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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	3.15	6.55
MHWN	1.75	5.15
MSL	0.28	3.68
MLWN	-1.18	2.22
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	0.698	0.002	10.7	0.2
3	N2	0.410	0.002	300.0	0.3
4	K2	0.201	0.002	9.6	0.5
5	L2	0.103	0.002	325.0	1.4
6	NU2	0.088	0.002	291.0	1.2
7	K1	0.076	0.001	107.0	0.9
8	M4	0.075	0.001	260.0	0.6
9	SA	0.075	0.007	300.0	6.1
10	MU2	0.064	0.002	21.6	1.9
11	LDA2	0.057	0.002	315.0	2.1
12	2N2	0.056	0.002	277.0	2.3
13	MS4	0.048	0.001	318.0	0.8
14	T2	0.039	0.002	358.0	3.1
15	MSN2	0.035	0.002	197.0	3.5
16	MN4	0.028	0.001	236.0	1.5
17	P1	0.026	0.001	102.0	3.0
18	2MS6	0.026	0.000	196.0	0.8
19	M6	0.024	0.000	154.0	1.0
20	SSA	0.021	0.007	150.0	22.7
21	EPS2	0.019	0.002	27.0	6.7
22	MSF	0.018	0.008	37.2	22.6
23	MK3	0.016	0.000	57.9	1.7
24	MKS2	0.015	0.002	101.0	8.2
25	MK4	0.015	0.001	320.0	2.6
26	H1	0.014	0.002	3.3	10.6
27	TAU1	0.012	0.001	190.0	5.7
28	2MN6	0.012	0.000	127.0	1.7
29	O1	0.011	0.001	333.0	6.3
30	M8	0.011	0.000	23.7	1.4

31	MSM	0.011	0.007	32.6	47.1
32	SO1	0.010	0.001	276.0	7.1
33	S1	0.010	0.001	264.0	7.1
34	MO3	0.010	0.000	286.0	2.5
35	MM	0.008	0.007	32.2	59.8
36	GAM2	0.007	0.002	310.0	19.3
37	R2	0.007	0.002	66.9	18.5
38	SK3	0.007	0.000	113.0	3.3
39	OO1	0.007	0.001	267.0	11.7
40	SIG1	0.007	0.001	348.0	11.9
41	2MK6	0.007	0.000	191.0	2.7
42	2SM6	0.006	0.000	240.0	2.7
43	OQ2	0.006	0.002	248.0	19.4
44	SO3	0.006	0.000	13.6	3.6
45	SN4	0.005	0.001	325.0	7.3
46	ETA2	0.005	0.002	106.0	24.2
47	H2	0.005	0.002	141.0	23.0
48	J1	0.005	0.002	208.0	14.5
49	MF	0.005	0.007	186.0	92.3
50	NO1	0.005	0.001	138.0	14.3
51	M3	0.005	0.000	318.0	4.0
52	S4	0.004	0.001	43.9	8.8
53	MSK6	0.003	0.000	240.0	6.7
54	PHI1	0.003	0.001	80.0	28.1
55	THE1	0.003	0.001	308.0	28.6
56	ALP1	0.003	0.001	23.6	27.9
57	SK4	0.003	0.001	18.8	17.6
58	2MK5	0.002	0.000	341.0	5.7
59	2Q1	0.002	0.001	151.0	44.2
60	PSI1	0.002	0.001	214.0	46.2
61	CHI1	0.002	0.001	328.0	45.2
62	PI1	0.002	0.001	118.0	54.2
63	Q1	0.001	0.001	162.0	68.2
64	UPS1	0.001	0.001	253.0	55.8
65	RHO1	0.001	0.001	170.0	52.1
66	2SK5	0.001	0.000	288.0	10.6
67	3MK7	0.001	0.000	187.0	12.8
68	BET1	0.000	0.001	286.0	240.0

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	2.80	6.20
MHWN	1.54	4.94
MSL	0.12	3.52
MLWN	-1.30	2.10
MLWS	-2.56	0.84
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	0.632	0.001	28.2	0.1
3	N2	0.368	0.001	313.0	0.2
4	M4	0.201	0.001	227.0	0.2
5	K2	0.182	0.001	26.5	0.4
6	MS4	0.124	0.001	279.0	0.3
7	L2	0.112	0.001	344.0	0.6
8	NU2	0.093	0.001	305.0	0.8
9	MU2	0.084	0.001	61.2	0.8
10	O1	0.076	0.001	179.0	0.7
11	MN4	0.072	0.001	203.0	0.6
12	SA	0.071	0.003	281.0	2.8
13	K1	0.060	0.001	22.1	0.9
14	LDA2	0.055	0.001	336.0	1.1
15	M6	0.054	0.000	112.0	0.5
16	2MS6	0.049	0.000	161.0	0.5
17	2N2	0.042	0.001	289.0	1.8
18	MK4	0.036	0.001	279.0	1.3
19	T2	0.033	0.001	12.4	2.4
20	2MN6	0.028	0.000	89.1	1.0
21	MSN2	0.028	0.001	209.0	2.8
22	Q1	0.027	0.001	119.0	1.9
23	EPS2	0.023	0.001	48.6	3.5
24	H1	0.022	0.001	30.6	2.7
25	P1	0.022	0.001	2.4	2.3
26	SSA	0.019	0.004	122.0	10.1
27	M8	0.018	0.000	34.4	0.7
28	2MK6	0.014	0.000	164.0	2.0
29	MM	0.013	0.003	177.0	14.4
30	S4	0.013	0.001	349.0	4.0

31	2SM6	0.011	0.000	222.0	2.4
32	SN4	0.011	0.001	287.0	4.3
33	MKS2	0.011	0.001	115.0	5.4
34	MF	0.011	0.003	184.0	18.7
35	H2	0.011	0.001	174.0	6.6
36	S1	0.010	0.001	129.0	4.7
37	2MK5	0.010	0.000	5.2	1.9
38	M3	0.010	0.000	43.7	1.3
39	GAM2	0.009	0.001	327.0	7.5
40	MK3	0.008	0.000	338.0	1.8
41	MO3	0.008	0.000	78.8	1.9
42	SK4	0.007	0.001	345.0	5.4
43	MSK6	0.006	0.000	222.0	3.8
44	RHO1	0.006	0.001	123.0	8.3
45	R2	0.006	0.001	67.9	12.0
46	SO1	0.006	0.001	218.0	7.5
47	MSM	0.005	0.003	48.5	37.4
48	MSF	0.005	0.003	242.0	34.5
49	2Q1	0.005	0.001	86.6	9.9
50	SIG1	0.004	0.001	337.0	10.9
51	NO1	0.004	0.001	185.0	11.6
52	OQ2	0.004	0.001	243.0	17.6
53	3MK7	0.004	0.000	266.0	2.1
54	J1	0.004	0.001	159.0	12.1
55	SK3	0.004	0.000	58.7	4.1
56	ETA2	0.003	0.001	110.0	20.7
57	OO1	0.003	0.001	189.0	17.0
58	TAU1	0.003	0.001	131.0	17.6
59	PHI1	0.003	0.001	354.0	24.6
60	THE1	0.002	0.001	1.9	95.3
61	SO3	0.002	0.000	112.0	6.7
62	ALP1	0.002	0.001	121.0	27.1
63	UPS1	0.001	0.001	217.0	41.0
64	PSI1	0.001	0.001	241.0	47.5
65	CHI1	0.001	0.001	211.0	49.1
66	BET1	0.001	0.001	214.0	51.7
67	PI1	0.001	0.001	9.5	204.0
68	2SK5	0.000	0.000	92.9	47.3

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	1.93	3.76
MHWN	1.00	2.83
MSL	0.29	2.12
MLWN	-0.41	1.42
MLWS	-1.35	0.48
LAT	-1.91	-0.08

Harmonic Constituents

Constituent #	Name	Amplitude	Amplitude CI	Phase	Phase CI
1	M2	1.170	0.002	179.0	0.1
2	S2	0.470	0.002	239.0	0.2
3	N2	0.220	0.002	170.0	0.6
4	MU2	0.154	0.002	220.0	0.8
5	K2	0.135	0.002	236.0	0.9
6	M4	0.086	0.001	86.9	0.7
7	K1	0.084	0.001	120.0	0.5
8	L2	0.082	0.002	146.0	1.4
9	SA	0.060	0.007	309.0	6.3
10	MSF	0.055	0.006	43.8	6.3
11	LDA2	0.053	0.002	137.0	2.3
12	O1	0.053	0.001	357.0	1.0
13	MS4	0.045	0.001	151.0	1.4
14	M6	0.044	0.001	159.0	1.3
15	2MS6	0.042	0.001	214.0	1.6
16	NU2	0.040	0.002	130.0	3.1
17	EPS2	0.039	0.002	209.0	3.0
18	MSN2	0.035	0.002	16.5	3.6
19	P1	0.031	0.001	110.0	1.4
20	MN4	0.028	0.001	57.1	2.0
21	T2	0.027	0.002	226.0	4.2
22	2N2	0.024	0.002	155.0	5.1
23	2MN6	0.020	0.001	138.0	3.2
24	MKS2	0.019	0.002	284.0	6.5
25	MM	0.019	0.006	31.2	19.8
26	MSM	0.017	0.007	34.7	24.3
27	SSA	0.015	0.006	120.0	24.2
28	Q1	0.014	0.001	304.0	2.8
29	H1	0.013	0.002	200.0	8.2
30	MK4	0.012	0.001	156.0	5.0

31	2SM6	0.011	0.001	324.0	5.3
32	MK3	0.011	0.000	199.0	1.5
33	2MK6	0.010	0.001	225.0	6.6
34	ETA2	0.010	0.002	329.0	12.2
35	M3	0.009	0.000	193.0	1.8
36	M8	0.009	0.000	178.0	1.9
37	S1	0.008	0.001	268.0	5.1
38	GAM2	0.008	0.002	197.0	13.6
39	SO1	0.008	0.001	296.0	5.9
40	S4	0.007	0.001	354.0	7.0
41	MSK6	0.007	0.001	317.0	8.6
42	H2	0.007	0.002	341.0	14.8
43	R2	0.007	0.002	285.0	17.9
44	SN4	0.007	0.001	279.0	9.9
45	2MK5	0.006	0.000	192.0	2.0
46	OO1	0.006	0.001	276.0	6.9
47	TAU1	0.006	0.001	204.0	6.4
48	SK3	0.005	0.000	268.0	3.0
49	SK4	0.005	0.001	349.0	10.6
50	MO3	0.005	0.000	84.2	3.5
51	SIG1	0.004	0.001	14.2	11.0
52	PHI1	0.003	0.001	91.0	14.2
53	SO3	0.003	0.000	156.0	4.6
54	J1	0.003	0.001	208.0	14.3
55	MF	0.003	0.005	7.9	304.0
56	2Q1	0.003	0.001	219.0	19.3
57	RHO1	0.003	0.001	283.0	15.1
58	OQ2	0.003	0.002	87.1	45.2
59	ALP1	0.002	0.001	357.0	29.1
60	PSI1	0.002	0.001	175.0	18.0
61	3MK7	0.002	0.000	249.0	4.5
62	NO1	0.002	0.001	74.4	23.3
63	PI1	0.001	0.001	71.5	26.2
64	CHI1	0.001	0.001	20.1	58.5
65	THE1	0.001	0.001	127.0	55.3
66	BET1	0.001	0.001	271.0	60.9
67	2SK5	0.001	0.000	291.0	24.8
68	UPS1	0.000	0.001	234.0	129.0

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	3.58	7.38
MHWN	1.90	5.70
MSL	0.16	3.96
MLWN	-1.58	2.22
MLWS	-3.26	0.54
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	0.838	0.002	15.4	0.1
3	N2	0.480	0.002	303.0	0.3
4	K2	0.241	0.003	13.8	0.5
5	M4	0.237	0.002	223.0	0.4
6	MS4	0.153	0.002	278.0	0.6
7	L2	0.125	0.002	326.0	1.3
8	NU2	0.108	0.002	294.0	1.1
9	MU2	0.091	0.002	27.2	1.5
10	MN4	0.083	0.002	201.0	1.2
11	SA	0.076	0.006	299.0	5.3
12	LDA2	0.067	0.002	316.0	1.9
13	2N2	0.064	0.002	277.0	2.2
14	K1	0.061	0.001	94.3	1.0
15	T2	0.046	0.002	2.0	2.8
16	MK4	0.044	0.002	278.0	2.2
17	MSN2	0.041	0.002	194.0	3.5
18	M6	0.038	0.001	116.0	0.8
19	2MS6	0.036	0.000	161.0	0.7
20	EPS2	0.024	0.002	23.9	5.7
21	P1	0.021	0.001	86.4	3.6
22	2MN6	0.020	0.000	93.0	1.4
23	H1	0.019	0.002	1.2	12.5
24	M8	0.018	0.000	8.7	1.3
25	MK3	0.017	0.000	25.1	1.5
26	MKS2	0.017	0.002	104.0	8.5
27	SSA	0.017	0.006	134.0	23.8
28	S4	0.014	0.002	355.0	6.3
29	SN4	0.014	0.001	284.0	7.0
30	O1	0.013	0.001	201.0	5.6

31	TAU1	0.012	0.001	186.0	5.6
32	MSM	0.011	0.007	66.0	37.2
33	MSF	0.010	0.007	49.7	36.0
34	SO1	0.009	0.001	266.0	7.2
35	2MK6	0.009	0.000	161.0	2.5
36	OQ2	0.009	0.002	248.0	15.9
37	SK4	0.008	0.002	348.0	10.5
38	SK3	0.008	0.000	83.0	3.3
39	R2	0.008	0.002	61.4	18.4
40	2SM6	0.008	0.001	209.0	2.9
41	M3	0.008	0.000	1.9	3.2
42	MF	0.008	0.006	155.0	51.6
43	GAM2	0.007	0.002	333.0	19.6
44	Q1	0.007	0.001	120.0	9.6
45	H2	0.007	0.002	120.0	20.7
46	SIG1	0.007	0.001	348.0	11.3
47	S1	0.007	0.001	222.0	11.2
48	ETA2	0.006	0.003	106.0	23.5
49	MO3	0.006	0.000	261.0	4.5
50	OO1	0.006	0.001	264.0	12.9
51	NO1	0.005	0.001	145.0	13.2
52	MM	0.005	0.006	145.0	92.1
53	J1	0.004	0.001	192.0	16.9
54	MSK6	0.004	0.000	205.0	5.9
55	SO3	0.004	0.000	20.7	5.7
56	2MK5	0.003	0.000	266.0	5.1
57	PHI1	0.003	0.001	88.2	31.7
58	ALP1	0.002	0.001	9.1	38.4
59	PSI1	0.002	0.001	249.0	43.4
60	RHO1	0.002	0.001	133.0	37.3
61	2Q1	0.002	0.001	126.0	42.4
62	CHI1	0.002	0.001	335.0	46.9
63	THE1	0.001	0.001	301.0	58.2
64	BET1	0.001	0.001	108.0	81.3
65	UPS1	0.001	0.001	235.0	96.7
66	2SK5	0.001	0.000	178.0	25.6
67	PI1	0.000	0.001	124.0	133.0
68	3MK7	0.000	0.000	106.0	22.4

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	2.51	5.23
MHWN	1.48	4.20
MSL	0.18	2.90
MLWN	-1.11	1.61
MLWS	-2.14	0.58
LAT	-2.73	-0.01

Harmonic Constituents

Constituent #	Name	Amplitude	Amplitude CI	Phase	Phase CI
1	M2	1.810	0.002	349.0	0.0
2	S2	0.517	0.002	44.3	0.1
3	N2	0.306	0.001	325.0	0.3
4	K2	0.151	0.001	43.3	0.5
5	O1	0.127	0.001	188.0	0.4
6	L2	0.116	0.001	2.6	0.7
7	MU2	0.110	0.002	92.0	0.7
8	K1	0.108	0.001	8.6	0.4
9	NU2	0.091	0.001	319.0	0.9
10	M4	0.067	0.001	333.0	0.5
11	SA	0.057	0.003	273.0	3.0
12	LDA2	0.052	0.001	353.0	1.6
13	MO3	0.041	0.000	107.0	0.7
14	Q1	0.040	0.001	129.0	1.1
15	P1	0.039	0.001	349.0	1.1
16	H1	0.034	0.002	51.0	2.4
17	MK3	0.034	0.000	284.0	0.7
18	2N2	0.033	0.002	298.0	2.3
19	M6	0.032	0.000	10.9	0.5
20	2MS6	0.031	0.000	61.6	0.5
21	EPS2	0.027	0.001	73.5	3.0
22	MSN2	0.026	0.001	236.0	3.0
23	T2	0.025	0.001	27.4	3.4
24	MN4	0.024	0.001	297.0	1.5
25	MS4	0.024	0.001	32.2	1.3
26	2MN6	0.017	0.000	344.0	0.8
27	H2	0.017	0.001	254.0	4.6
28	SO3	0.015	0.000	188.0	1.5
29	MSF	0.015	0.003	54.7	12.6
30	M3	0.013	0.000	86.8	1.7

31	S1	0.012	0.001	154.0	3.7
32	GAM2	0.011	0.001	307.0	6.8
33	SSA	0.010	0.003	89.8	15.9
34	SK3	0.010	0.000	342.0	2.3
35	RHO1	0.009	0.001	135.0	5.4
36	2MK6	0.008	0.000	58.0	1.9
37	2MK5	0.007	0.000	122.0	1.3
38	MSM	0.007	0.003	145.0	28.9
39	MM	0.007	0.003	125.0	22.9
40	2SM6	0.006	0.000	127.0	2.3
41	2Q1	0.006	0.001	97.3	7.3
42	MK4	0.006	0.000	29.3	4.9
43	J1	0.006	0.001	116.0	6.9
44	MKS2	0.005	0.001	135.0	14.1
45	SO1	0.005	0.001	173.0	9.0
46	OO1	0.005	0.001	154.0	10.0
47	SIG1	0.004	0.001	308.0	10.7
48	M8	0.004	0.000	206.0	1.0
49	S4	0.004	0.001	356.0	8.1
50	R2	0.004	0.001	114.0	21.8
51	MSK6	0.004	0.000	127.0	4.0
52	PHI1	0.003	0.001	350.0	14.5
53	3MK7	0.003	0.000	333.0	1.8
54	OQ2	0.003	0.001	256.0	29.6
55	MF	0.003	0.003	141.0	63.1
56	SN4	0.003	0.001	272.0	10.9
57	NO1	0.003	0.001	193.0	18.1
58	TAU1	0.002	0.001	94.3	17.6
59	BET1	0.002	0.001	172.0	20.0
60	ALP1	0.002	0.001	159.0	19.0
61	SK4	0.002	0.001	357.0	30.1
62	CHI1	0.002	0.001	257.0	28.5
63	UPS1	0.002	0.001	224.0	30.4
64	ETA2	0.002	0.002	153.0	50.5
65	PSI1	0.002	0.001	238.0	25.5
66	THE1	0.002	0.001	13.2	27.0
67	PI1	0.000	0.001	333.0	141.0
68	2SK5	0.000	0.000	182.0	79.1

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	0.15	2.13
MLWN	-0.43	1.55
MLWS	-0.92	1.06
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	0.187	0.001	20.4	0.3
4	N2	0.174	0.000	292.0	0.1
5	MS4	0.123	0.001	79.6	0.4
6	M6	0.093	0.001	129.0	0.5
7	2MS6	0.092	0.001	177.0	0.5
8	K1	0.089	0.001	114.0	0.6
9	K2	0.069	0.000	354.0	0.3
10	MN4	0.068	0.001	358.0	0.7
11	SA	0.061	0.004	290.0	4.0
12	2MN6	0.051	0.001	104.0	0.9
13	MK4	0.037	0.001	81.5	1.4
14	NU2	0.035	0.000	300.0	0.7
15	O1	0.033	0.001	351.0	1.1
16	P1	0.031	0.001	106.0	1.4
17	L2	0.031	0.000	351.0	0.7
18	MU2	0.028	0.000	200.0	0.9
19	2MK6	0.027	0.001	179.0	1.7
20	2N2	0.024	0.000	267.0	1.0
21	SSA	0.020	0.004	149.0	13.7
22	2SM6	0.019	0.001	236.0	2.4
23	LDA2	0.017	0.000	352.0	1.4
24	T2	0.016	0.000	349.0	1.6
25	SN4	0.015	0.001	101.0	3.4
26	M8	0.013	0.000	122.0	0.7
27	MSM	0.013	0.004	10.0	22.2
28	S4	0.013	0.001	171.0	4.1
29	MF	0.012	0.004	199.0	18.9
30	MSK6	0.012	0.001	234.0	4.1

31	MK3	0.011	0.000	120.0	1.2
32	MM	0.011	0.004	187.0	24.3
33	MSN2	0.011	0.000	235.0	2.3
34	S1	0.010	0.001	256.0	3.9
35	SO1	0.010	0.001	282.0	5.0
36	TAU1	0.009	0.001	183.0	4.5
37	EPS2	0.008	0.000	152.0	3.2
38	SK4	0.008	0.001	169.0	6.0
39	OO1	0.006	0.001	274.0	7.1
40	H2	0.006	0.000	34.0	4.3
41	J1	0.006	0.001	215.0	7.9
42	MO3	0.006	0.000	295.0	2.4
43	Q1	0.006	0.001	315.0	7.2
44	SIG1	0.005	0.001	358.0	10.2
45	M3	0.005	0.000	194.0	2.1
46	SK3	0.004	0.000	197.0	3.2
47	NO1	0.003	0.001	157.0	14.2
48	OQ2	0.003	0.000	239.0	9.2
49	PI1	0.003	0.001	84.7	16.8
50	MKS2	0.002	0.000	192.0	10.6
51	H1	0.002	0.000	172.0	10.3
52	PHI1	0.002	0.001	88.2	18.2
53	GAM2	0.002	0.000	300.0	11.1
54	MSF	0.002	0.003	299.0	105.0
55	SO3	0.002	0.000	24.0	5.9
56	2MK5	0.002	0.000	134.0	4.5
57	CHI1	0.002	0.001	20.1	20.3
58	ETA2	0.002	0.000	316.0	14.8
59	BET1	0.002	0.001	357.0	37.8
60	ALP1	0.002	0.001	337.0	29.2
61	R2	0.001	0.000	355.0	28.6
62	2Q1	0.001	0.001	256.0	40.1
63	RHO1	0.001	0.001	227.0	44.9
64	PSI1	0.001	0.001	196.0	33.9
65	UPS1	0.000	0.001	329.0	107.0
66	THE1	0.000	0.001	32.5	109.0
67	2SK5	0.000	0.000	50.6	29.5
68	3MK7	0.000	0.000	47.9	25.0

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	6.49	12.79
MHWN	3.61	9.91
MSL	1.03	7.33
MLWN	-1.56	4.74
MLWS	-4.44	1.86
LAT	-6.47	-0.17

Harmonic Constituents

Constituent #	Name	Amplitude	Amplitude CI	Phase	Phase CI
1	M2	3.990	0.009	190.0	0.1
2	S2	1.420	0.008	246.0	0.3
3	N2	0.706	0.008	177.0	0.6
4	K2	0.434	0.008	245.0	1.0
5	MU2	0.364	0.008	245.0	1.1
6	L2	0.233	0.008	178.0	1.9
7	NU2	0.172	0.007	148.0	2.4
8	M4	0.139	0.003	20.9	0.9
9	LDA2	0.133	0.008	167.0	3.3
10	2N2	0.121	0.007	133.0	2.9
11	T2	0.085	0.006	237.0	5.1
12	MSN2	0.085	0.007	37.0	4.6
13	O1	0.078	0.002	356.0	1.3
14	K1	0.069	0.002	135.0	1.5
15	MN4	0.068	0.002	351.0	1.8
16	EPS2	0.067	0.008	231.0	6.2
17	MS4	0.066	0.003	34.5	2.0
18	2MS6	0.065	0.001	286.0	1.1
19	SA	0.059	0.014	330.0	12.9
20	M6	0.052	0.002	246.0	1.5
21	M3	0.050	0.001	192.0	1.6
22	MSF	0.050	0.016	60.8	14.6
23	MM	0.044	0.014	122.0	17.1
24	H1	0.042	0.006	210.0	11.3
25	H2	0.037	0.008	268.0	11.8
26	NO1	0.035	0.002	306.0	2.9
27	MKS2	0.030	0.008	321.0	14.3
28	OQ2	0.028	0.008	101.0	13.9
29	P1	0.028	0.002	125.0	4.0
30	2SM6	0.026	0.001	319.0	3.3

31	MF	0.024	0.015	185.0	36.9
32	SN4	0.022	0.003	12.5	5.3
33	Q1	0.022	0.002	302.0	4.4
34	ETA2	0.020	0.008	347.0	23.3
35	SK3	0.020	0.002	291.0	4.3
36	MK4	0.020	0.002	24.2	6.6
37	2MN6	0.019	0.001	225.0	4.1
38	2MK6	0.019	0.001	291.0	4.1
39	SSA	0.019	0.014	296.0	37.3
40	S1	0.018	0.002	295.0	5.4
41	MO3	0.017	0.002	156.0	4.3
42	MSK6	0.017	0.002	336.0	4.7
43	MSM	0.015	0.014	334.0	60.5
44	GAM2	0.013	0.007	327.0	35.2
45	R2	0.010	0.007	266.0	46.2
46	SK4	0.010	0.002	42.0	15.8
47	OO1	0.009	0.002	282.0	10.7
48	RHO1	0.008	0.002	6.7	12.9
49	BET1	0.006	0.002	313.0	17.0
50	2Q1	0.006	0.002	283.0	14.9
51	S4	0.006	0.002	77.7	22.5
52	MK3	0.006	0.002	202.0	16.9
53	CHI1	0.005	0.002	308.0	19.1
54	J1	0.004	0.002	179.0	22.7
55	THE1	0.004	0.002	269.0	23.0
56	SIG1	0.004	0.002	183.0	25.2
57	SO3	0.004	0.001	123.0	17.7
58	TAU1	0.004	0.002	271.0	25.9
59	UPS1	0.003	0.002	56.9	31.3
60	2MK5	0.003	0.001	114.0	10.7
61	PI1	0.003	0.002	95.7	32.2
62	ALP1	0.003	0.002	89.4	33.1
63	PHI1	0.002	0.002	134.0	51.9
64	M8	0.002	0.000	327.0	8.6
65	SO1	0.002	0.002	72.2	59.8
66	3MK7	0.001	0.000	117.0	14.0
67	PSI1	0.001	0.002	326.0	146.0
68	2SK5	0.001	0.001	226.0	54.5

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	3.71	7.51
MHWN	1.95	5.75
MSL	0.37	4.17
MLWN	-1.21	2.59
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	0.882	0.001	191.0	0.1
3	N2	0.475	0.001	128.0	0.1
4	K2	0.254	0.001	190.0	0.3
5	NU2	0.099	0.001	120.0	0.5
6	L2	0.097	0.001	144.0	0.6
7	MU2	0.087	0.001	169.0	0.6
8	SA	0.070	0.005	292.0	4.2
9	K1	0.063	0.001	117.0	0.4
10	O1	0.063	0.000	346.0	0.4
11	2N2	0.062	0.001	108.0	0.9
12	M4	0.060	0.000	251.0	0.3
13	T2	0.049	0.001	186.0	1.2
14	LDA2	0.042	0.001	128.0	1.4
15	SSA	0.027	0.005	122.0	11.4
16	MN4	0.024	0.000	214.0	0.8
17	MS4	0.024	0.000	307.0	0.7
18	P1	0.021	0.000	109.0	1.3
19	M3	0.021	0.000	84.9	0.7
20	EPS2	0.021	0.001	148.0	2.8
21	MSN2	0.020	0.001	2.6	2.4
22	Q1	0.020	0.000	289.0	1.5
23	H2	0.016	0.001	247.0	3.2
24	H1	0.014	0.001	144.0	4.4
25	MF	0.012	0.005	221.0	26.0
26	ETA2	0.010	0.001	241.0	5.6
27	MSM	0.010	0.005	9.3	56.2
28	S1	0.009	0.000	249.0	2.8
29	MM	0.009	0.005	175.0	28.6
30	M6	0.009	0.000	95.0	0.8

31	GAM2	0.008	0.001	147.0	7.6
32	R2	0.007	0.001	207.0	8.2
33	SK3	0.007	0.000	197.0	1.8
34	2MS6	0.007	0.000	111.0	1.4
35	MKS2	0.007	0.001	250.0	7.5
36	OQ2	0.007	0.001	76.7	7.6
37	MK4	0.007	0.000	306.0	2.4
38	2MN6	0.006	0.000	72.2	1.4
39	2Q1	0.004	0.001	243.0	7.3
40	RHO1	0.004	0.000	286.0	6.3
41	NO1	0.004	0.000	41.6	7.9
42	SO1	0.003	0.001	20.8	7.4
43	S4	0.003	0.000	290.0	4.9
44	2SM6	0.003	0.000	117.0	3.8
45	MK3	0.002	0.000	38.9	7.0
46	MO3	0.002	0.000	115.0	6.3
47	MSF	0.002	0.004	31.8	171.0
48	PSI1	0.002	0.001	103.0	15.5
49	SN4	0.002	0.000	250.0	8.8
50	PI1	0.002	0.000	65.1	14.4
51	M8	0.002	0.000	129.0	2.0
52	2MK6	0.002	0.000	110.0	4.4
53	SK4	0.002	0.000	284.0	7.5
54	PHI1	0.002	0.001	88.2	17.7
55	MSK6	0.002	0.000	116.0	5.9
56	BET1	0.001	0.000	332.0	21.9
57	TAU1	0.001	0.000	273.0	21.6
58	ALP1	0.001	0.000	282.0	24.9
59	SO3	0.001	0.000	124.0	15.2
60	3MK7	0.001	0.000	234.0	5.2
61	2MK5	0.001	0.000	250.0	6.7
62	OO1	0.001	0.000	292.0	36.7
63	THE1	0.001	0.000	167.0	45.5
64	SIG1	0.001	0.000	231.0	38.6
65	UPS1	0.001	0.000	10.6	81.9
66	CHI1	0.000	0.000	24.6	67.4
67	J1	0.000	0.000	94.0	98.4
68	2SK5	0.000	0.000	162.0	23.1

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	0.31	2.75
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	0.157	0.001	357.0	0.2
5	K2	0.110	0.001	1.8	0.3
6	MS4	0.101	0.001	51.7	0.4
7	K1	0.087	0.001	111.0	0.4
8	SA	0.065	0.004	288.0	3.7
9	MN4	0.057	0.001	333.0	0.6
10	L2	0.054	0.001	334.0	0.7
11	NU2	0.052	0.001	294.0	0.5
12	2MS6	0.045	0.000	157.0	0.4
13	M6	0.042	0.000	112.0	0.5
14	2N2	0.032	0.001	269.0	1.1
15	P1	0.030	0.001	103.0	1.4
16	MK4	0.030	0.001	52.1	1.4
17	O1	0.028	0.001	347.0	1.3
18	LDA2	0.027	0.001	331.0	1.1
19	T2	0.023	0.001	352.0	1.3
20	2MN6	0.022	0.000	87.4	0.9
21	SSA	0.022	0.004	143.0	10.9
22	MSN2	0.016	0.001	212.0	1.9
23	2MK6	0.013	0.000	157.0	1.2
24	MK3	0.012	0.000	95.7	1.0
25	2SM6	0.012	0.000	210.0	1.4
26	MM	0.011	0.003	177.0	19.7
27	SN4	0.010	0.001	65.3	3.8
28	SO1	0.010	0.001	277.0	3.9
29	MF	0.010	0.004	185.0	23.1
30	TAU1	0.009	0.001	178.0	4.3

31	MSM	0.009	0.004	0.7	69.2
32	S4	0.008	0.001	131.0	4.5
33	S1	0.007	0.001	257.0	5.3
34	M8	0.007	0.000	344.0	1.0
35	MSK6	0.007	0.000	206.0	2.6
36	MO3	0.007	0.000	293.0	1.8
37	J1	0.006	0.001	210.0	6.5
38	MSF	0.006	0.004	14.5	44.5
39	SIG1	0.006	0.001	352.0	7.2
40	EPS2	0.006	0.001	93.2	5.7
41	H1	0.005	0.001	343.0	6.5
42	MKS2	0.005	0.001	123.0	6.3
43	SK4	0.005	0.001	125.0	6.5
44	OO1	0.005	0.001	263.0	8.5
45	GAM2	0.005	0.000	323.0	7.5
46	SK3	0.005	0.000	164.0	2.4
47	Q1	0.004	0.001	325.0	9.9
48	OQ2	0.004	0.000	238.0	8.5
49	NO1	0.004	0.001	166.0	10.1
50	MU2	0.004	0.001	24.5	8.5
51	H2	0.003	0.001	69.7	9.5
52	SO3	0.003	0.000	16.4	3.1
53	2MK5	0.003	0.000	66.8	2.2
54	PI1	0.003	0.001	82.9	14.0
55	R2	0.003	0.001	47.3	12.7
56	M3	0.002	0.000	205.0	4.4
57	PHI1	0.002	0.001	80.7	20.5
58	BET1	0.002	0.001	353.0	40.5
59	ETA2	0.001	0.001	20.3	30.6
60	CHI1	0.001	0.001	22.3	36.9
61	2Q1	0.001	0.001	223.0	35.2
62	ALP1	0.001	0.001	328.0	34.4
63	PSI1	0.001	0.001	185.0	38.8
64	RHO1	0.001	0.001	241.0	38.0
65	THE1	0.001	0.001	35.7	41.3
66	UPS1	0.001	0.001	316.0	59.2
67	2SK5	0.000	0.000	15.8	18.2
68	3MK7	0.000	0.000	273.0	13.1

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	2.58	5.83
MHWN	1.43	4.68
MSL	0.30	3.55
MLWN	-0.83	2.42
MLWS	-1.98	1.27
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	0.575	0.000	156.0	0.1
3	N2	0.333	0.001	89.2	0.1
4	K2	0.164	0.001	155.0	0.2
5	O1	0.146	0.001	92.7	0.3
6	K1	0.130	0.001	256.0	0.4
7	SA	0.078	0.003	291.0	2.3
8	NU2	0.069	0.000	91.8	0.4
9	L2	0.062	0.000	131.0	0.5
10	Q1	0.049	0.001	39.0	0.8
11	2N2	0.044	0.001	64.6	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	91.1	0.3
15	T2	0.028	0.000	146.0	1.0
16	LDA2	0.026	0.001	120.0	1.2
17	SSA	0.017	0.003	147.0	11.4
18	MU2	0.015	0.001	76.0	1.8
19	S1	0.015	0.001	29.5	3.0
20	MN4	0.014	0.000	80.8	0.7
21	M3	0.014	0.000	103.0	0.9
22	MM	0.014	0.003	192.0	14.7
23	H1	0.012	0.001	124.0	2.7
24	MK3	0.012	0.000	282.0	0.9
25	MSN2	0.011	0.000	349.0	2.7
26	H2	0.011	0.001	341.0	2.5
27	MF	0.010	0.003	185.0	17.5
28	MO3	0.010	0.000	129.0	1.3
29	MK4	0.010	0.000	125.0	1.0
30	RHO1	0.009	0.001	43.9	4.7

31	2MS6	0.009	0.000	22.2	0.8
32	M6	0.008	0.000	314.0	0.8
33	2Q1	0.008	0.001	354.0	5.5
34	M8	0.008	0.000	74.9	0.6
35	S4	0.007	0.000	199.0	1.2
36	J1	0.007	0.001	326.0	6.4
37	SO3	0.006	0.000	189.0	1.7
38	ETA2	0.006	0.000	179.0	4.9
39	GAM2	0.006	0.001	113.0	5.1
40	SN4	0.006	0.000	133.0	1.6
41	R2	0.006	0.001	200.0	4.5
42	MSM	0.005	0.004	35.2	34.5
43	OQ2	0.005	0.000	34.3	6.3
44	SK3	0.005	0.000	350.0	2.1
45	TAU1	0.005	0.001	6.3	10.9
46	OO1	0.005	0.001	42.3	8.7
47	2MK5	0.004	0.000	318.0	1.3
48	SIG1	0.004	0.001	337.0	11.0
49	SK4	0.004	0.000	199.0	2.7
50	NO1	0.004	0.001	181.0	12.2
51	2MN6	0.004	0.000	273.0	2.0
52	BET1	0.003	0.001	110.0	15.1
53	MKS2	0.003	0.000	228.0	8.0
54	PHI1	0.003	0.001	263.0	12.4
55	MSF	0.003	0.003	293.0	56.1
56	PI1	0.003	0.001	218.0	12.5
57	PSI1	0.003	0.001	124.0	16.7
58	ALP1	0.003	0.001	342.0	16.4
59	CHI1	0.002	0.001	122.0	20.1
60	2MK6	0.002	0.000	23.9	3.7
61	SO1	0.002	0.001	111.0	25.1
62	UPS1	0.001	0.001	117.0	31.4
63	THE1	0.001	0.001	292.0	31.8
64	2SM6	0.001	0.000	110.0	8.7
65	2SK5	0.001	0.000	336.0	9.8
66	3MK7	0.001	0.000	15.9	5.7
67	MSK6	0.001	0.000	101.0	15.1
68	EPS2	0.000	0.000	69.3	89.6

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	6.20	12.70
MHWN	3.16	9.66
MSL	0.37	6.87
MLWN	-2.42	4.08
MLWS	-5.45	1.05
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	0.770	0.005	191.0	0.4
4	MU2	0.519	0.005	263.0	0.5
5	K2	0.443	0.006	263.0	0.5
6	M4	0.300	0.003	357.0	0.5
7	L2	0.283	0.006	186.0	1.2
8	MS4	0.273	0.002	32.5	0.5
9	NU2	0.200	0.006	154.0	1.5
10	LDA2	0.166	0.006	183.0	1.8
11	2MS6	0.156	0.003	334.0	0.8
12	M6	0.133	0.002	274.0	0.8
13	MN4	0.132	0.002	341.0	1.2
14	EPS2	0.118	0.006	251.0	2.8
15	MSF	0.094	0.007	47.7	3.8
16	MSN2	0.093	0.005	60.6	3.1
17	2N2	0.092	0.005	167.0	3.2
18	T2	0.086	0.006	253.0	3.4
19	MK4	0.080	0.002	31.4	1.9
20	SA	0.075	0.007	299.0	5.6
21	O1	0.074	0.001	6.4	0.9
22	K1	0.071	0.001	139.0	0.9
23	SN4	0.069	0.003	40.4	1.5
24	S4	0.067	0.002	110.0	2.1
25	2MN6	0.065	0.002	248.0	1.9
26	MKS2	0.056	0.005	337.0	5.4
27	H1	0.056	0.006	246.0	5.1
28	S1	0.052	0.001	264.0	1.1
29	M3	0.048	0.001	221.0	1.0
30	SK4	0.039	0.003	103.0	2.8

31	2SM6	0.036	0.003	72.1	3.9
32	2MK6	0.036	0.002	342.0	3.6
33	H2	0.031	0.006	248.0	9.3
34	M8	0.027	0.001	74.0	1.2
35	P1	0.027	0.001	123.0	2.6
36	ETA2	0.026	0.005	355.0	12.7
37	SK3	0.026	0.001	328.0	2.0
38	Q1	0.024	0.001	311.0	3.0
39	MSK6	0.023	0.003	65.2	6.3
40	MK3	0.021	0.001	234.0	2.8
41	GAM2	0.020	0.006	233.0	17.7
42	SSA	0.019	0.006	185.0	21.4
43	MM	0.018	0.006	50.8	23.6
44	MSM	0.017	0.007	34.8	27.5
45	MO3	0.014	0.001	142.0	3.5
46	MF	0.012	0.007	57.1	32.8
47	R2	0.011	0.005	318.0	27.6
48	NO1	0.010	0.001	104.0	6.6
49	SO3	0.010	0.001	207.0	4.6
50	OQ2	0.010	0.004	117.0	22.6
51	RHO1	0.009	0.001	299.0	7.9
52	SIG1	0.007	0.001	153.0	10.9
53	SO1	0.005	0.001	55.0	13.3
54	2Q1	0.005	0.002	281.0	16.5
55	PSI1	0.005	0.001	107.0	18.3
56	TAU1	0.004	0.001	230.0	16.8
57	BET1	0.004	0.001	352.0	26.1
58	PHI1	0.003	0.001	96.5	21.4
59	3MK7	0.003	0.000	253.0	5.9
60	2MK5	0.003	0.000	146.0	9.9
61	THE1	0.003	0.001	165.0	28.7
62	PI1	0.003	0.001	84.2	27.4
63	2SK5	0.003	0.001	157.0	10.7
64	CHI1	0.003	0.001	140.0	26.5
65	UPS1	0.002	0.001	208.0	41.4
66	ALP1	0.001	0.001	53.9	77.6
67	OO1	0.001	0.001	232.0	98.8
68	J1	0.000	0.001	56.2	217.0

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	-0.29	1.11
LAT	-1.30	0.10

Harmonic Constituents

Constituent #	Name	Amplitude	Amplitude CI	Phase	Phase CI
1	M2	0.368	0.001	262.0	0.1
2	S2	0.187	0.000	283.0	0.2
3	M4	0.166	0.001	14.7	0.2
4	N2	0.102	0.001	240.0	0.3
5	MS4	0.101	0.001	70.8	0.4
6	K1	0.090	0.001	112.0	0.5
7	MU2	0.076	0.001	192.0	0.4
8	2MS6	0.068	0.001	115.0	0.4
9	M6	0.065	0.000	70.5	0.4
10	SA	0.063	0.005	290.0	3.8
11	MN4	0.059	0.001	350.0	0.7
12	K2	0.051	0.000	280.0	0.6
13	O1	0.042	0.001	350.0	1.0
14	2MN6	0.036	0.001	47.5	0.8
15	P1	0.031	0.001	103.0	1.2
16	MK4	0.029	0.001	71.2	1.5
17	EPS2	0.020	0.001	162.0	1.6
18	2MK6	0.019	0.001	115.0	1.6
19	SSA	0.019	0.004	130.0	12.0
20	2SM6	0.019	0.001	167.0	1.3
21	L2	0.016	0.000	73.9	2.0
22	2N2	0.015	0.001	220.0	2.1
23	LDA2	0.014	0.001	70.9	2.2
24	MSK6	0.011	0.001	167.0	2.4
25	MK3	0.011	0.000	133.0	0.9
26	MSM	0.011	0.004	348.0	22.6
27	NU2	0.011	0.001	275.0	2.9
28	MF	0.010	0.004	203.0	23.2
29	MM	0.010	0.004	191.0	25.6
30	MSN2	0.010	0.001	307.0	3.0

31	T2	0.009	0.000	281.0	3.3
32	S1	0.009	0.001	242.0	4.1
33	Q1	0.009	0.001	310.0	4.1
34	SO1	0.009	0.001	286.0	4.7
35	M3	0.008	0.000	184.0	1.5
36	SN4	0.008	0.001	89.0	6.0
37	MKS2	0.007	0.001	233.0	3.6
38	TAU1	0.007	0.001	179.0	5.1
39	S4	0.006	0.001	151.0	6.6
40	SIG1	0.006	0.001	355.0	7.3
41	M8	0.006	0.000	5.9	0.9
42	H1	0.006	0.001	201.0	4.8
43	OO1	0.005	0.001	275.0	6.8
44	ETA2	0.005	0.001	307.0	6.0
45	SK3	0.005	0.000	219.0	2.2
46	J1	0.005	0.001	211.0	8.1
47	MSF	0.004	0.004	44.8	51.7
48	SK4	0.004	0.001	154.0	10.7
49	NO1	0.003	0.001	149.0	12.4
50	PI1	0.003	0.001	79.8	11.6
51	H2	0.003	0.001	312.0	10.2
52	MO3	0.003	0.000	314.0	3.8
53	2MK5	0.002	0.000	151.0	2.8
54	2Q1	0.002	0.001	239.0	19.0
55	PHI1	0.002	0.001	85.9	20.2
56	CHI1	0.002	0.001	28.1	24.9
57	OQ2	0.002	0.001	193.0	17.1
58	BET1	0.002	0.001	4.9	32.3
59	GAM2	0.002	0.001	248.0	20.1
60	RHO1	0.002	0.001	241.0	25.0
61	SO3	0.001	0.000	93.6	6.7
62	PSI1	0.001	0.001	203.0	35.1
63	R2	0.001	0.000	284.0	27.8
64	UPS1	0.001	0.001	325.0	35.0
65	ALP1	0.001	0.001	325.0	48.9
66	THE1	0.001	0.001	129.0	56.5
67	3MK7	0.000	0.000	95.1	9.0
68	2SK5	0.000	0.000	346.0	22.4

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	1.93	4.18
MHWN	0.93	3.18
MSL	0.29	2.54
MLWN	-0.35	1.90
MLWS	-1.35	0.90
LAT	-2.14	0.11

Harmonic Constituents

Constituent #	Name	Amplitude	Amplitude CI	Phase	Phase CI
1	M2	1.140	0.001	174.0	0.1
2	S2	0.500	0.001	229.0	0.1
3	N2	0.229	0.001	163.0	0.3
4	K2	0.142	0.001	225.0	0.5
5	MU2	0.139	0.001	190.0	0.4
6	M4	0.127	0.001	59.5	0.4
7	K1	0.088	0.001	111.0	0.4
8	MS4	0.080	0.001	120.0	0.5
9	M6	0.065	0.001	79.3	0.5
10	L2	0.063	0.001	133.0	0.9
11	SA	0.062	0.005	281.0	5.4
12	2MS6	0.061	0.001	120.0	0.5
13	O1	0.054	0.001	349.0	0.9
14	MN4	0.044	0.001	36.9	1.0
15	LDA2	0.039	0.001	114.0	1.5
16	2MN6	0.037	0.001	55.7	0.8
17	NU2	0.036	0.001	130.0	2.0
18	EPS2	0.034	0.001	169.0	1.9
19	P1	0.031	0.001	100.0	1.0
20	2N2	0.030	0.001	144.0	1.9
21	SSA	0.030	0.005	117.0	11.2
22	T2	0.027	0.001	215.0	2.6
23	MK4	0.024	0.001	121.0	1.9
24	MSN2	0.023	0.001	349.0	2.8
25	2MK6	0.017	0.001	121.0	1.9
26	2SM6	0.015	0.001	163.0	2.0
27	MM	0.014	0.005	165.0	20.6
28	MF	0.013	0.005	204.0	21.7
29	Q1	0.013	0.001	306.0	3.1
30	MKS2	0.013	0.001	245.0	5.5

31	M8	0.012	0.000	134.0	0.8
32	M3	0.012	0.000	178.0	0.9
33	H1	0.011	0.001	198.0	5.9
34	MSM	0.011	0.005	343.0	27.5
35	MK3	0.009	0.000	175.0	1.4
36	S1	0.009	0.001	251.0	4.1
37	H2	0.009	0.001	273.0	6.8
38	MSK6	0.009	0.001	162.0	3.2
39	ETA2	0.009	0.001	303.0	7.9
40	SN4	0.009	0.001	172.0	4.5
41	MSF	0.008	0.005	47.2	39.1
42	S4	0.008	0.001	242.0	5.4
43	SO1	0.006	0.001	285.0	6.5
44	SK3	0.005	0.000	251.0	1.8
45	2MK5	0.005	0.000	190.0	1.9
46	OO1	0.005	0.001	281.0	9.7
47	SK4	0.005	0.001	237.0	9.5
48	SIG1	0.004	0.001	344.0	10.0
49	TAU1	0.004	0.001	183.0	8.9
50	2Q1	0.004	0.001	256.0	11.7
51	J1	0.004	0.001	195.0	11.0
52	GAM2	0.003	0.001	194.0	20.3
53	OQ2	0.003	0.001	111.0	16.2
54	R2	0.003	0.001	250.0	20.4
55	PI1	0.003	0.001	70.0	13.3
56	ALP1	0.003	0.001	301.0	14.3
57	SO3	0.002	0.000	161.0	4.8
58	MO3	0.002	0.000	110.0	4.8
59	NO1	0.002	0.001	131.0	19.0
60	RHO1	0.002	0.001	299.0	17.8
61	PHI1	0.002	0.001	86.7	27.5
62	3MK7	0.001	0.000	173.0	4.1
63	CHI1	0.001	0.001	29.8	30.9
64	UPS1	0.001	0.001	337.0	34.8
65	BET1	0.001	0.001	335.0	47.2
66	THE1	0.001	0.001	113.0	66.5
67	PSI1	0.001	0.001	152.0	77.5
68	2SK5	0.000	0.000	353.0	54.6

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	2.57	5.57
MHWN	1.46	4.46
MSL	0.37	3.37
MLWN	-0.73	2.27
MLWS	-1.84	1.16
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	0.322	0.001	80.6	0.1
4	K2	0.158	0.001	146.0	0.2
5	O1	0.143	0.001	88.4	0.4
6	K1	0.127	0.001	251.0	0.5
7	SA	0.076	0.005	306.0	3.1
8	NU2	0.067	0.001	84.3	0.5
9	L2	0.063	0.001	121.0	0.5
10	Q1	0.045	0.001	37.5	1.1
11	2N2	0.041	0.001	56.2	0.9
12	P1	0.039	0.001	240.0	1.3
13	MS4	0.029	0.000	102.0	0.4
14	T2	0.028	0.001	141.0	1.2
15	M4	0.028	0.000	73.5	0.5
16	LDA2	0.025	0.001	107.0	1.4
17	MM	0.022	0.004	196.0	10.7
18	SSA	0.019	0.004	148.0	12.5
19	MSF	0.014	0.005	225.0	17.5
20	S1	0.013	0.001	20.0	4.4
21	MN4	0.013	0.000	62.6	1.1
22	MU2	0.013	0.001	66.2	2.9
23	M3	0.013	0.000	86.2	1.1
24	2MS6	0.012	0.000	57.8	0.9
25	MF	0.012	0.004	208.0	18.9
26	M6	0.011	0.000	360.0	2.7
27	MK3	0.010	0.000	251.0	1.4
28	RHO1	0.010	0.001	35.6	6.8
29	H1	0.010	0.001	112.0	4.0
30	MO3	0.010	0.000	103.0	1.4

31	MK4	0.009	0.000	103.0	1.6
32	2Q1	0.009	0.001	350.0	5.3
33	MSN2	0.009	0.001	341.0	4.6
34	H2	0.008	0.001	321.0	4.9
35	MSM	0.007	0.003	99.1	30.4
36	SIG1	0.007	0.001	343.0	8.0
37	SO3	0.006	0.000	167.0	2.2
38	S4	0.006	0.000	173.0	2.2
39	M8	0.006	0.000	71.2	0.9
40	GAM2	0.006	0.001	93.0	6.7
41	J1	0.005	0.001	315.0	9.7
42	2MN6	0.005	0.000	340.0	2.0
43	R2	0.005	0.001	177.0	7.3
44	OO1	0.005	0.001	44.1	11.0
45	SN4	0.005	0.000	103.0	3.0
46	OQ2	0.005	0.001	30.7	7.2
47	ETA2	0.005	0.001	168.0	7.5
48	SK3	0.004	0.000	320.0	3.7
49	BET1	0.004	0.001	118.0	12.3
50	TAU1	0.004	0.001	358.0	27.7
51	PI1	0.004	0.001	221.0	16.0
52	SK4	0.003	0.000	172.0	3.7
53	2MK5	0.003	0.000	326.0	2.5
54	NO1	0.003	0.001	204.0	15.1
55	CHI1	0.003	0.001	133.0	16.7
56	2MK6	0.003	0.000	62.3	3.7
57	PHI1	0.003	0.001	239.0	20.8
58	THE1	0.003	0.001	257.0	21.5
59	MKS2	0.002	0.001	189.0	15.8
60	2SM6	0.002	0.000	139.0	5.0
61	ALP1	0.001	0.001	255.0	35.1
62	UPS1	0.001	0.001	178.0	33.7
63	SO1	0.001	0.001	153.0	40.2
64	PSI1	0.001	0.001	111.0	47.1
65	MSK6	0.001	0.000	142.0	10.6
66	2SK5	0.001	0.000	238.0	13.5
67	EPS2	0.000	0.000	1.4	268.0
68	3MK7	0.000	0.000	337.0	9.0

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	0.170	0.156	11	12
Deal Pier	0.193	0.192	12	13
Exmouth Marina	0.188	0.216	18	14
Herne Bay	0.236	0.203	12	13
Hastings Pier	0.171	0.181	11	12
Lymington	0.182	0.200	30	21
Penarth	0.256	0.288	8	14
Port Isaac	0.167	0.150	9	9
Scarborough	0.197	0.169	12	11
Sandown Pier	0.174	0.166	18	13
Second Severn Crossing	0.390	0.495	10	19
Swanage Pier	0.161	0.165	28	22
West Bay Harbour	0.152	0.161	14	14
Whitby Harbour	0.155	0.170	11	11

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