000	188.0	8.8
50	H1	0.002	0.000	170.0	10.5
51	GAM2	0.002	0.000	303.0	10.5
52	PI1	0.002	0.001	78.4	17.9
53	SO3	0.002	0.000	24.9	4.9
54	PHI1	0.002	0.001	96.1	21.4
55	ETA2	0.002	0.000	312.0	14.3
56	2MK5	0.002	0.000	134.0	3.9
57	CHI1	0.002	0.001	26.9	23.7
58	R2	0.001	0.000	351.0	19.0
59	2Q1	0.001	0.001	295.0	32.7
60	BET1	0.001	0.001	357.0	70.4
61	ALP1	0.001	0.001	340.0	27.7
62	RHO1	0.001	0.001	263.0	40.6
63	THE1	0.001	0.001	81.1	53.6
64	PSI1	0.001	0.001	219.0	66.6
65	MSF	0.001	0.003	229.0	171.0
66	UPS1	0.000	0.001	302.0	103.0
67	3MK7	0.000	0.000	56.5	20.3
68	2SK5	0.000	0.000	50.8	29.1

Penarth Tide Predictions

Tide predictions are produced using UTide. Full detail on the tide prediction method and validation is available in Dhoop (2024).

Tide Levels

Datum	Elevation (m OD)	Elevation (m CD)
HAT	7.63	13.93
MHWS	6.50	12.80
MHWN	3.59	9.89
MSL	1.02	7.32
MLWN	-1.55	4.75
MLWS	-4.46	1.84
LAT	-6.47	-0.17

Harmonic Constituents

Constituent #	Name	Amplitude	Amplitude CI	Phase	Phase CI
1	M2	4.030	0.006	189.0	0.1
2	S2	1.450	0.005	245.0	0.2
3	N2	0.734	0.006	175.0	0.4
4	K2	0.440	0.005	245.0	0.7
5	MU2	0.386	0.004	243.0	0.8
6	L2	0.241	0.005	176.0	1.2
7	NU2	0.175	0.006	147.0	2.0
8	LDA2	0.135	0.006	162.0	2.2
9	M4	0.126	0.001	23.4	0.5
10	2N2	0.107	0.005	159.0	2.9
11	EPS2	0.091	0.005	227.0	3.5
12	T2	0.086	0.005	240.0	3.4
13	MSN2	0.077	0.005	39.7	4.3
14	2MS6	0.074	0.001	283.0	0.6
15	O1	0.074	0.001	360.0	1.0
16	K1	0.070	0.001	135.0	0.7
17	SA	0.065	0.009	317.0	7.7
18	MN4	0.064	0.001	345.0	1.1
19	MKS2	0.061	0.005	314.0	5.4
20	M6	0.057	0.001	239.0	0.8
21	MS4	0.053	0.001	30.1	1.3
22	M3	0.049	0.001	191.0	1.0
23	H2	0.034	0.005	264.0	8.9
24	2MK6	0.030	0.001	301.0	1.7
25	MF	0.030	0.009	260.0	16.2
26	2SM6	0.030	0.001	315.0	1.5
27	H1	0.029	0.005	206.0	9.7
28	MSF	0.029	0.008	95.1	15.0
29	P1	0.027	0.001	126.0	2.0
30	MK4	0.026	0.001	343.0	3.0

31	2MN6	0.026	0.001	225.0	1.8
32	Q1	0.026	0.001	302.0	2.0
33	ETA2	0.025	0.005	325.0	13.2
34	MSK6	0.024	0.001	332.0	1.9
35	GAM2	0.021	0.006	170.0	14.0
36	SK3	0.021	0.001	297.0	1.9
37	SN4	0.019	0.001	357.0	4.4
38	S1	0.019	0.001	293.0	3.3
39	OQ2	0.018	0.006	146.0	17.7
40	SSA	0.014	0.008	267.0	34.5
41	R2	0.012	0.005	246.0	27.4
42	MK3	0.012	0.001	197.0	3.9
43	SK4	0.011	0.001	358.0	10.4
44	MM	0.011	0.008	136.0	43.8
45	MO3	0.009	0.001	131.0	4.8
46	NO1	0.008	0.001	56.9	6.8
47	RHO1	0.007	0.001	310.0	9.0
48	2Q1	0.006	0.001	260.0	11.0
49	TAU1	0.005	0.001	270.0	10.9
50	SO3	0.004	0.001	166.0	10.1
51	MSM	0.004	0.006	328.0	153.0
52	SO1	0.004	0.001	0.1	36.4
53	PHI1	0.003	0.001	104.0	21.2
54	SIG1	0.003	0.001	181.0	17.1
55	M8	0.003	0.000	184.0	3.0
56	THE1	0.002	0.001	151.0	26.0
57	PSI1	0.002	0.001	126.0	25.2
58	CHI1	0.002	0.001	63.7	25.9
59	2MK5	0.002	0.000	102.0	7.6
60	PI1	0.002	0.001	66.1	24.5
61	ALP1	0.001	0.001	138.0	53.9
62	S4	0.001	0.001	296.0	63.8
63	UPS1	0.001	0.001	173.0	53.8
64	J1	0.001	0.001	154.0	55.5
65	BET1	0.001	0.001	106.0	55.3
66	OO1	0.001	0.001	316.0	59.3
67	3MK7	0.001	0.000	133.0	11.7
68	2SK5	0.001	0.000	85.2	21.4

Port Isaac Tide Predictions

Tide predictions are produced using UTide. Full detail on the tide prediction method and validation is available in Dhoop (2024).

Tide Levels

Datum	Elevation (m OD)	Elevation (m CD)
HAT	4.84	8.64
MHWS	3.72	7.52
MHWN	1.95	5.75
MSL	0.37	4.17
MLWN	-1.20	2.60
MLWS	-2.97	0.83
LAT	-3.97	-0.17

Harmonic Constituents

Constituent #	Name	Amplitude	Amplitude CI	Phase	Phase CI
1	M2	2.460	0.001	147.0	0.0
2	S2	0.883	0.001	191.0	0.1
3	N2	0.474	0.001	128.0	0.1
4	K2	0.255	0.001	189.0	0.2
5	NU2	0.099	0.001	120.0	0.6
6	L2	0.098	0.001	145.0	0.5
7	MU2	0.087	0.001	169.0	0.6
8	SA	0.068	0.005	292.0	4.5
9	K1	0.063	0.000	117.0	0.4
10	O1	0.063	0.000	346.0	0.5
11	2N2	0.062	0.001	111.0	0.8
12	M4	0.060	0.000	251.0	0.3
13	T2	0.049	0.001	186.0	1.0
14	LDA2	0.042	0.001	129.0	1.3
15	SSA	0.025	0.005	112.0	13.0
16	MN4	0.024	0.000	214.0	0.7
17	MS4	0.024	0.000	308.0	0.6
18	EPS2	0.021	0.001	150.0	2.6
19	P1	0.021	0.000	109.0	1.0
20	M3	0.021	0.000	84.8	0.7
21	MSN2	0.020	0.001	0.3	4.9
22	Q1	0.020	0.000	291.0	1.3
23	H2	0.017	0.001	248.0	3.0
24	H1	0.014	0.001	142.0	3.9
25	MF	0.014	0.004	217.0	19.8
26	ETA2	0.010	0.001	235.0	5.9
27	S1	0.009	0.000	250.0	2.6
28	M6	0.009	0.000	94.1	1.0
29	MM	0.008	0.004	187.0	33.9
30	MSM	0.008	0.005	3.2	51.4

31	GAM2	0.008	0.001	141.0	6.3
32	MKS2	0.008	0.001	254.0	7.6
33	R2	0.007	0.001	206.0	6.9
34	2MS6	0.007	0.000	110.0	1.1
35	SK3	0.007	0.000	197.0	2.0
36	MK4	0.007	0.000	307.0	2.6
37	OQ2	0.007	0.001	84.3	6.3
38	2MN6	0.006	0.000	70.7	1.5
39	2Q1	0.004	0.000	248.0	6.8
40	RHO1	0.004	0.001	293.0	6.7
41	SO1	0.003	0.000	18.0	7.0
42	S4	0.003	0.000	290.0	4.5
43	MSF	0.003	0.005	70.2	88.5
44	NO1	0.003	0.001	42.7	8.3
45	2SM6	0.003	0.000	117.0	2.9
46	MO3	0.003	0.000	130.0	5.6
47	MK3	0.002	0.000	42.1	6.4
48	PSI1	0.002	0.000	98.3	13.2
49	SN4	0.002	0.000	251.0	8.1
50	PI1	0.002	0.000	65.8	13.0
51	M8	0.002	0.000	133.0	2.2
52	2MK6	0.002	0.000	108.0	5.1
53	SK4	0.002	0.000	284.0	10.8
54	PHI1	0.002	0.000	87.7	18.1
55	MSK6	0.002	0.000	118.0	5.0
56	TAU1	0.002	0.000	261.0	17.6
57	BET1	0.001	0.000	325.0	25.9
58	ALP1	0.001	0.000	282.0	29.0
59	3MK7	0.001	0.000	232.0	4.5
60	SO3	0.001	0.000	119.0	17.3
61	SIG1	0.001	0.000	252.0	30.6
62	OO1	0.001	0.000	303.0	31.3
63	THE1	0.001	0.000	162.0	33.8
64	2MK5	0.001	0.000	246.0	7.5
65	CHI1	0.000	0.000	66.3	71.2
66	UPS1	0.000	0.000	38.9	72.8
67	J1	0.000	0.000	210.0	57.5
68	2SK5	0.000	0.000	180.0	25.4

Sandown Pier Tide Predictions

Tide predictions are produced using UTide. Full detail on the tide prediction method and validation is available in Dhoop (2024).

Tide Levels

Datum	Elevation (m OD)	Elevation (m CD)
HAT	2.40	4.84
MHWS	1.96	4.40
MHWN	1.18	3.62
MSL	0.32	2.76
MLWN	-0.55	1.89
MLWS	-1.33	1.11
LAT	-2.04	0.40

Harmonic Constituents

Constituent #	Name	Amplitude	Amplitude CI	Phase	Phase CI
1	M2	1.250	0.001	319.0	0.0
2	S2	0.388	0.001	3.0	0.1
3	N2	0.248	0.001	295.0	0.1
4	M4	0.158	0.001	357.0	0.2
5	K2	0.111	0.000	1.7	0.3
6	MS4	0.101	0.001	51.4	0.3
7	K1	0.087	0.001	110.0	0.4
8	SA	0.065	0.004	287.0	3.5
9	MN4	0.057	0.001	333.0	0.6
10	L2	0.054	0.001	335.0	0.6
11	NU2	0.052	0.001	294.0	0.6
12	2MS6	0.045	0.000	157.0	0.4
13	M6	0.042	0.000	112.0	0.4
14	2N2	0.032	0.001	271.0	1.0
15	P1	0.030	0.001	103.0	1.3
16	MK4	0.030	0.001	51.9	1.3
17	O1	0.028	0.001	347.0	1.4
18	LDA2	0.027	0.001	331.0	1.0
19	T2	0.023	0.001	352.0	1.5
20	2MN6	0.022	0.000	87.2	0.8
21	SSA	0.022	0.004	140.0	10.1
22	MSN2	0.016	0.001	211.0	2.1
23	2MK6	0.013	0.000	157.0	1.5
24	MK3	0.012	0.000	95.8	0.9
25	2SM6	0.012	0.000	210.0	1.6
26	MF	0.011	0.004	189.0	19.3
27	MM	0.010	0.004	177.0	19.1
28	SO1	0.010	0.001	278.0	3.7
29	SN4	0.010	0.001	63.7	3.4
30	TAU1	0.010	0.001	180.0	3.9

31	MSM	0.009	0.003	355.0	41.4
32	S4	0.008	0.001	130.0	3.8
33	M8	0.007	0.000	344.0	1.0
34	MSK6	0.007	0.000	205.0	2.7
35	S1	0.007	0.001	260.0	5.7
36	MO3	0.007	0.000	293.0	1.7
37	J1	0.007	0.001	209.0	5.7
38	EPS2	0.006	0.001	92.0	5.7
39	MKS2	0.006	0.000	125.0	4.6
40	SIG1	0.005	0.001	352.0	7.4
41	H1	0.005	0.001	344.0	4.5
42	MSF	0.005	0.004	30.1	40.8
43	SK4	0.005	0.001	124.0	6.4
44	GAM2	0.005	0.001	319.0	6.3
45	OO1	0.005	0.001	259.0	7.2
46	SK3	0.005	0.000	164.0	1.9
47	Q1	0.004	0.001	319.0	9.7
48	NO1	0.004	0.001	175.0	9.7
49	MU2	0.004	0.000	20.7	7.2
50	OQ2	0.004	0.000	241.0	8.8
51	SO3	0.003	0.000	16.3	2.9
52	H2	0.003	0.001	64.3	9.6
53	2MK5	0.003	0.000	66.2	2.0
54	R2	0.003	0.001	48.1	11.9
55	M3	0.003	0.000	204.0	4.0
56	PI1	0.003	0.001	78.4	17.0
57	PHI1	0.002	0.001	85.0	20.7
58	BET1	0.002	0.001	346.0	28.3
59	ETA2	0.001	0.001	20.5	19.8
60	CHI1	0.001	0.001	30.1	38.8
61	RHO1	0.001	0.001	263.0	32.0
62	ALP1	0.001	0.001	329.0	35.5
63	THE1	0.001	0.001	62.5	44.1
64	2Q1	0.001	0.001	267.0	43.8
65	PSI1	0.001	0.001	188.0	61.5
66	UPS1	0.001	0.001	299.0	69.8
67	2SK5	0.000	0.000	10.4	19.0
68	3MK7	0.000	0.000	270.0	11.1

Scarborough Tide Predictions

Tide predictions are produced using UTide. Full detail on the tide prediction method and validation is available in Dhoop (2024).

Tide Levels

Datum	Elevation (m OD)	Elevation (m CD)
HAT	3.46	6.71
MHWS	2.61	5.86
MHWN	1.46	4.71
MSL	0.33	3.58
MLWN	-0.81	2.44
MLWS	-1.96	1.29
LAT	-3.07	0.18

Harmonic Constituents

Constituent #	Name	Amplitude	Amplitude CI	Phase	Phase CI
1	M2	1.710	0.001	113.0	0.0
2	S2	0.576	0.001	156.0	0.0
3	N2	0.333	0.001	89.2	0.1
4	K2	0.165	0.000	155.0	0.2
5	O1	0.146	0.001	92.7	0.3
6	K1	0.130	0.001	256.0	0.3
7	SA	0.077	0.003	292.0	2.1
8	NU2	0.069	0.000	91.9	0.4
9	L2	0.063	0.001	132.0	0.5
10	Q1	0.050	0.001	40.4	1.0
11	2N2	0.043	0.001	66.3	0.7
12	P1	0.041	0.001	245.0	1.0
13	MS4	0.033	0.000	125.0	0.3
14	M4	0.033	0.000	90.9	0.3
15	T2	0.028	0.001	147.0	1.0
16	LDA2	0.026	0.000	119.0	1.0
17	SSA	0.015	0.003	149.0	11.2
18	MU2	0.015	0.000	76.5	1.9
19	S1	0.015	0.001	28.9	2.8
20	MN4	0.014	0.000	80.7	0.8
21	M3	0.014	0.000	102.0	0.8
22	MM	0.013	0.003	185.0	13.8
23	H1	0.013	0.001	123.0	2.3
24	MF	0.012	0.003	187.0	13.6
25	MK3	0.012	0.000	281.0	0.8
26	MSN2	0.011	0.000	347.0	2.2
27	H2	0.010	0.001	341.0	2.7
28	MO3	0.010	0.000	130.0	1.0
29	MK4	0.010	0.000	124.0	1.0
30	2MS6	0.009	0.000	21.9	0.7

31	RHO1	0.009	0.001	46.0	5.4
32	M6	0.008	0.000	314.0	1.0
33	2Q1	0.008	0.001	356.0	6.8
34	M8	0.008	0.000	75.0	0.6
35	J1	0.007	0.001	332.0	6.1
36	S4	0.007	0.000	198.0	1.3
37	ETA2	0.006	0.000	177.0	5.2
38	SO3	0.006	0.000	188.0	1.7
39	SN4	0.006	0.000	133.0	1.9
40	R2	0.006	0.000	199.0	5.8
41	GAM2	0.005	0.000	107.0	4.6
42	OO1	0.005	0.001	40.0	8.4
43	MSM	0.005	0.003	19.5	38.2
44	TAU1	0.005	0.001	5.0	10.2
45	SK3	0.005	0.000	350.0	1.9
46	OQ2	0.005	0.001	37.8	5.3
47	SIG1	0.005	0.001	343.0	9.9
48	2MK5	0.004	0.000	318.0	1.5
49	SK4	0.004	0.000	197.0	2.6
50	MKS2	0.004	0.000	239.0	7.3
51	2MN6	0.004	0.000	272.0	1.9
52	PI1	0.003	0.001	211.0	12.0
53	PHI1	0.003	0.001	266.0	14.2
54	BET1	0.003	0.001	112.0	13.3
55	NO1	0.003	0.001	186.0	14.3
56	ALP1	0.003	0.001	340.0	14.3
57	PSI1	0.003	0.001	125.0	17.2
58	2MK6	0.002	0.000	24.5	3.4
59	SO1	0.002	0.001	106.0	26.2
60	MSF	0.002	0.003	291.0	103.0
61	THE1	0.001	0.001	295.0	30.9
62	CHI1	0.001	0.001	133.0	32.0
63	UPS1	0.001	0.001	117.0	34.4
64	2SM6	0.001	0.000	106.0	7.5
65	2SK5	0.001	0.000	334.0	11.3
66	3MK7	0.001	0.000	18.2	5.1
67	MSK6	0.001	0.000	98.2	12.4
68	EPS2	0.001	0.001	129.0	56.2

Second Severn Crossing Tide Predictions

Tide predictions are produced using UTide. Full detail on the tide prediction method and validation is available in Dhoop (2024).

Tide Levels

Datum	Elevation (m OD)	Elevation (m CD)
HAT	8.37	14.87
MHWS	6.22	12.72
MHWN	3.17	9.67
MSL	0.38	6.88
MLWN	-2.41	4.09
MLWS	-5.46	1.04
LAT	-6.88	-0.38

Harmonic Constituents

Constituent #	Name	Amplitude	Amplitude CI	Phase	Phase CI
1	M2	4.310	0.005	204.0	0.1
2	S2	1.520	0.006	265.0	0.2
3	N2	0.769	0.004	191.0	0.4
4	MU2	0.522	0.004	263.0	0.6
5	K2	0.447	0.004	262.0	0.6
6	M4	0.298	0.002	357.0	0.5
7	L2	0.288	0.006	188.0	1.1
8	MS4	0.270	0.002	31.9	0.6
9	NU2	0.200	0.005	154.0	1.5
10	LDA2	0.165	0.005	183.0	1.7
11	2MS6	0.158	0.002	334.0	0.9
12	M6	0.135	0.003	274.0	0.9
13	MN4	0.133	0.002	341.0	1.0
14	EPS2	0.120	0.005	250.0	2.4
15	2N2	0.098	0.005	178.0	3.3
16	MSN2	0.093	0.005	59.5	3.1
17	MSF	0.092	0.007	50.0	4.1
18	T2	0.086	0.005	251.0	3.6
19	MK4	0.079	0.002	30.5	1.8
20	O1	0.075	0.001	6.6	0.9
21	SA	0.073	0.007	302.0	5.4
22	K1	0.070	0.001	139.0	1.1
23	SN4	0.068	0.002	40.4	1.8
24	S4	0.067	0.002	108.0	2.1
25	2MN6	0.065	0.002	248.0	2.3
26	MKS2	0.060	0.005	332.0	4.9
27	H1	0.057	0.004	247.0	5.7
28	S1	0.053	0.001	263.0	1.2
29	M3	0.048	0.001	221.0	0.9
30	SK4	0.039	0.002	102.0	3.2

31	2SM6	0.037	0.002	69.2	3.7
32	2MK6	0.036	0.002	340.0	3.5
33	H2	0.030	0.005	243.0	10.4
34	M8	0.028	0.001	73.2	1.1
35	P1	0.027	0.001	123.0	2.9
36	SK3	0.026	0.001	328.0	2.0
37	Q1	0.025	0.001	314.0	2.7
38	ETA2	0.025	0.005	352.0	12.9
39	GAM2	0.024	0.005	209.0	10.8
40	MSK6	0.023	0.003	60.8	6.1
41	MK3	0.021	0.001	235.0	2.1
42	MM	0.018	0.007	54.2	23.0
43	SSA	0.015	0.006	194.0	23.9
44	MSM	0.014	0.007	27.5	26.3
45	MO3	0.013	0.001	143.0	4.0
46	R2	0.011	0.005	316.0	28.9
47	SO3	0.010	0.001	208.0	4.7
48	OQ2	0.010	0.005	153.0	28.9
49	MF	0.010	0.006	63.5	40.2
50	NO1	0.008	0.001	126.0	8.9
51	SIG1	0.007	0.001	153.0	8.6
52	RHO1	0.006	0.001	298.0	10.7
53	SO1	0.005	0.001	38.7	10.6
54	TAU1	0.005	0.001	235.0	15.2
55	PSI1	0.005	0.001	107.0	14.5
56	2Q1	0.005	0.001	285.0	15.5
57	THE1	0.004	0.001	194.0	20.1
58	PHI1	0.003	0.001	109.0	19.6
59	3MK7	0.003	0.000	256.0	5.9
60	2MK5	0.003	0.001	136.0	11.3
61	BET1	0.003	0.001	340.0	28.6
62	2SK5	0.003	0.001	160.0	10.8
63	PI1	0.002	0.001	74.9	30.7
64	CHI1	0.002	0.001	132.0	27.5
65	J1	0.002	0.001	273.0	38.4
66	ALP1	0.001	0.001	133.0	51.9
67	UPS1	0.001	0.001	200.0	48.9
68	OO1	0.001	0.001	270.0	79.7

Swanage Pier Tide Predictions

Tide predictions are produced using UTide. Full detail on the tide prediction method and validation is available in Dhoop (2024).

Tide Levels

Datum	Elevation (m OD)	Elevation (m CD)
HAT	1.21	2.61
MHWS	0.82	2.22
MHWN	0.45	1.85
MSL	0.27	1.67
MLWN	0.09	1.49
MLWS	-0.28	1.12
LAT	-1.30	0.10

Harmonic Constituents

Constituent #	Name	Amplitude	Amplitude CI	Phase	Phase CI
1	M2	0.366	0.000	262.0	0.1
2	S2	0.185	0.001	283.0	0.2
3	M4	0.166	0.001	14.6	0.2
4	MS4	0.102	0.001	70.7	0.4
5	N2	0.101	0.000	240.0	0.3
6	K1	0.090	0.001	112.0	0.4
7	MU2	0.076	0.000	192.0	0.3
8	2MS6	0.068	0.000	115.0	0.4
9	M6	0.065	0.000	70.6	0.4
10	SA	0.061	0.004	290.0	4.0
11	MN4	0.059	0.001	350.0	0.7
12	K2	0.050	0.001	280.0	0.5
13	O1	0.042	0.001	350.0	0.8
14	2MN6	0.036	0.000	47.6	0.8
15	P1	0.031	0.001	103.0	1.1
16	MK4	0.030	0.001	70.7	1.2
17	EPS2	0.020	0.000	162.0	1.3
18	2MK6	0.020	0.000	116.0	1.3
19	2SM6	0.019	0.000	167.0	1.5
20	SSA	0.017	0.004	121.0	11.4
21	L2	0.016	0.000	77.3	1.7
22	2N2	0.016	0.000	216.0	1.4
23	LDA2	0.014	0.000	71.2	2.2
24	MF	0.012	0.004	203.0	17.5
25	MSK6	0.011	0.000	166.0	2.5
26	MK3	0.011	0.000	134.0	1.0
27	NU2	0.010	0.000	276.0	2.5
28	MSM	0.010	0.004	340.0	23.2
29	MSN2	0.010	0.001	305.0	2.4
30	MM	0.010	0.004	195.0	24.2

31	T2	0.009	0.000	280.0	2.6
32	Q1	0.009	0.001	310.0	3.8
33	SO1	0.009	0.001	285.0	4.1
34	S1	0.009	0.001	243.0	4.1
35	M3	0.008	0.000	186.0	1.1
36	SN4	0.008	0.001	87.5	4.4
37	MKS2	0.008	0.000	229.0	3.5
38	TAU1	0.007	0.001	181.0	5.4
39	S4	0.006	0.001	151.0	5.9
40	M8	0.006	0.000	6.0	0.8
41	H1	0.005	0.000	199.0	4.4
42	ETA2	0.005	0.000	302.0	4.6
43	SIG1	0.005	0.001	353.0	7.0
44	J1	0.005	0.001	209.0	7.5
45	OO1	0.005	0.001	265.0	6.8
46	MSF	0.005	0.004	66.9	45.6
47	SK3	0.005	0.000	218.0	2.2
48	SK4	0.004	0.001	151.0	12.2
49	NO1	0.004	0.001	165.0	9.9
50	MO3	0.003	0.000	312.0	3.0
51	PI1	0.003	0.000	72.3	11.6
52	H2	0.003	0.000	316.0	8.3
53	2MK5	0.003	0.000	153.0	2.6
54	OQ2	0.002	0.000	180.0	13.8
55	2Q1	0.002	0.001	265.0	16.9
56	PHI1	0.002	0.001	91.1	18.6
57	CHI1	0.002	0.001	37.9	23.2
58	RHO1	0.002	0.001	268.0	24.5
59	SO3	0.001	0.000	89.0	6.8
60	BET1	0.001	0.001	358.0	78.0
61	THE1	0.001	0.001	120.0	30.1
62	R2	0.001	0.000	288.0	24.8
63	GAM2	0.001	0.000	266.0	31.0
64	UPS1	0.001	0.001	320.0	38.5
65	PSI1	0.001	0.001	226.0	44.9
66	ALP1	0.001	0.001	326.0	50.5
67	3MK7	0.000	0.000	96.4	10.6
68	2SK5	0.000	0.000	351.0	27.6

West Bay Harbour Tide Predictions

Tide predictions are produced using UTide. Full detail on the tide prediction method and validation is available in Dhoop (2024).

Tide Levels

Datum	Elevation (m OD)	Elevation (m CD)
HAT	2.85	5.10
MHWS	1.95	4.20
MHWN	0.95	3.20
MSL	0.32	2.57
MLWN	-0.32	1.93
MLWS	-1.32	0.93
LAT	-2.14	0.11

Harmonic Constituents

Constituent #	Name	Amplitude	Amplitude CI	Phase	Phase CI
1	M2	1.140	0.001	174.0	0.0
2	S2	0.499	0.001	229.0	0.1
3	N2	0.229	0.001	163.0	0.2
4	K2	0.142	0.001	225.0	0.4
5	MU2	0.138	0.001	190.0	0.3
6	M4	0.127	0.001	60.0	0.3
7	K1	0.088	0.001	111.0	0.3
8	MS4	0.080	0.001	121.0	0.4
9	M6	0.065	0.000	78.9	0.4
10	L2	0.064	0.001	132.0	0.8
11	2MS6	0.062	0.001	120.0	0.5
12	SA	0.058	0.004	280.0	4.5
13	O1	0.054	0.001	348.0	0.7
14	MN4	0.044	0.001	36.9	0.8
15	LDA2	0.039	0.001	114.0	1.4
16	2MN6	0.037	0.000	55.4	0.7
17	NU2	0.036	0.001	130.0	1.3
18	EPS2	0.035	0.001	169.0	1.6
19	P1	0.031	0.001	99.9	1.1
20	2N2	0.031	0.001	148.0	1.5
21	T2	0.027	0.001	216.0	1.9
22	SSA	0.025	0.005	116.0	10.5
23	MK4	0.024	0.001	122.0	1.5
24	MSN2	0.023	0.001	348.0	2.4
25	2MK6	0.017	0.000	121.0	1.6
26	2SM6	0.015	0.000	163.0	1.8
27	MKS2	0.013	0.001	246.0	4.0
28	Q1	0.013	0.001	305.0	2.6
29	MF	0.012	0.005	212.0	23.6
30	MM	0.012	0.004	160.0	21.4

31	M3	0.012	0.000	178.0	0.9
32	M8	0.012	0.000	133.0	0.6
33	MSM	0.012	0.004	356.0	52.6
34	H1	0.011	0.001	198.0	4.4
35	S1	0.010	0.001	254.0	3.3
36	MK3	0.009	0.000	174.0	1.1
37	MSK6	0.009	0.000	162.0	3.1
38	MSF	0.008	0.004	63.7	28.1
39	ETA2	0.008	0.001	303.0	6.2
40	SN4	0.008	0.001	175.0	4.7
41	S4	0.008	0.001	239.0	4.8
42	H2	0.007	0.001	277.0	7.3
43	SO1	0.006	0.001	285.0	6.1
44	SK3	0.005	0.000	249.0	2.0
45	2MK5	0.005	0.000	190.0	2.0
46	SK4	0.005	0.001	233.0	6.7
47	OO1	0.005	0.001	281.0	7.9
48	TAU1	0.004	0.001	185.0	7.0
49	SIG1	0.004	0.001	344.0	7.9
50	2Q1	0.004	0.001	257.0	8.5
51	J1	0.004	0.001	195.0	8.1
52	OQ2	0.004	0.001	123.0	13.5
53	R2	0.003	0.001	252.0	16.8
54	GAM2	0.003	0.001	173.0	16.3
55	PI1	0.003	0.001	78.7	11.3
56	SO3	0.003	0.000	160.0	3.3
57	ALP1	0.003	0.001	305.0	13.8
58	MO3	0.003	0.000	104.0	3.5
59	RHO1	0.002	0.001	300.0	14.8
60	NO1	0.002	0.001	116.0	17.3
61	PHI1	0.002	0.001	98.7	19.3
62	3MK7	0.001	0.000	175.0	3.7
63	CHI1	0.001	0.001	16.4	36.6
64	UPS1	0.001	0.001	315.0	31.3
65	THE1	0.001	0.001	106.0	41.8
66	BET1	0.000	0.001	304.0	83.6
67	PSI1	0.000	0.001	162.0	90.6
68	2SK5	0.000	0.000	308.0	42.0

Whitby Harbour Tide Predictions

Tide predictions are produced using UTide. Full detail on the tide prediction method and validation is available in Dhoop (2024).

Tide Levels

Datum	Elevation (m OD)	Elevation (m CD)
HAT	3.37	6.37
MHWS	2.60	5.60
MHWN	1.49	4.49
MSL	0.39	3.39
MLWN	-0.70	2.30
MLWS	-1.81	1.19
LAT	-3.04	-0.04

Harmonic Constituents

Constituent #	Name	Amplitude	Amplitude CI	Phase	Phase CI
1	M2	1.650	0.001	104.0	0.0
2	S2	0.553	0.001	147.0	0.1
3	N2	0.323	0.001	80.6	0.1
4	K2	0.159	0.001	146.0	0.2
5	O1	0.142	0.001	88.6	0.3
6	K1	0.127	0.001	252.0	0.3
7	SA	0.075	0.003	304.0	2.8
8	NU2	0.067	0.001	84.2	0.5
9	L2	0.064	0.001	123.0	0.6
10	Q1	0.048	0.001	39.5	1.1
11	2N2	0.040	0.001	59.1	1.0
12	P1	0.039	0.001	240.0	1.2
13	MS4	0.028	0.000	102.0	0.4
14	T2	0.028	0.001	141.0	1.4
15	M4	0.027	0.000	74.6	0.5
16	LDA2	0.025	0.001	107.0	1.6
17	MM	0.019	0.005	189.0	12.2
18	MF	0.015	0.004	206.0	16.2
19	SSA	0.015	0.004	153.0	17.2
20	S1	0.014	0.001	17.2	3.0
21	MN4	0.013	0.000	63.7	1.0
22	MU2	0.013	0.001	65.7	2.9
23	MSF	0.012	0.004	211.0	17.1
24	M3	0.012	0.000	84.9	1.0
25	2MS6	0.012	0.000	57.1	0.9
26	H1	0.011	0.001	113.0	3.1
27	M6	0.011	0.000	359.0	0.9
28	MK3	0.010	0.000	252.0	1.3
29	MO3	0.010	0.000	107.0	1.3
30	RHO1	0.009	0.001	42.5	5.3

31	MSN2	0.009	0.001	335.0	4.3
32	MK4	0.009	0.000	101.0	1.4
33	2Q1	0.009	0.001	354.0	6.1
34	H2	0.008	0.001	321.0	4.5
35	J1	0.007	0.001	331.0	8.7
36	SIG1	0.006	0.001	345.0	7.6
37	S4	0.006	0.000	174.0	1.9
38	SO3	0.006	0.000	166.0	2.0
39	GAM2	0.006	0.001	85.7	6.4
40	M8	0.006	0.000	71.4	0.7
41	R2	0.006	0.001	176.0	6.5
42	OO1	0.006	0.001	37.0	8.1
43	2MN6	0.005	0.000	336.0	1.8
44	ETA2	0.005	0.001	164.0	5.5
45	SN4	0.005	0.000	103.0	2.7
46	SK3	0.005	0.000	321.0	2.8
47	OQ2	0.004	0.001	35.9	8.8
48	TAU1	0.004	0.001	357.0	17.2
49	PI1	0.004	0.001	208.0	13.7
50	SK4	0.004	0.000	171.0	3.5
51	BET1	0.004	0.001	129.0	14.2
52	2MK5	0.003	0.000	327.0	2.4
53	2MK6	0.003	0.000	59.0	3.1
54	MKS2	0.003	0.001	225.0	12.5
55	MSM	0.003	0.003	98.5	72.3
56	THE1	0.003	0.001	270.0	16.7
57	PHI1	0.003	0.001	241.0	19.9
58	NO1	0.003	0.001	218.0	19.6
59	2SM6	0.002	0.000	140.0	4.2
60	ALP1	0.002	0.001	307.0	24.5
61	CHI1	0.002	0.001	168.0	23.5
62	PSI1	0.002	0.001	116.0	34.0
63	SO1	0.002	0.001	111.0	30.7
64	MSK6	0.001	0.000	133.0	8.7
65	UPS1	0.001	0.001	152.0	81.0
66	2SK5	0.001	0.000	254.0	14.5
67	3MK7	0.000	0.000	337.0	9.0
68	EPS2	0.000	0.000	168.0	146.0

Estimated Errors for Tide Predictions

The National Network of Regional Coastal Monitoring Programmes (NNRCMP) evaluates the accuracy of its tide predictions by comparing them with observed water levels at all tide gauges. This comparison involves assessing differences in the height and timing of High and Low Waters in the time series. It is important to note that each tide gauge location is unique, and there is not a single standard for accuracy when comparing astronomical tide predictions against observed water levels.

Discrepancies between predicted and observed tides are often more noticeable during extreme weather events and periods of above-normal river runoff, especially for tide gauges located along tidal rivers such as the instrument deployed over the Severn.

The table below provides a list of all tide gauge locations in the NNRCMP network. The comparisons involve subtracting one year of observations from the predictions for that year and calculating the Root-Mean-Square (RMS) of the differences to estimate average errors. All water level time series observations are recorded at 10-minute intervals.

For an illustration of how to interpret the RMS values, consider Arun Platform as an example. At this tide gauge location, the predicted and observed High Water heights are within 0.166 meters from each other on average. Observed and predicted times of High Water are within 15 minutes from each other on average.

Site	High Water Height (m)	Low Water Height (m)	High Water Time (mins)	Low Water Time (mins)
Arun Platform	0.166	0.153	15	10
Brighton Marina	0.184	0.177	11	12
Deal Pier	0.182	0.172	12	12
Exmouth Marina	0.140	0.207	16	14
Hastings Pier	0.169	0.155	11	11
Herne Bay	0.207	0.192	11	12
Lymington	0.152	0.154	30	22
Penarth	0.226	0.320	10	16
Port Isaac	0.137	0.138	9	10
Sandown Pier	0.148	0.135	17	12
Scarborough	0.184	0.170	13	12
Second Severn Crossing	0.310	0.467	10	20
Swanage Pier	0.136	0.139	26	23
West Bay Harbour	0.152	0.191	16	14
Whitby Harbour	0.151	0.183	11	11

Tide predictions are produced using UTide. Full detail on the tide prediction method and validation is available in Dhoop (2024).