

TABLE C.
Mean Values of the Harmonic Constants for Use in preparing the Tide-tables.

Tide Symbol.	Auckland. A ₀ = 5.72 ft.		Bluff. A ₀ = 5.27 ft.		Dunedin. A ₀ = 3.23 ft.		Lyttelton. A ₀ = 3.20 ft.		Wellington. A ₀ = 2.93 ft.		Westport. A ₀ = 4.77 ft.	
	H.	K.	H.	K.	H.	K.	H.	K.	H.	K.	H.	K.
<i>Short Period.</i>	Ft.	°	Ft.	°	Ft.	°	Ft.	°	Ft.	°	Ft.	°
S1	0.011	31.74	0.010	100.05	0.014	18.04	0.031	29.19	0.002	327.99	0.011	78.04
S2	0.580	268.31	0.502	49.79	0.248	129.20	0.172	142.28	0.101	330.48	0.959	332.22
S4	0.019	331.83	0.009	223.42	0.006	308.72	0.010	203.88	0.004	225.46	0.007	32.75
S6	0.003	41.77	0.006	170.17	0.002	112.14	0.015	342.08	0.004	307.40	0.006	331.21
M1	0.009	144.71	0.011	127.33	0.009	90.26	0.009	72.64	0.005	23.12	0.012	143.08
M2	3.818	206.37	2.858	35.68	2.466	122.25	2.884	124.74	1.608	139.02	3.747	304.43
M3	0.039	199.21	0.011	272.74	0.016	270.28	0.013	143.67	0.019	172.05	0.021	208.15
M4	0.106	124.54	0.088	226.45	0.263	177.33	0.015	82.38	0.041	250.90	0.057	53.90
M6	0.026	314.33	0.086	79.53	0.071	356.97	0.020	64.91	0.012	99.73	0.026	36.82
O1	0.053	145.25	0.113	72.91	0.089	72.09	0.087	62.94	0.103	36.51	0.093	45.98
K1	0.235	169.17	0.058	115.68	0.074	91.32	0.150	82.90	0.082	85.35	0.073	184.39
K2	0.139	256.95	0.134	46.77	0.096	118.44	0.059	106.97	0.046	7.69	0.276	328.04
P1	0.077	163.91	0.023	105.44	0.024	90.54	0.052	106.11	0.032	79.01	0.022	133.91
J1	0.017	185.22	0.006	198.96	0.004	87.62	0.007	145.97	0.009	173.01	0.013	219.25
Q1	0.009	67.58	0.031	47.70	0.029	72.89	0.021	48.20	0.037	20.69	0.037	33.03
L2	0.108	219.79	0.109	32.44	0.151	104.17	0.084	162.36	0.028	149.18	0.097	285.41
N2	0.793	179.27	0.654	16.50	0.532	104.05	0.660	94.81	0.402	104.71	0.770	289.02
V2	0.203	206.34	0.153	53.35	0.107	109.14	0.161	109.32	0.124	126.10	0.194	320.40
U2	0.102	178.49	0.065	7.93	0.029	46.15	0.097	59.03	0.065	89.62	0.134	283.83
T2	0.057	294.82	0.020	89.11	0.017	242.34	0.026	228.18	0.029	274.37	0.053	9.08
(MS)4	0.173	195.31	0.081	2.78	0.108	140.60	0.102	120.36	0.035	134.93	0.105	294.78
(2SM)2	0.066	303.10	0.045	121.63	0.043	9.00	0.060	24.94	0.032	355.14	0.076	199.89
R2	0.015	211.16	0.014	111.90	0.019	220.38	0.017	143.74	0.010	116.63	0.035	178.80
<i>Long Period.</i>												
Mm	0.045	195.02	0.043	1.94	0.053	156.15	0.045	127.51	0.030	197.55	0.051	199.18
Mf	0.050	206.01	0.067	235.36	0.068	216.83	0.055	167.35	0.029	187.39	0.055	7.87
MSf	0.035	209.57	0.063	326.77	0.072	151.90	0.112	145.93	0.042	98.83	0.069	98.39
Sa	0.186	30.61	0.089	16.98	0.130	281.13	0.117	272.08	0.092	343.71	0.113	81.51
Ssa	0.071	164.94	0.115	82.05	0.067	124.63	0.107	143.78	0.078	133.80	0.116	111.03

The tide-tables for the year 1926 of the six New Zealand ports (Auckland, Wellington, Lyttelton, Dunedin, Bluff, and Westport) for which tidal predictions are published were received in Wellington on the 8th July, 1924, from the Hydrographer to the Admiralty. The work of measuring the times and heights of high and low water was performed at the Tidal Institute, University of Liverpool.

The cost of preparing the tidal predictions by the Tidal Institute permits the inclusion of another New Zealand port, for which a tide-table can be prepared on the present annual vote. The port of New Plymouth was therefore recommended, and approved by the Marine Department, and tidal predictions for that port will be given in future for 1928 and onwards. Details of the tidal work will be given in the "Records."

MAGNETIC OBSERVATORY.

The work of the Magnetic Observatory at Christchurch and the substation at Amberley has been efficiently carried on during the year by the Director, Mr. H. F. Skey, B.Sc.

The magnetographs have continued in regular operation throughout the year, and the base values of the curves were determined by absolute observation of declination, dip, and horizontal force, usually taken once a month.

The mean annual values of the magnetic elements as far as they are available are given in Table D following:—