

Table 2. Coefficients for the annual cycle of bottom temperature for MARMAP standard station locations. See text for explanation.

Sta	Lat	Lon	Depth	C1	A1	B1	C2	A2	B2	C3	A3	B3	Sdv
1	35.27	75.23	26	20.80	-2.58	-3.24	0.00	0.00	0.00	0.00	0.00	0.00	2.42
2	35.47	75.25	29	17.27	-6.17	-5.56	-0.41	-0.31	-2.72	0.00	0.00	0.00	2.70
3	35.68	74.97	54	13.63	0.25	-3.91	-0.39	0.26	-3.38	0.00	0.00	0.00	2.58
4	35.85	75.48	19	13.50	-4.53	-6.76	-0.38	-0.83	-1.75	0.00	0.00	0.00	2.16
5	36.25	75.53	26	12.02	-1.95	-5.94	-0.60	-1.54	-1.88	0.00	0.00	0.00	1.52
6	36.38	75.25	35	11.91	-0.89	-4.74	-0.48	-1.48	-1.38	0.00	0.00	0.00	1.37
7	36.15	75.10	36	12.73	-1.21	-4.51	-0.63	-1.25	-1.61	0.00	0.00	0.00	2.16
9	36.65	74.87	47	11.24	2.16	-2.69	-0.23	-0.06	-1.87	0.00	0.00	0.00	1.83
10	36.72	75.37	20	12.78	-3.31	-6.55	0.00	0.00	0.00	0.00	0.00	0.00	1.44
11	36.55	75.78	18	12.57	-3.91	-7.25	-0.26	-1.64	-1.02	0.09	1.52	0.64	1.27
12	36.95	75.80	12	13.01	-5.17	-8.17	0.00	0.00	0.00	0.00	0.00	0.00	1.76
13	36.92	75.55	18	12.40	-3.23	-7.08	-0.20	-1.34	-0.38	0.00	1.11	0.32	1.22
14	36.88	75.32	24	11.50	-1.50	-5.88	-0.17	-1.11	-1.11	0.00	0.00	0.00	1.43
15	36.85	75.07	35	10.93	0.67	-3.73	-0.10	-0.23	-1.85	0.00	0.00	0.00	1.65
16	36.82	74.83	49	10.80	1.45	-2.06	0.15	1.28	-2.07	0.00	0.00	0.00	2.07
19	37.22	74.75	68	10.46	2.18	-1.76	0.00	0.00	0.00	0.00	0.00	0.00	2.04
20	37.30	75.15	28	10.89	-0.83	-4.82	-0.21	-0.49	-1.65	0.00	0.00	0.00	1.52
21	37.25	75.67	11	13.34	-6.60	-7.70	0.00	0.00	0.00	0.00	0.00	0.00	1.66
22	37.62	75.32	17	12.37	-4.68	-7.52	0.00	0.00	0.00	0.00	0.00	0.00	1.57
23	37.80	75.28	16	12.78	-6.30	-7.67	0.00	0.00	0.00	0.00	0.00	0.00	1.40
24	37.52	74.95	31	10.45	-0.37	-4.37	-0.28	-0.37	-1.97	-0.02	0.02	1.01	1.29
25	37.52	74.65	60	10.22	2.51	-1.43	-0.15	0.48	-1.44	0.00	0.00	0.00	1.89
26	37.63	74.35	98	11.82	1.42	-1.73	0.00	0.00	0.00	0.00	0.00	0.00	1.49
27	37.80	74.77	40	9.65	0.78	-3.80	-0.24	-0.16	-2.06	0.00	0.00	0.00	1.30
28	38.17	74.90	25	11.74	-3.68	-7.04	0.00	0.00	0.00	0.00	0.00	0.00	1.80
29	38.75	74.95	18	11.70	-5.59	-7.36	0.00	0.00	0.00	0.00	0.00	0.00	1.47
30	38.58	74.80	27	10.40	-2.15	-5.88	-0.37	-1.10	-1.61	-0.05	0.43	1.05	1.28
31	38.42	74.65	32	9.77	-0.29	-4.51	-0.32	-0.13	-1.93	0.00	0.00	0.00	1.29
32	38.23	74.52	41	9.20	1.00	-3.22	-0.11	0.15	-2.17	0.00	0.00	0.00	1.00
33	38.07	74.37	48	9.38	1.60	-2.60	-0.08	-0.01	-2.09	0.00	0.00	0.00	1.08
34	37.85	74.18	116	12.01	1.20	-1.27	0.00	0.00	0.00	0.00	0.00	0.00	1.31
37	37.98	73.97	163	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85
38	38.35	73.65	125	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.55
39	38.42	74.12	57	8.99	2.19	-1.65	-0.14	0.33	-1.75	0.00	0.00	0.00	1.54
40	38.67	74.32	42	9.10	0.48	-3.49	-0.32	0.05	-2.04	0.00	0.00	0.00	1.14
41	38.92	74.55	22	10.96	-3.19	-6.46	0.00	0.00	0.00	0.00	0.00	0.00	1.59
42	39.23	74.43	17	11.15	-4.82	-6.90	0.00	0.00	0.00	0.00	0.00	0.00	1.61
43	39.35	74.10	24	10.13	-2.31	-6.49	-0.35	-1.45	-1.03	0.01	0.77	0.47	1.21
44	38.95	74.12	40	9.09	0.47	-3.47	-0.35	-0.28	-1.92	0.00	0.00	0.00	1.22
45	38.75	73.75	49	8.83	2.00	-2.28	0.01	0.42	-2.16	0.00	0.00	0.00	1.38
46	38.65	73.15	177	11.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.02
47	38.98	73.13	78	10.12	2.10	-1.47	0.00	0.00	0.00	0.00	0.00	0.00	2.02
49	39.28	72.85	81	9.89	2.26	-1.86	0.00	0.00	0.00	0.00	0.00	0.00	2.25
50	39.20	73.65	42	8.83	1.25	-3.12	-0.20	-0.15	-2.21	0.00	0.00	0.00	0.93
51	39.65	73.38	33	8.68	0.76	-3.81	-0.23	-0.62	-1.88	0.00	0.00	0.00	0.92
52	39.57	73.82	22	10.02	-1.93	-5.65	-0.14	-1.19	-0.95	0.00	0.00	0.00	1.33
53	39.72	74.05	15	10.27	-3.79	-6.73	-0.20	-1.64	-1.02	0.00	0.00	0.00	2.09
54	40.12	73.80	28	8.87	-0.64	-5.11	-0.09	-0.69	-1.34	0.00	0.00	0.00	1.41
55	40.43	73.83	26	9.56	-1.11	-5.51	-0.19	-0.49	-1.22	0.00	0.00	0.00	1.40
56	40.27	73.60	25	9.74	-1.75	-6.46	-0.15	-0.98	-0.69	0.00	0.00	0.00	1.13
57	40.10	73.38	40	8.24	1.31	-3.61	-0.20	-0.30	-1.85	0.00	0.00	0.00	1.05
58	39.87	73.08	66	7.86	1.76	-2.24	-0.08	0.44	-1.42	0.00	0.00	0.00	1.26
59	39.65	72.77	69	8.59	2.31	-2.31	-0.13	0.23	-1.20	0.00	0.00	0.00	1.47
60	39.47	72.55	112	11.66	0.79	-1.31	0.00	0.00	0.00	0.00	0.00	0.00	1.24
61	39.30	72.32	249	10.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.09
64	39.55	72.12	226	10.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.44
65	39.85	72.45	74	8.49	2.61	-1.94	-0.05	0.85	-0.91	0.00	0.00	0.00	1.38
66	40.32	72.72	50	7.71	1.41	-2.61	-0.04	0.04	-0.86	0.00	0.00	0.00	0.78
67	40.47	73.22	26	9.29	-1.46	-5.40	-0.28	-0.41	-1.39	0.00	0.00	0.00	1.30
68	40.73	72.67	26	9.91	-2.92	-5.93	0.00	0.00	0.00	0.00	0.00	0.00	1.88
69	40.57	72.47	41	8.43	0.91	-4.04	-0.25	-0.05	-1.31	0.00	0.00	0.00	0.89
70	40.23	71.95	65	8.41	2.59	-2.86	-0.10	1.02	-1.57	0.00	0.00	0.00	1.13
71	39.87	71.82	169	11.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.98
72	40.07	71.50	92	11.60	0.78	-1.62	0.00	0.00	0.00	0.00	0.00	0.00	1.60
73	40.52	71.60	76	8.41	2.15	-2.72	-0.10	1.20	-0.96	0.00	0.00	0.00	1.18

74	40.82	72.13	40	8.54	0.31	-4.88	-0.13	-0.47	-1.26	0.00	0.00	0.00	1.12
75	41.07	71.70	45	8.97	-0.39	-5.08	0.00	0.00	0.00	0.00	0.00	0.00	1.44
76	41.33	71.35	30	9.29	-1.99	-5.88	-0.14	-0.15	-0.84	0.04	0.35	0.57	0.95
77	41.15	71.25	40	8.60	-0.49	-4.85	-0.04	0.22	-0.87	0.00	0.00	0.00	0.90
78	40.97	71.17	50	8.29	0.93	-4.53	-0.15	0.45	-1.12	0.00	0.00	0.00	0.91
79	40.68	71.03	62	8.31	0.97	-4.32	-0.21	0.78	-1.45	0.00	0.00	0.00	1.16
80	40.35	70.85	99	11.58	1.18	-0.91	-0.06	-0.60	-1.17	0.00	0.00	0.00	1.63
81	40.17	70.77	132	12.42	0.41	-0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.91
82	39.98	70.67	406	8.76	0.79	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.72
85	40.22	70.42	114	12.23	1.01	-1.07	0.00	0.00	0.00	0.00	0.00	0.00	1.40
86	40.70	70.58	57	8.42	0.51	-4.57	-0.20	-0.64	-1.86	0.00	0.00	0.00	1.44
87	41.17	71.00	34	9.21	-1.72	-5.53	-0.14	0.14	-0.89	0.00	0.00	0.00	0.92
88	41.05	70.55	44	8.44	-0.90	-5.19	-0.08	-0.55	-1.28	0.00	0.00	0.00	1.07
89	40.68	70.18	45	8.56	-0.71	-5.07	-0.14	-0.56	-1.64	0.00	0.00	0.00	1.27
90	40.40	69.70	70	8.89	0.81	-3.21	-0.16	0.25	-1.23	0.00	0.00	0.00	1.49
91	40.13	69.57	91	10.96	1.33	-1.77	0.00	0.00	0.00	0.00	0.00	0.00	2.04
93	40.88	69.57	37	8.88	-2.10	-4.72	0.00	0.00	0.00	0.00	0.00	0.00	0.83
94	41.53	69.43	63	6.12	0.86	-2.07	-0.14	0.33	-0.80	0.00	0.00	0.00	0.76
95	41.97	69.83	96	5.80	0.88	-1.76	-0.07	0.22	-0.61	0.00	0.00	0.00	0.52
96	42.25	69.72	220	6.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65
97	42.10	70.33	61	5.90	0.35	-3.32	-0.17	0.12	-1.05	0.00	0.00	0.00	0.77
98	42.43	70.63	75	5.91	0.51	-3.18	-0.11	0.54	-0.42	0.00	0.00	0.00	0.68
99	42.80	70.53	101	5.06	1.38	-1.97	0.00	0.00	0.00	0.00	0.00	0.00	1.44
100	42.83	70.00	197	5.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75
101	43.13	69.97	157	5.35	0.70	-0.75	-0.14	0.85	-0.04	-0.02	0.50	0.34	0.46
102	43.40	70.20	103	6.28	1.13	-2.31	-0.22	0.32	-0.69	0.00	0.00	0.00	0.94
103	43.33	69.68	206	5.43	0.52	-0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.57
104	43.67	69.37	100	6.45	1.01	-2.72	-0.16	0.30	-0.61	0.00	0.00	0.00	0.49
105	42.97	69.28	163	5.73	0.88	-0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.65
106	42.58	69.23	225	6.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71
107	42.18	69.20	194	5.72	0.55	-0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.48
108	41.90	69.17	216	5.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68
109	41.65	69.15	170	5.35	0.63	-0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.45
110	41.33	69.12	160	5.47	1.06	-0.32	-0.07	0.64	-0.07	-0.06	0.40	0.09	0.37
111	41.07	69.10	89	6.96	0.66	-2.27	0.00	0.00	0.00	0.00	0.00	0.00	0.83
112	40.92	69.10	72	8.39	-0.81	-3.89	0.00	0.00	0.00	0.00	0.00	0.00	0.80
113	40.65	69.08	75	8.40	-0.32	-3.77	-0.08	-0.41	-1.28	-0.05	-0.93	0.58	1.06
114	40.42	69.05	80	9.10	1.18	-3.24	-0.17	0.59	-1.56	0.00	0.00	0.00	1.07
115	40.08	69.02	171	11.36	1.24	0.24	0.00	0.00	0.00	0.00	0.00	0.00	1.26
117	40.48	68.62	82	8.79	1.08	-2.79	-0.10	0.89	-0.68	0.00	0.00	0.00	1.22
118	40.33	68.35	131	11.64	0.67	-0.62	0.00	0.00	0.00	0.00	0.00	0.00	1.00
119	40.52	67.93	109	9.97	1.10	-1.49	0.00	0.00	0.00	0.00	0.00	0.00	1.74
120	40.80	68.28	57	9.32	-0.75	-4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.81
121	40.85	68.73	64	9.50	-1.42	-5.08	0.00	0.00	0.00	0.00	0.00	0.00	0.82
122	41.33	68.70	85	6.92	0.57	-1.91	0.00	0.00	0.00	0.00	0.00	0.00	1.18
123	41.18	68.13	38	10.27	-2.12	-5.67	0.00	0.00	0.00	0.00	0.00	0.00	0.54
124	41.62	68.10	35	10.01	-2.70	-5.52	0.10	-0.51	0.13	0.00	0.00	0.00	0.61
125	41.87	68.18	177	6.57	0.65	-0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.74
126	41.62	68.88	100	5.50	0.91	-0.70	-0.13	0.74	0.03	0.00	0.29	0.39	0.40
127	41.98	68.65	168	5.81	0.67	0.16	-0.02	0.21	0.37	0.00	0.00	0.00	0.43
128	42.17	68.80	188	5.59	0.65	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.47
129	42.32	68.45	198	6.78	-0.02	-0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.68
130	42.67	68.32	207	6.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70
131	42.75	68.77	201	6.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68
132	42.92	68.37	152	6.43	0.44	-0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.47
133	43.20	67.98	203	6.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94
134	43.38	68.13	208	6.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.03
135	43.37	68.68	136	6.41	1.19	-1.43	-0.10	0.57	-0.46	0.00	0.00	0.00	0.76
136	43.13	69.02	172	6.02	0.89	-0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.39
137	43.62	68.93	135	6.47	0.96	-2.82	0.00	0.00	0.00	0.00	0.00	0.00	0.59
138	43.97	68.58	88	6.69	0.18	-3.57	-0.19	0.01	-0.58	0.00	0.00	0.00	0.60
140	43.97	68.18	108	6.59	0.47	-2.68	-0.25	0.71	-0.36	0.00	0.00	0.00	0.55
141	44.33	67.72	68	6.70	-0.65	-3.85	0.00	0.00	0.00	0.00	0.00	0.00	0.49
142	43.82	67.72	223	7.59	0.52	-0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.68
143	42.98	67.70	182	7.03	0.62	-0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.49
144	42.60	67.70	201	7.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71
145	42.30	67.70	236	7.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.69
146	41.80	67.70	32	9.72	-2.38	-5.28	0.08	-0.47	0.20	0.00	0.00	0.00	0.64
147	41.50	67.68	24	10.08	-2.63	-5.71	0.00	0.00	0.00	0.00	0.00	0.00	0.58
148	41.27	67.68	40	10.00	-2.01	-5.79	0.00	0.00	0.00	0.00	0.00	0.00	0.61
149	40.93	67.68	67	8.77	-0.38	-4.23	-0.15	0.09	-0.55	0.00	0.00	0.00	0.51

150	40.62	67.68	81	8.80	1.09	-2.51	-0.15	0.54	-0.74	0.00	0.00	0.00	1.29
153	40.77	67.32	97	9.26	0.67	-1.75	0.00	0.00	0.00	0.00	0.00	0.00	1.77
154	40.67	67.08	190	10.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.76
155	41.22	66.93	68	8.55	-0.39	-4.02	-0.10	0.20	-0.44	0.00	0.00	0.00	0.55
157	41.55	67.02	63	9.32	-1.09	-4.87	0.00	0.00	0.00	0.00	0.00	0.00	0.61
158	41.60	66.52	83	8.40	-0.62	-4.18	0.00	0.00	0.00	0.00	0.00	0.00	0.66
159	42.03	66.83	75	8.75	-0.87	-3.86	0.00	0.00	0.00	0.00	0.00	0.00	0.58
160	41.98	67.40	22	9.28	-1.91	-4.67	0.16	-0.28	0.46	0.00	0.00	0.00	0.52
162	42.72	67.47	205	7.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75
163	42.77	66.97	170	8.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.07
164	43.20	66.80	142	8.06	0.22	-2.16	0.00	0.00	0.00	0.00	0.00	0.00	0.56
165	43.58	66.73	126	7.69	0.85	-1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.89
166	43.50	67.00	205	8.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86
167	43.70	67.43	205	7.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.78
168	44.03	67.17	140	7.10	0.79	-0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.64
171	43.53	66.33	74	7.05	-0.26	-3.61	0.00	0.00	0.00	0.00	0.00	0.00	0.89
172	43.02	66.33	128	7.25	0.65	-2.51	0.00	0.00	0.00	0.00	0.00	0.00	1.07
173	42.65	66.33	110	7.87	-0.19	-1.43	0.00	0.00	0.00	0.00	0.00	0.00	1.04
174	42.47	66.33	250	7.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94
175	42.28	66.33	245	8.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66
176	42.15	66.33	182	7.81	0.09	-0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.57
177	41.87	66.33	85	8.08	-0.51	-3.43	0.00	0.00	0.00	0.00	0.00	0.00	0.71
178	41.50	66.33	89	7.48	0.31	-2.76	-0.14	0.04	-0.76	0.00	0.00	0.00	0.88
179	41.17	66.32	155	9.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.94
181	44.00	66.20	22	7.03	-2.79	-5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94
182	43.40	67.72	261	7.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72
183	43.28	69.33	164	5.69	1.17	-0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.46
184	38.57	74.88	20	11.84	-5.25	-7.78	0.00	0.00	0.00	0.00	0.00	0.00	1.44
185	39.92	73.93	20	10.13	-2.92	-6.79	-0.18	-1.06	-0.50	0.00	0.00	0.00	1.13
186	39.87	73.55	33	8.90	0.43	-4.25	-0.26	-0.81	-1.55	0.00	0.00	0.00	1.05
187	40.25	73.90	22	10.13	-2.82	-6.67	0.00	0.00	0.00	0.00	0.00	0.00	1.56
188	42.43	70.15	81	5.89	0.99	-2.24	-0.09	0.45	-0.44	0.00	0.00	0.00	0.61
189	42.82	66.33	62	7.18	-0.05	-3.09	0.00	0.00	0.00	0.00	0.00	0.00	1.17
190	43.28	66.33	81	6.80	-0.88	-4.28	0.00	0.00	0.00	0.00	0.00	0.00	0.74
191	41.65	65.92	125	8.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.66
192	41.90	65.82	148	8.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01
193	40.87	66.62	245	10.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.90