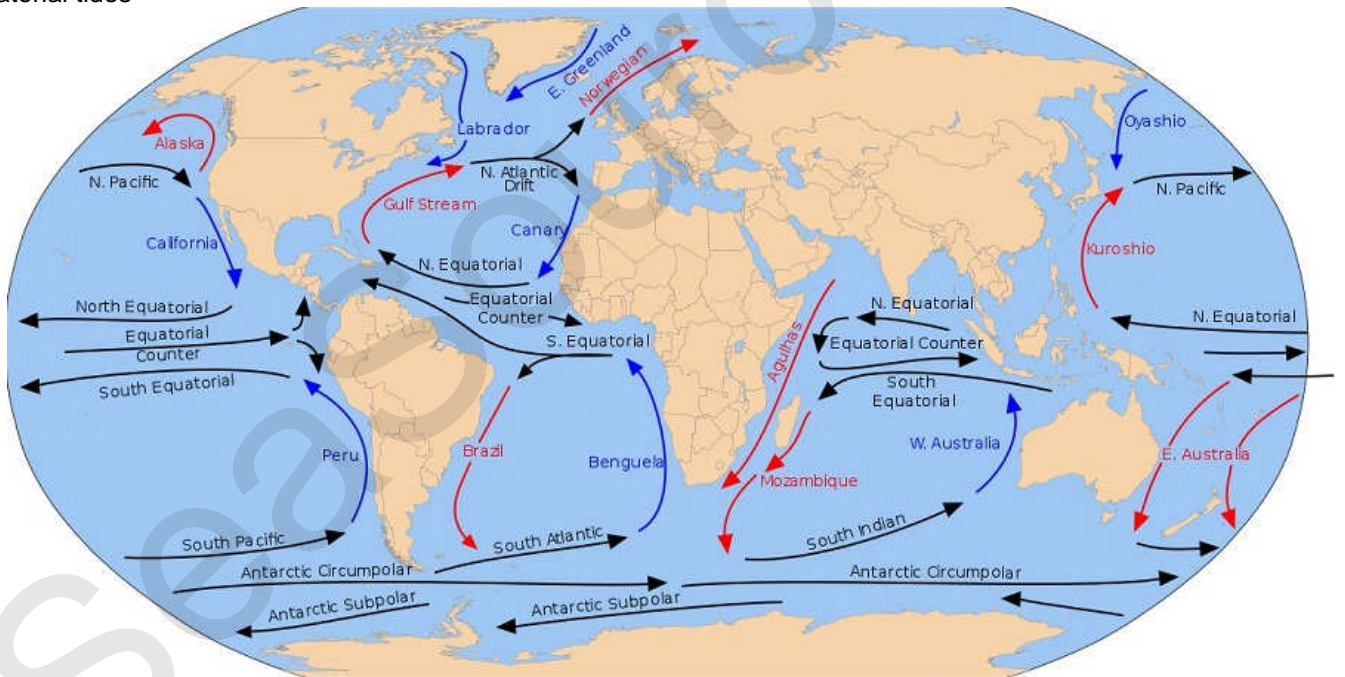


equatorial tides



ocean_currents

TABLE 3.—HEIGHT OF TIDE AT ANY TIME

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Time from the nearest high water or low water																	
Duration of rise or fall, see footnote																	
A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.
4 00	0 08	0 16	0 24	0 32	0 40	0 48	0 56	1 04	1 12	1 20	1 28	1 36	1 44	1 52	2 00	2 08	
4 20	0 09	0 17	0 26	0 35	0 43	0 52	1 01	1 09	1 18	1 27	1 35	1 44	1 53	2 01	2 10	2 19	
4 40	0 09	0 19	0 28	0 37	0 47	0 56	1 05	1 15	1 24	1 33	1 43	1 52	2 01	2 11	2 20	2 30	
5 00	0 10	0 20	0 30	0 40	0 50	1 00	1 10	1 20	1 30	1 40	1 50	2 00	2 10	2 20	2 30	2 40	
5 20	0 11	0 21	0 32	0 43	0 53	1 04	1 15	1 25	1 36	1 47	1 57	2 08	2 19	2 29	2 40	2 50	
5 40	0 11	0 23	0 34	0 45	0 57	1 08	1 19	1 31	1 42	1 53	2 05	2 16	2 27	2 39	2 50	3 00	
6 00	0 12	0 24	0 36	0 48	1 00	1 12	1 24	1 36	1 48	2 00	2 12	2 24	2 36	2 48	3 00	3 10	
6 20	0 13	0 25	0 38	0 51	1 03	1 16	1 29	1 41	1 54	2 07	2 19	2 32	2 45	2 57	3 10	3 20	
6 40	0 13	0 27	0 40	0 53	1 07	1 20	1 33	1 47	2 00	2 13	2 27	2 40	2 53	3 07	3 20	3 30	
7 00	0 14	0 28	0 42	0 56	1 10	1 24	1 38	1 52	2 08	2 20	2 34	2 48	3 02	3 16	3 30	3 40	
7 20	0 15	0 29	0 44	0 59	1 13	1 28	1 43	1 57	2 12	2 27	2 41	2 56	3 11	3 25	3 40	3 50	
7 40	0 15	0 31	0 46	1 01	1 17	1 32	1 47	2 03	2 18	2 33	2 49	3 04	3 19	3 35	3 50	4 00	
8 00	0 16	0 32	0 48	1 04	1 20	1 36	1 52	2 08	2 24	2 40	2 56	3 12	3 28	3 44	4 00	4 10	
8 20	0 17	0 33	0 50	1 07	1 23	1 40	1 57	2 13	2 30	2 47	3 03	3 20	3 37	3 53	4 10	4 20	
8 40	0 17	0 35	0 52	1 09	1 27	1 44	2 01	2 19	2 38	2 53	3 11	3 28	3 45	4 03	4 20	4 30	
9 00	0 18	0 36	0 54	1 12	1 30	1 48	2 06	2 24	2 42	3 00	3 18	3 36	3 54	4 12	4 30	4 40	
9 20	0 19	0 37	0 56	1 15	1 33	1 52	2 11	2 29	2 48	3 07	3 25	3 44	4 03	4 21	4 40	4 50	
9 40	0 19	0 39	0 58	1 17	1 37	1 56	2 15	2 35	2 54	3 13	3 33	3 52	4 11	4 31	4 50	5 00	
10 00	0 20	0 40	1 00	1 20	1 40	2 00	2 20	2 40	3 00	3 20	3 40	4 00	4 20	4 40	5 00	5 10	
10 20	0 21	0 41	1 02	1 23	1 43	2 04	2 25	2 45	3 06	3 27	3 47	4 08	4 29	4 49	5 10	5 20	
10 40	0 21	0 43	1 04	1 25	1 47	2 08	2 29	2 51	3 12	3 33	3 55	4 16	4 37	4 59	5 20	5 30	

Correction to height																	
Range of tide, see footnote																	
Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.
0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5
1.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.6
1.5	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.8
2.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.6	0.7	0.8	0.9	1.0
2.5	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.1	1.2
3.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.3	1.3	1.5	1.5
3.5	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.6	0.7	0.9	1.0	1.2	1.4	1.6	1.8	2.0	2.0
4.0	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.7	0.8	1.0	1.1	1.3	1.6	1.8	2.0	2.2	2.2
4.5	0.0	0.0	0.1	0.2	0.3	0.4	0.6	0.7	0.9	1.1	1.3	1.6	1.8	2.0	2.2	2.5	2.5
5.0	0.0	0.1	0.1	0.2	0.3	0.5	0.6	0.8	1.0	1.2	1.5	1.7	2.0	2.2	2.5	2.8	2.8
5.5	0.0	0.1	0.1	0.2	0.4	0.5	0.7	0.9	1.1	1.4	1.6	1.9	2.2	2.5	2.7	3.0	3.0
6.0	0.0	0.1	0.1	0.3	0.4	0.6	0.8	1.0	1.2	1.5	1.8	2.1	2.4	2.7	2.9	3.2	3.2
6.5	0.0	0.1	0.2	0.3	0.4	0.6	0.8	1.1	1.3	1.6	1.9	2.2	2.6	2.9	3.1	3.5	3.5
7.0	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.2	1.4	1.8	2.1	2.4	2.8	3.1	3.4	3.8	3.8
7.5	0.0	0.1	0.2	0.3	0.5	0.7	1.0	1.2	1.5	1.9	2.2	2.6	3.0	3.4	3.8	4.2	4.2
8.0	0.0	0.1	0.2	0.3	0.5	0.8	1.0	1.3	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.4
8.5	0.0	0.1	0.2	0.4	0.6	0.8	1.1	1.4	1.8	2.1	2.5	2.9	3.4	3.8	4.3	4.8	4.8
9.0	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.5	1.9	2.2	2.7	3.1	3.6	4.0	4.5	5.0	5.0
9.5	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.6	2.0	2.4	2.8	3.3	3.8	4.3	4.8	5.3	5.3
10.0	0.0	0.1	0.2	0.4	0.7	1.0	1.3	1.7	2.1	2.5	3.0	3.5	4.0	4.5	5.0	5.5	5.5
10.5	0.0	0.1	0.3	0.5	0.7	1.0	1.3	1.7	2.2	2.6	3.1	3.6	4.2	4.7	5.2	5.7	5.7
11.0	0.0	0.1	0.3	0.5	0.7	1.1	1.4	1.8	2.3	2.8	3.3	3.8	4.4	4.9	5.5	6.0	6.0
11.5	0.0	0.1	0.3	0.5	0.8	1.1	1.5	1.9	2.4	2.9	3.4	4.0	4.6	5.1	5.8	6.3	6.3
12.0	0.0	0.1	0.3	0.5	0.8	1.1	1.5	2.0	2.5	3.0	3.6	4.1	4.8	5.4	6.0	6.6	6.6
12.5	0.0	0.1	0.3	0.5	0.8	1.2	1.6	2.1	2.6	3.1	3.7	4.3	5.0	5.6	6.2	6.8	6.8
13.0	0.0	0.1	0.3	0.6	0.9	1.2	1.7	2.2	2.7	3.2	3.9	4.5	5.1	5.8	6.5	7.1	7.1
13.5	0.0	0.1	0.3	0.6	0.9	1.3	1.7	2.2	2.8	3.4	4.0	4.7	5.3	6.0	6.8	7.4	7.4
14.0	0.0	0.2	0.3	0.6	0.9	1.3	1.8	2.3	2.9	3.5	4.2	4.8	5.5	6.3	7.0	7.7	7.7
14.5	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.4	3.0	3.6	4.3	5.0	5.7	6.5	7.2	8.0	8.0
15.0	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.5	3.1	3.8	4.4	5.2	5.9	6.7	7.5	8.3	8.3
15.5	0.0	0.2	0.4	0.7	1.0	1.5	2.0	2.6	3.2	3.9	4.6	5.4	6.1	6.9	7.8	8.6	8.6
16.0	0.0	0.2	0.4	0.7	1.1	1.5	2.1	2.6	3.3	4.0	4.7	5.5	6.3	7.2	8.0	8.9	8.9
16.5	0.0	0.2	0.4	0.7	1.1	1.6	2.1	2.7	3.4	4.1	4.9	5.7	6.5	7.4	8.2	9.1	9.1
17.0	0.0	0.2	0.4	0.7	1.1	1.6	2.2	2.8	3.5	4.2	5.0	5.9	6.7	7.6	8.5	9.4	9.4
17.5	0.0	0.2	0.4	0.8	1.2	1.7	2.2	2.9	3.6	4.4	5.2	6.0	6.9	7.8	8.8	9.7	9.7
18.0	0.0	0.2	0.4	0.8	1.2	1.7	2.3	3.0	3.7	4.5	5.3	6.2	7.1	8.1	9.0	9.9	9.9
18.5	0.1	0.2	0.5	0.8	1.2	1.8	2.4	3.1	3.8	4.6	5.5	6.4	7.3	8.3	9.2	10.1	10.1
19.0	0.1	0.2	0.5	0.8	1.3	1.8	2.4	3.1	3.9	4.8	5.6	6.6	7.5	8.5	9.5	10.4	10.4
19.5	0.1	0.2	0.5	0.8	1.3	1.9	2.5	3.2	4.0	4.9	5.8	6.7	7.7	8.7	9.7	10.6	10.6
20.0	0.1	0.2	0.5	0.9	1.3	1.9	2.6	3.3	4.1	5.0	5.9	6.9	7.9	8.9	9.9	10.8	10.8

Obtain from the predictions the high water and low water, one of which is before and the other after the time for which the height is required. The difference between the times of occurrence of these tides is the duration of rise or fall, and the difference between their heights is the range of tide for the above table. Find the difference between the nearest high or low water and the time for which the height is required.

Enter the table with the duration of rise or fall, printed in heavy-faced type, which most nearly agrees with the actual value, and on that horizontal line find the time from the nearest high or low water which agrees most nearly with the corresponding actual difference. The correction sought is in the column directly below, on the line with the range of tide.

When the nearest tide is high water, subtract the correction.

When the nearest tide is low water, add the correction.

TABLE 3.—HEIGHT OF TIDE AT ANY TIME

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Duration of rise or fall, see footnote		Time from the nearest high water or low water															
		A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.
4 00	0 08	0 16	0 24	0 32	0 40	0 48	0 56	1 04	1 12	1 20	1 28	1 36	1 44	1 52	2 00	2 08	
4 20	0 09	0 17	0 26	0 35	0 43	0 52	1 01	1 09	1 18	1 27	1 35	1 44	1 53	2 01	2 10	2 19	
4 40	0 09	0 19	0 28	0 37	0 47	0 56	1 05	1 15	1 24	1 33	1 43	1 52	2 01	2 11	2 20	2 30	
5 00	0 10	0 20	0 30	0 40	0 50	1 00	1 10	1 20	1 30	1 40	1 50	2 00	2 10	2 20	2 30	2 40	
5 20	0 11	0 21	0 32	0 43	0 53	1 04	1 15	1 25	1 36	1 47	1 57	2 08	2 19	2 29	2 40	2 50	
5 40	0 11	0 23	0 34	0 45	0 57	1 08	1 19	1 31	1 42	1 53	2 05	2 16	2 27	2 39	2 50	3 00	
6 00	0 12	0 24	0 36	0 48	1 00	1 12	1 24	1 36	1 48	2 00	2 12	2 24	2 36	2 48	3 00	3 10	
6 20	0 13	0 25	0 38	0 51	1 03	1 16	1 29	1 41	1 54	2 07	2 19	2 32	2 45	2 57	3 10	3 20	
6 40	0 13	0 27	0 40	0 53	1 07	1 20	1 33	1 47	2 00	2 13	2 27	2 40	2 53	3 07	3 20	3 30	
7 00	0 14	0 28	0 42	0 56	1 10	1 24	1 38	1 52	2 06	2 20	2 34	2 48	3 02	3 16	3 30	3 40	
7 20	0 15	0 29	0 44	0 59	1 13	1 28	1 43	1 57	2 12	2 27	2 41	2 56	3 11	3 25	3 40	3 50	
7 40	0 15	0 31	0 46	1 01	1 17	1 32	1 47	2 03	2 18	2 33	2 49	3 04	3 19	3 35	3 50	4 00	
8 00	0 16	0 32	0 48	1 04	1 20	1 36	1 52	2 08	2 24	2 40	2 56	3 12	3 28	3 44	4 00	4 10	
8 20	0 17	0 33	0 50	1 07	1 23	1 40	1 57	2 13	2 30	2 47	3 03	3 20	3 37	3 53	4 10	4 20	
8 40	0 17	0 35	0 52	1 09	1 27	1 44	2 01	2 19	2 38	2 53	3 11	3 28	3 45	4 03	4 20	4 30	
9 00	0 18	0 36	0 54	1 12	1 30	1 48	2 06	2 24	2 42	3 00	3 18	3 36	3 54	4 12	4 30	4 40	
9 20	0 19	0 37	0 56	1 15	1 33	1 52	2 11	2 29	2 48	3 07	3 25	3 44	4 03	4 21	4 40	4 50	
9 40	0 19	0 39	0 58	1 17	1 37	1 56	2 15	2 35	2 54	3 13	3 33	3 52	4 11	4 31	4 50	5 00	
10 00	0 20	0 40	1 00	1 20	1 40	2 00	2 20	2 40	3 00	3 20	3 40	4 00	4 20	4 40	5 00	5 10	
10 20	0 21	0 41	1 02	1 23	1 43	2 04	2 25	2 45	3 06	3 27	3 47	4 08	4 29	4 49	5 10	5 20	
10 40	0 21	0 43	1 04	1 25	1 47	2 08	2 29	2 51	3 12	3 33	3 55	4 16	4 37	4 59	5 20	5 30	

Range of tide, see footnote		Correction to height															
		Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.
0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	
1.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	
1.5	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.6	
2.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.7	0.9	1.0	
2.5	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.3	1.5	
3.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.4	1.6	1.8	
3.5	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.6	0.7	0.9	1.0	1.2	1.4	1.6	1.8	2.0	
4.0	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.7	0.8	1.0	1.1	1.3	1.6	1.8	2.0	2.2	
4.5	0.0	0.0	0.1	0.2	0.3	0.4	0.6	0.7	0.9	1.1	1.3	1.6	1.8	2.0	2.2	2.5	
5.0	0.0	0.1	0.1	0.2	0.3	0.5	0.6	0.8	1.0	1.2	1.5	1.7	2.0	2.2	2.5	2.8	
5.5	0.0	0.1	0.1	0.2	0.4	0.5	0.7	0.9	1.1	1.4	1.6	1.9	2.2	2.5	2.8	3.0	
6.0	0.0	0.1	0.1	0.3	0.4	0.6	0.8	1.0	1.2	1.5	1.8	2.1	2.4	2.7	2.9	3.2	
6.5	0.0	0.1	0.2	0.3	0.4	0.6	0.8	1.1	1.3	1.6	1.9	2.2	2.6	2.9	3.1	3.5	
7.0	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.2	1.4	1.8	2.1	2.4	2.8	3.1	3.5	3.8	
7.5	0.0	0.1	0.2	0.3	0.5	0.7	1.0	1.2	1.5	1.9	2.2	2.6	3.0	3.4	3.8	4.0	
8.0	0.0	0.1	0.2	0.3	0.5	0.8	1.0	1.3	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.2	
8.5	0.0	0.1	0.2	0.4	0.6	0.8	1.1	1.4	1.8	2.1	2.5	2.9	3.4	3.8	4.2	4.5	
9.0	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.5	1.9	2.2	2.7	3.1	3.6	4.0	4.5	4.8	
9.5	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.6	2.0	2.4	2.8	3.3	3.8	4.3	4.8	5.0	
10.0	0.0	0.1	0.2	0.4	0.7	1.0	1.3	1.7	2.1	2.5	3.0	3.5	4.0	4.5	5.0	5.2	
10.5	0.0	0.1	0.3	0.5	0.7	1.0	1.3	1.7	2.2	2.6	3.1	3.6	4.2	4.7	5.2	5.5	
11.0	0.0	0.1	0.3	0.5	0.7	1.1	1.4	1.8	2.3	2.8	3.3	3.8	4.4	4.9	5.5	5.8	
11.5	0.0	0.1	0.3	0.5	0.8	1.1	1.5	1.9	2.4	2.9	3.4	4.0	4.6	5.1	5.8	6.0	
12.0	0.0	0.1	0.3	0.5	0.8	1.1	1.5	2.0	2.5	3.0	3.6	4.1	4.8	5.4	6.0	6.2	
12.5	0.0	0.1	0.3	0.5	0.8	1.2	1.6	2.1	2.6	3.1	3.7	4.3	5.0	5.6	6.2	6.5	
13.0	0.0	0.1	0.3	0.6	0.9	1.2	1.7	2.2	2.7	3.2	3.9	4.5	5.1	5.8	6.5	6.8	
13.5	0.0	0.1	0.3	0.6	0.9	1.3	1.7	2.2	2.8	3.4	4.0	4.7	5.3	6.0	6.8	7.0	
14.0	0.0	0.1	0.3	0.6	0.9	1.3	1.8	2.3	2.9	3.5	4.2	4.8	5.5	6.3	7.0	7.2	
14.5	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.4	3.0	3.6	4.3	5.0	5.7	6.5	7.2	7.5	
15.0	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.5	3.1	3.8	4.4	5.2	5.9	6.7	7.5	7.8	
15.5	0.0	0.2	0.4	0.7	1.0	1.5	2.0	2.6	3.2	3.9	4.6	5.4	6.1	6.9	7.8	8.0	
16.0	0.0	0.2	0.4	0.7	1.1	1.5	2.1	2.6	3.3	4.0	4.7	5.5	6.3	7.2	8.0	8.2	
16.5	0.0	0.2	0.4	0.7	1.1	1.6	2.1	2.7	3.4	4.1	4.9	5.7	6.5	7.4	8.2	8.5	
17.0	0.0	0.2	0.4	0.7	1.1	1.6	2.2	2.8	3.5	4.2	5.0	5.9	6.7	7.6	8.5	8.8	
17.5	0.0	0.2	0.4	0.8	1.2	1.7	2.2	2.9	3.6	4.4	5.2	6.0	6.9	7.8	8.8	9.0	
18.0	0.0	0.2	0.4	0.8	1.2	1.7	2.3	3.0	3.7	4.5	5.3	6.2	7.1	8.1	9.0	9.2	
18.5	0.1	0.2	0.5	0.8	1.2	1.8	2.4	3.1	3.8	4.6	5.5	6.4	7.3	8.3	9.2	9.5	
19.0	0.1	0.2	0.5	0.8	1.3	1.8	2.4	3.1	3.9	4.8	5.6	6.6	7.5	8.5	9.5	9.8	
19.5	0.1	0.2	0.5	0.8	1.3	1.9	2.5	3.2	4.0	4.9	5.8	6.7	7.7	8.7	9.8	10.0	
20.0	0.1	0.2	0.5	0.9	1.3	1.9	2.6	3.3	4.1	5.0	5.9	6.9	7.9	9.0	10.0	10.2	

Obtain from the predictions the high water and low water, one of which is before and the other after the time for which the height is required. The difference between the times of occurrence of these tides is the duration of rise or fall, and the difference between their heights is the range of tide for the above table. Find the difference between the nearest high or low water and the time for which the height is required.

Enter the table with the duration of rise or fall, printed in heavy-faced type, which most nearly agrees with the actual value, and on that horizontal line find the time from the nearest high or low water which agrees most nearly with the corresponding actual difference. The correction sought is in the column directly below, on the line with the range of tide.

When the nearest tide is high water, subtract the correction.
When the nearest tide is low water, add the correction.

TABLE 3.—HEIGHT OF TIDE AT ANY TIME

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Duration of rise or fall, see footnote		Time from the nearest high water or low water															
		A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.
4 00	0 08	0 16	0 24	0 32	0 40	0 48	0 56	1 04	1 12	1 20	1 28	1 36	1 44	1 52	2 00	2 08	
4 20	0 09	0 17	0 26	0 35	0 43	0 52	1 01	1 09	1 18	1 27	1 35	1 44	1 53	2 01	2 10	2 19	
4 40	0 09	0 19	0 28	0 37	0 47	0 56	1 05	1 15	1 24	1 33	1 43	1 52	2 01	2 11	2 20	2 30	
5 00	0 10	0 20	0 30	0 40	0 50	1 00	1 10	1 20	1 30	1 40	1 50	2 00	2 10	2 20	2 30	2 40	
5 20	0 11	0 21	0 32	0 43	0 53	1 04	1 15	1 25	1 36	1 47	1 57	2 08	2 19	2 29	2 40	2 50	
5 40	0 11	0 23	0 34	0 45	0 57	1 08	1 19	1 31	1 42	1 53	2 05	2 16	2 27	2 39	2 50	3 00	
6 00	0 12	0 24	0 36	0 48	1 00	1 12	1 24	1 36	1 48	2 00	2 12	2 24	2 36	2 48	3 00	3 10	
6 20	0 13	0 25	0 38	0 51	1 03	1 16	1 29	1 41	1 54	2 07	2 19	2 32	2 45	2 57	3 10	3 20	
6 40	0 13	0 27	0 40	0 53	1 07	1 20	1 33	1 47	2 00	2 13	2 27	2 40	2 53	3 07	3 20	3 30	
7 00	0 14	0 28	0 42	0 56	1 10	1 24	1 38	1 52	2 06	2 20	2 34	2 48	3 02	3 16	3 30	3 40	
7 20	0 15	0 29	0 44	0 59	1 13	1 28	1 43	1 57	2 12	2 27	2 41	2 56	3 11	3 25	3 40	3 50	
7 40	0 15	0 31	0 46	1 01	1 17	1 32	1 47	2 03	2 18	2 33	2 49	3 04	3 19	3 35	3 50	4 00	
8 00	0 16	0 32	0 48	1 04	1 20	1 36	1 52	2 08	2 24	2 40	2 56	3 12	3 28	3 44	4 00	4 10	
8 20	0 17	0 33	0 50	1 07	1 23	1 40	1 57	2 13	2 30	2 47	3 03	3 20	3 37	3 53	4 10	4 20	
8 40	0 17	0 35	0 52	1 09	1 27	1 44	2 01	2 19	2 38	2 53	3 11	3 28	3 45	4 03	4 20	4 30	
9 00	0 18	0 36	0 54	1 12	1 30	1 48	2 06	2 24	2 42	3 00	3 18	3 36	3 54	4 12	4 30	4 40	
9 20	0 19	0 37	0 56	1 15	1 33	1 52	2 11	2 29	2 48	3 07	3 25	3 44	4 03	4 21	4 40	4 50	
9 40	0 19	0 39	0 58	1 17	1 37	1 56	2 15	2 35	2 54	3 13	3 33	3 52	4 11	4 31	4 50	5 00	
10 00	0 20	0 40	1 00	1 20	1 40	2 00	2 20	2 40	3 00	3 20	3 40	4 00	4 20	4 40	5 00	5 10	
10 20	0 21	0 41	1 02	1 23	1 43	2 04	2 25	2 45	3 06	3 27	3 47	4 08	4 29	4 49	5 10	5 20	
10 40	0 21	0 43	1 04	1 25	1 47	2 08	2 29	2 51	3 12	3 33	3 55	4 16	4 37	4 59	5 20	5 30	

Range of tide, see footnote		Correction to height															
		Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.
0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	
1.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	
1.5	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.9	
2.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.9	1.0	1.1	1.2	
2.5	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.3	1.5	
3.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.9	1.0	1.2	1.4	1.6	1.8	
3.5	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.6	0.7	0.9	1.0	1.2	1.4	1.6	1.8	2.0	
4.0	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.7	0.8	1.0	1.1	1.3	1.6	1.8	2.0	2.2	
4.5	0.0	0.0	0.1	0.2	0.3	0.4	0.6	0.7	0.9	1.1	1.3	1.6	1.8	2.0	2.2	2.5	
5.0	0.0	0.1	0.1	0.2	0.3	0.5	0.6	0.8	1.0	1.2	1.5	1.7	2.0	2.2	2.5	2.8	
5.5	0.0	0.1	0.1	0.2	0.4	0.5	0.7	0.9	1.1	1.4	1.6	1.9	2.2	2.5	2.8	3.0	
6.0	0.0	0.1	0.1	0.3	0.4	0.6	0.8	1.0	1.2	1.5	1.8	2.1	2.4	2.7	2.9	3.2	
6.5	0.0	0.1	0.2	0.3	0.4	0.6	0.8	1.1	1.3	1.6	1.9	2.2	2.4	2.8	3.1	3.5	
7.0	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.2	1.4	1.8	2.1	2.4	2.8	3.1	3.4	3.8	
7.5	0.0	0.1	0.2	0.3	0.5	0.7	1.0	1.2	1.5	1.9	2.2	2.6	3.0	3.4	3.8	4.0	
8.0	0.0	0.1	0.2	0.3	0.5	0.8	1.0	1.3	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.2	
8.5	0.0	0.1	0.2	0.4	0.6	0.8	1.1	1.4	1.8	2.1	2.5	2.9	3.4	3.8	4.2	4.5	
9.0	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.5	1.9	2.2	2.7	3.1	3.6	4.0	4.5	4.8	
9.5	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.6	2.0	2.4	2.8	3.3	3.8	4.3	4.8	5.0	
10.0	0.0	0.1	0.2	0.4	0.7	1.0	1.3	1.7	2.1	2.5	3.0	3.5	4.0	4.5	5.0	5.2	
10.5	0.0	0.1	0.3	0.5	0.7	1.0	1.3	1.7	2.2	2.6	3.1	3.6	4.2	4.7	5.2	5.5	
11.0	0.0	0.1	0.3	0.5	0.7	1.1	1.4	1.8	2.3	2.8	3.3	3.8	4.4	4.9	5.5	5.8	
11.5	0.0	0.1	0.3	0.5	0.8	1.1	1.5	1.9	2.4	2.9	3.4	4.0	4.6	5.1	5.8	6.0	
12.0	0.0	0.1	0.3	0.5	0.8	1.1	1.5	2.0	2.5	3.0	3.6	4.1	4.8	5.4	6.0	6.2	
12.5	0.0	0.1	0.3	0.5	0.8	1.2	1.6	2.1	2.6	3.1	3.7	4.3	5.0	5.6	6.2	6.5	
13.0	0.0	0.1	0.3	0.6	0.9	1.2	1.7	2.2	2.7	3.2	3.9	4.5	5.1	5.8	6.5	6.8	
13.5	0.0	0.1	0.3	0.6	0.9	1.3	1.7	2.2	2.8	3.4	4.0	4.7	5.3	6.0	6.8	7.0	
14.0	0.0	0.2	0.3	0.6	0.9	1.3	1.8	2.3	2.9	3.5	4.2	4.8	5.5	6.3	7.0	7.2	
14.5	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.4	3.0	3.6	4.3	5.0	5.7	6.5	7.2	7.5	
15.0	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.5	3.1	3.8	4.4	5.2	5.9	6.7	7.5	7.8	
15.5	0.0	0.2	0.4	0.7	1.0	1.5	2.0	2.6	3.2	3.9	4.6	5.4	6.1	6.9	7.8	8.0	
16.0	0.0	0.2	0.4	0.7	1.1	1.5	2.1	2.6	3.3	4.0	4.7	5.5	6.3	7.2	8.0	8.2	
16.5	0.0	0.2	0.4	0.7	1.1	1.6	2.1	2.7	3.4	4.1	4.9	5.7	6.5	7.4	8.2	8.5	
17.0	0.0	0.2	0.4	0.7	1.1	1.6	2.2	2.8	3.5	4.2	5.0	5.9	6.7	7.6	8.5	8.8	
17.5	0.0	0.2	0.4	0.8	1.2	1.7	2.2	2.9	3.6	4.4	5.2	6.0	6.9	7.8	8.8	9.0	
18.0	0.0	0.2	0.4	0.8	1.2	1.7	2.3	3.0	3.7	4.5	5.3	6.2	7.1	8.1	9.0	9.2	
18.5	0.1	0.2	0.5	0.8	1.2	1.8	2.4	3.1	3.8	4.6	5.5	6.4	7.3	8.3	9.2	9.5	
19.0	0.1	0.2	0.5	0.8	1.3	1.8	2.4	3.1	3.9	4.8	5.6	6.6	7.5	8.5	9.5	9.8	
19.5	0.1	0.2	0.5	0.8	1.3	1.9	2.5	3.2	4.0	4.9	5.8	6.7	7.7	8.7	9.8	10.0	
20.0	0.1	0.2	0.5	0.9	1.3	1.9	2.6	3.3	4.1	5.0	5.9	6.9	7.9	9.0	10.0	10.5	

Obtain from the predictions the high water and low water, one of which is before and the other after the time for which the height is required. The difference between the times of occurrence of these tides is the duration of rise or fall, and the difference between their heights is the range of tide for the above table. Find the difference between the nearest high or low water and the time for which the height is required.

Enter the table with the duration of rise or fall, printed in heavy-faced type, which most nearly agrees with the actual value, and on that horizontal line find the time from the nearest high or low water which agrees most nearly with the corresponding actual difference. The correction sought is in the column directly below, on the line with the range of tide.

When the nearest tide is high water, subtract the correction.

When the nearest tide is low water, add the correction.

TABLE 3.—HEIGHT OF TIDE AT ANY TIME

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Time from the nearest high water or low water																	
Duration of rise or fall, see footnote																	
A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.
4 00	0 08	0 16	0 24	0 32	0 40	0 48	0 56	1 04	1 12	1 20	1 28	1 36	1 44	1 52	2 00	2 08	
4 20	0 09	0 17	0 26	0 35	0 43	0 52	1 01	1 09	1 18	1 27	1 35	1 44	1 53	2 01	2 10	2 19	
4 40	0 09	0 19	0 28	0 37	0 47	0 56	1 05	1 15	1 24	1 33	1 43	1 52	2 01	2 11	2 20	2 30	
5 00	0 10	0 20	0 30	0 40	0 50	1 00	1 10	1 20	1 30	1 40	1 50	2 00	2 10	2 20	2 30	2 40	
5 20	0 11	0 21	0 32	0 43	0 53	1 04	1 15	1 25	1 36	1 47	1 57	2 08	2 19	2 29	2 40	2 50	
5 40	0 11	0 23	0 34	0 45	0 57	1 08	1 19	1 31	1 42	1 53	2 05	2 16	2 27	2 39	2 50	3 00	
6 00	0 12	0 24	0 36	0 48	1 00	1 12	1 24	1 36	1 48	2 00	2 12	2 24	2 36	2 48	3 00	3 10	
6 20	0 13	0 25	0 38	0 51	1 03	1 16	1 29	1 41	1 54	2 07	2 19	2 32	2 45	2 57	3 10	3 20	
6 40	0 13	0 27	0 40	0 53	1 07	1 20	1 33	1 47	2 00	2 13	2 27	2 40	2 53	3 07	3 20	3 30	
7 00	0 14	0 28	0 42	0 56	1 10	1 24	1 38	1 52	2 06	2 20	2 34	2 48	3 02	3 16	3 30	3 40	
7 20	0 15	0 29	0 44	0 59	1 13	1 28	1 43	1 57	2 12	2 27	2 41	2 56	3 11	3 25	3 40	3 50	
7 40	0 15	0 31	0 46	1 01	1 17	1 32	1 47	2 03	2 18	2 33	2 49	3 04	3 19	3 35	3 50	4 00	
8 00	0 16	0 32	0 48	1 04	1 20	1 36	1 52	2 08	2 24	2 40	2 56	3 12	3 28	3 44	4 00	4 10	
8 20	0 17	0 33	0 50	1 07	1 23	1 40	1 57	2 13	2 30	2 47	3 03	3 20	3 37	3 53	4 10	4 20	
8 40	0 17	0 35	0 52	1 09	1 27	1 44	2 01	2 19	2 38	2 53	3 11	3 28	3 45	4 03	4 20	4 30	
9 00	0 18	0 36	0 54	1 12	1 30	1 48	2 06	2 24	2 42	3 00	3 18	3 36	3 54	4 12	4 30	4 40	
9 20	0 19	0 37	0 56	1 15	1 33	1 52	2 11	2 29	2 48	3 07	3 25	3 44	4 03	4 21	4 40	4 50	
9 40	0 19	0 39	0 58	1 17	1 37	1 56	2 15	2 35	2 54	3 13	3 33	3 52	4 11	4 31	4 50	5 00	
10 00	0 20	0 40	1 00	1 20	1 40	2 00	2 20	2 40	3 00	3 20	3 40	4 00	4 20	4 40	5 00	5 10	
10 20	0 21	0 41	1 02	1 23	1 43	2 04	2 25	2 45	3 06	3 27	3 47	4 08	4 29	4 49	5 10	5 20	
10 40	0 21	0 43	1 04	1 25	1 47	2 08	2 29	2 51	3 12	3 33	3 55	4 16	4 37	4 59	5 20	5 30	

Correction to height																	
Range of tide, see footnote																	
Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.
0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
1.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6
1.5	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.8	0.8
2.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.6	0.7	0.9	1.0	1.1	1.2
2.5	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.2	1.3	1.5
3.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.4	1.6	1.8	2.0
3.5	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.6	0.7	0.9	1.0	1.2	1.4	1.6	1.8	2.0	2.2
4.0	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.7	0.8	1.0	1.1	1.3	1.6	1.8	2.0	2.2	2.5
4.5	0.0	0.0	0.1	0.2	0.3	0.4	0.6	0.7	0.9	1.1	1.3	1.6	1.9	2.2	2.5	2.8	3.0
5.0	0.0	0.1	0.1	0.2	0.3	0.5	0.6	0.8	1.0	1.2	1.5	1.7	2.0	2.2	2.5	2.8	3.2
5.5	0.0	0.1	0.1	0.2	0.3	0.5	0.7	0.9	1.1	1.4	1.6	1.9	2.2	2.6	2.9	3.2	3.5
6.0	0.0	0.1	0.1	0.2	0.3	0.5	0.8	1.0	1.2	1.5	1.8	2.1	2.4	2.8	3.1	3.5	3.8
6.5	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.1	1.3	1.6	1.9	2.2	2.6	3.0	3.4	3.8	4.0
7.0	0.0	0.1	0.2	0.3	0.5	0.7	1.0	1.2	1.4	1.8	2.1	2.4	2.8	3.1	3.5	3.8	4.2
7.5	0.0	0.1	0.2	0.3	0.5	0.7	1.0	1.2	1.5	1.9	2.2	2.6	3.0	3.4	3.8	4.0	4.5
8.0	0.0	0.1	0.2	0.3	0.5	0.8	1.0	1.3	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.5	5.0
8.5	0.0	0.1	0.2	0.4	0.6	0.8	1.1	1.4	1.8	2.1	2.5	2.9	3.4	3.8	4.3	4.8	5.0
9.0	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.5	1.9	2.2	2.7	3.1	3.6	4.0	4.5	5.0	5.5
9.5	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.6	2.0	2.4	2.8	3.3	3.8	4.3	4.8	5.0	6.0
10.0	0.0	0.1	0.2	0.4	0.7	1.0	1.3	1.7	2.1	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.2
10.5	0.0	0.1	0.3	0.5	0.7	1.0	1.3	1.7	2.2	2.6	3.1	3.6	4.2	4.7	5.2	5.8	6.5
11.0	0.0	0.1	0.3	0.5	0.7	1.1	1.4	1.8	2.3	2.8	3.3	3.8	4.4	4.9	5.5	6.0	7.0
11.5	0.0	0.1	0.3	0.5	0.8	1.1	1.5	1.9	2.4	2.9	3.4	4.0	4.6	5.1	5.8	6.0	7.0
12.0	0.0	0.1	0.3	0.5	0.8	1.1	1.5	2.0	2.5	3.0	3.6	4.1	4.8	5.4	6.0	6.2	7.5
12.5	0.0	0.1	0.3	0.5	0.8	1.2	1.6	2.1	2.6	3.1	3.7	4.3	5.0	5.6	6.2	6.5	8.0
13.0	0.0	0.1	0.3	0.6	0.9	1.2	1.7	2.2	2.7	3.2	3.9	4.5	5.1	5.8	6.5	6.8	8.2
13.5	0.0	0.1	0.3	0.6	0.9	1.3	1.7	2.2	2.8	3.4	4.0	4.7	5.3	6.0	6.8	7.0	8.5
14.0	0.0	0.2	0.3	0.6	0.9	1.3	1.8	2.3	2.9	3.5	4.2	4.8	5.5	6.3	7.0	7.5	9.0
14.5	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.4	3.0	3.6	4.3	5.0	5.7	6.5	7.2	7.5	9.5
15.0	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.5	3.1	3.8	4.4	5.2	5.9	6.7	7.5	7.8	10.0
15.5	0.0	0.2	0.4	0.7	1.0	1.5	2.0	2.6	3.2	3.9	4.6	5.4	6.1	6.9	7.8	8.0	10.5
16.0	0.0	0.2	0.4	0.7	1.1	1.5	2.1	2.6	3.3	4.0	4.7	5.5	6.3	7.2	8.0	8.2	11.0
16.5	0.0	0.2	0.4	0.7	1.1	1.6	2.1	2.7	3.4	4.1	4.9	5.7	6.5	7.4	8.2	8.5	11.5
17.0	0.0	0.2	0.4	0.7	1.1	1.6	2.2	2.8	3.5	4.2	5.0	5.9	6.7	7.6	8.5	8.8	12.0
17.5	0.0	0.2	0.4	0.8	1.2	1.7	2.2	2.9	3.6	4.4	5.2	6.0	6.9	7.8	8.8	9.0	12.5
18.0	0.0	0.2	0.4	0.8	1.2	1.7	2.3	3.0	3.7	4.5	5.3	6.2	7.1	8.1	9.0	9.2	13.0
18.5	0.1	0.2	0.5	0.8	1.2	1.8	2.4	3.1	3.8	4.6	5.5	6.4	7.3	8.3	9.2	9.5	13.5
19.0	0.1	0.2	0.5	0.8	1.3	1.8	2.4	3.1	3.9	4.8	5.6	6.6	7.5	8.5	9.5	9.8	14.0
19.5	0.1	0.2	0.5	0.8	1.3	1.9	2.5	3.2	4.0	4.9	5.8	6.7	7.7	8.7	9.8	10.0	14.5
20.0	0.1	0.2	0.5	0.9	1.3	1.9	2.6	3.3	4.1	5.0	5.9	6.9	7.9	9.0	10.0	10.5	15.0

Obtain from the predictions the high water and low water, one of which is before and the other after the time for which the height is required. The difference between the times of occurrence of these tides is the duration of rise or fall, and the difference between their heights is the range of tide for the above table. Find the difference between the nearest high or low water and the time for which the height is required.

Enter the table with the duration of rise or fall, printed in heavy-faced type, which most nearly agrees with the actual value, and on that horizontal line find the time from the nearest high or low water which agrees most nearly with the corresponding actual difference. The correction sought is in the column directly below, on the line with the range of tide.

When the nearest tide is high water, subtract the correction.

When the nearest tide is low water, add the correction.

TABLE 3.—HEIGHT OF TIDE AT ANY TIME

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Time from the nearest high water or low water																	
Duration of rise or fall, see footnote																	
A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.
4 00	0 08	0 16	0 24	0 32	0 40	0 48	0 56	1 04	1 12	1 20	1 28	1 36	1 44	1 52	2 00	2 08	
4 20	0 09	0 17	0 26	0 35	0 43	0 52	1 01	1 09	1 18	1 27	1 35	1 44	1 53	2 01	2 10	2 19	
4 40	0 09	0 19	0 28	0 37	0 47	0 56	1 05	1 15	1 24	1 33	1 43	1 52	2 01	2 11	2 20	2 30	
5 00	0 10	0 20	0 30	0 40	0 50	1 00	1 10	1 20	1 30	1 40	1 50	2 00	2 10	2 20	2 30	2 40	
5 20	0 11	0 21	0 32	0 43	0 53	1 04	1 15	1 25	1 36	1 47	1 57	2 08	2 19	2 29	2 40	2 50	
5 40	0 11	0 23	0 34	0 45	0 57	1 08	1 19	1 31	1 42	1 53	2 05	2 16	2 27	2 39	2 50	3 00	
6 00	0 12	0 24	0 36	0 48	1 00	1 12	1 24	1 36	1 48	2 00	2 12	2 24	2 36	2 48	3 00	3 10	
6 20	0 13	0 25	0 38	0 51	1 03	1 16	1 29	1 41	1 54	2 07	2 19	2 32	2 45	2 57	3 10	3 20	
6 40	0 13	0 27	0 40	0 53	1 07	1 20	1 33	1 47	2 00	2 13	2 27	2 40	2 53	3 07	3 20	3 30	
7 00	0 14	0 28	0 42	0 56	1 10	1 24	1 38	1 52	2 08	2 20	2 34	2 48	3 02	3 16	3 30	3 40	
7 20	0 15	0 29	0 44	0 59	1 13	1 28	1 43	1 57	2 12	2 27	2 41	2 56	3 11	3 25	3 40	3 50	
7 40	0 15	0 31	0 46	1 01	1 17	1 32	1 47	2 03	2 18	2 33	2 49	3 04	3 19	3 35	3 50	4 00	
8 00	0 16	0 32	0 48	1 04	1 20	1 36	1 52	2 08	2 24	2 40	2 56	3 12	3 28	3 44	4 00	4 10	
8 20	0 17	0 33	0 50	1 07	1 23	1 40	1 57	2 13	2 30	2 47	3 03	3 20	3 37	3 53	4 10	4 20	
8 40	0 17	0 35	0 52	1 09	1 27	1 44	2 01	2 19	2 38	2 53	3 11	3 28	3 45	4 03	4 20	4 30	
9 00	0 18	0 36	0 54	1 12	1 30	1 48	2 06	2 24	2 42	3 00	3 18	3 36	3 54	4 12	4 30	4 40	
9 20	0 19	0 37	0 56	1 15	1 33	1 52	2 11	2 29	2 48	3 07	3 25	3 44	4 03	4 21	4 40	4 50	
9 40	0 19	0 39	0 58	1 17	1 37	1 56	2 15	2 35	2 54	3 13	3 33	3 52	4 11	4 31	4 50	5 00	
10 00	0 20	0 40	1 00	1 20	1 40	2 00	2 20	2 40	3 00	3 20	3 40	4 00	4 20	4 40	5 00	5 10	
10 20	0 21	0 41	1 02	1 23	1 43	2 04	2 25	2 45	3 06	3 27	3 47	4 08	4 29	4 49	5 10	5 20	
10 40	0 21	0 43	1 04	1 25	1 47	2 08	2 29	2 51	3 12	3 33	3 55	4 16	4 37	4 59	5 20	5 30	

Correction to height																	
Range of tide, see footnote																	
Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.
0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5
1.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.7
1.5	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.9
2.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.9	1.0	1.1	1.2
2.5	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.3	1.5	1.6
3.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.9	1.0	1.2	1.4	1.6	1.8	2.0
3.5	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.6	0.7	0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2
4.0	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.7	0.8	1.0	1.1	1.3	1.6	1.8	2.0	2.2	2.5
4.5	0.0	0.0	0.1	0.2	0.3	0.4	0.6	0.7	0.9	1.1	1.3	1.6	1.9	2.0	2.2	2.5	2.8
5.0	0.0	0.1	0.1	0.2	0.3	0.5	0.6	0.8	1.0	1.2	1.5	1.7	2.0	2.2	2.5	2.8	3.0
5.5	0.0	0.1	0.1	0.2	0.4	0.5	0.7	0.9	1.1	1.4	1.6	1.9	2.2	2.5	2.8	3.0	3.2
6.0	0.0	0.1	0.1	0.3	0.4	0.6	0.8	1.0	1.2	1.5	1.8	2.1	2.4	2.7	2.9	3.2	3.5
6.5	0.0	0.1	0.2	0.3	0.4	0.6	0.8	1.1	1.3	1.6	1.9	2.2	2.6	2.9	3.1	3.5	3.8
7.0	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.2	1.4	1.8	2.1	2.4	2.8	3.1	3.5	3.8	4.0
7.5	0.0	0.1	0.2	0.3	0.5	0.7	1.0	1.2	1.5	1.9	2.2	2.6	3.0	3.4	3.8	4.0	4.5
8.0	0.0	0.1	0.2	0.3	0.5	0.8	1.0	1.3	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.5	5.0
8.5	0.0	0.1	0.2	0.4	0.6	0.8	1.1	1.4	1.8	2.1	2.5	2.9	3.4	3.8	4.3	4.8	5.0
9.0	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.5	1.9	2.2	2.7	3.1	3.6	4.0	4.5	5.0	5.5
9.5	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.6	2.0	2.4	2.8	3.3	3.8	4.3	4.8	5.0	6.0
10.0	0.0	0.1	0.2	0.4	0.7	1.0	1.3	1.7	2.1	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.2
10.5	0.0	0.1	0.3	0.5	0.7	1.0	1.3	1.7	2.2	2.6	3.1	3.6	4.2	4.7	5.2	5.5	6.5
11.0	0.0	0.1	0.3	0.5	0.7	1.1	1.4	1.8	2.3	2.8	3.3	3.8	4.4	4.9	5.5	6.0	7.0
11.5	0.0	0.1	0.3	0.5	0.8	1.1	1.5	1.9	2.4	2.9	3.4	4.0	4.6	5.1	5.8	6.0	7.2
12.0	0.0	0.1	0.3	0.5	0.8	1.1	1.5	2.0	2.5	3.0	3.6	4.1	4.8	5.4	6.0	6.5	7.5
12.5	0.0	0.1	0.3	0.5	0.8	1.2	1.6	2.1	2.6	3.1	3.7	4.3	5.0	5.6	6.2	6.5	7.5
13.0	0.0	0.1	0.3	0.6	0.9	1.2	1.7	2.2	2.7	3.2	3.9	4.5	5.1	5.8	6.5	6.5	7.8
13.5	0.0	0.1	0.3	0.6	0.9	1.3	1.7	2.2	2.8	3.4	4.0	4.7	5.3	6.0	6.8	6.8	8.0
14.0	0.0	0.2	0.3	0.6	0.9	1.3	1.8	2.3	2.9	3.5	4.2	4.8	5.5	6.3	7.0	7.0	8.2
14.5	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.4	3.0	3.6	4.3	5.0	5.7	6.5	7.2	7.2	8.5
15.0	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.5	3.1	3.8	4.4	5.2	5.9	6.7	7.5	7.5	8.8
15.5	0.0	0.2	0.4	0.7	1.0	1.5	2.0	2.6	3.2	3.9	4.6	5.4	6.1	6.9	7.8	7.8	9.0
16.0	0.0	0.2	0.4	0.7	1.1	1.5	2.1	2.6	3.3	4.0	4.7	5.5	6.3	7.2	8.0	8.0	9.2
16.5	0.0	0.2	0.4	0.7	1.1	1.6	2.1	2.7	3.4	4.1	4.9	5.7	6.5	7.4	8.2	8.2	9.5
17.0	0.0	0.2	0.4	0.7	1.1	1.6	2.2	2.8	3.5	4.2	5.0	5.9	6.7	7.6	8.5	8.5	9.8
17.5	0.0	0.2	0.4	0.8	1.2	1.7	2.2	2.9	3.6	4.4	5.2	6.0	6.9	7.8	8.8	8.8	10.0
18.0	0.0	0.2	0.4	0.8	1.2	1.7	2.3	3.0	3.7	4.5	5.3	6.2	7.1	8.1	9.0	9.0	10.0
18.5	0.1	0.2	0.5	0.8	1.2	1.8	2.4	3.1	3.8	4.6	5.5	6.4	7.3	8.3	9.2	9.2	10.0
19.0	0.1	0.2	0.5	0.8	1.3	1.8	2.4	3.1	3.9	4.8	5.6	6.6	7.5	8.5	9.5	9.5	10.0
19.5	0.1	0.2	0.5	0.8	1.3	1.9	2.5	3.2	4.0	4.9	5.8	6.7	7.7	8.7	9.8	9.8	10.0
20.0	0.1	0.2	0.5	0.9	1.3	1.9	2.6	3.3	4.1	5.0	5.9	6.9	7.9	9.0	10.0	10.0	10.0

Obtain from the predictions the high water and low water, one of which is before and the other after the time for which the height is required. The difference between the times of occurrence of these tides is the duration of rise or fall, and the difference between their heights is the range of tide for the above table. Find the difference between the nearest high or low water and the time for which the height is required.

Enter the table with the duration of rise or fall, printed in heavy-faced type, which most nearly agrees with the actual value, and on that horizontal line find the time from the nearest high or low water which agrees most nearly with the corresponding actual difference. The correction sought is in the column directly below, on the line with the range of tide.

When the nearest tide is high water, subtract the correction.

When the nearest tide is low water, add the correction.

TABLE 3.—HEIGHT OF TIDE AT ANY TIME

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Time from the nearest high water or low water																
h. m.																
4 00	0 08	0 16	0 24	0 32	0 40	0 48	0 56	1 04	1 12	1 20	1 28	1 36	1 44	1 52	2 00	2 08
4 20	0 09	0 17	0 26	0 35	0 43	0 52	1 01	1 09	1 18	1 27	1 35	1 44	1 53	2 01	2 10	2 19
4 40	0 09	0 19	0 28	0 37	0 47	0 56	1 05	1 15	1 24	1 33	1 43	1 52	2 01	2 11	2 20	2 30
5 00	0 10	0 20	0 30	0 40	0 50	1 00	1 10	1 20	1 30	1 40	1 50	2 00	2 10	2 20	2 30	2 40
5 20	0 11	0 21	0 32	0 43	0 53	1 04	1 15	1 25	1 36	1 47	1 57	2 08	2 19	2 29	2 40	2 50
5 40	0 11	0 23	0 34	0 45	0 57	1 08	1 19	1 31	1 42	1 53	2 05	2 16	2 27	2 39	2 50	3 00
6 00	0 12	0 24	0 36	0 48	1 00	1 12	1 24	1 36	1 48	2 00	2 12	2 24	2 36	2 48	3 00	3 10
6 20	0 13	0 25	0 38	0 51	1 03	1 16	1 29	1 41	1 54	2 07	2 19	2 32	2 45	2 57	3 10	3 20
6 40	0 13	0 27	0 40	0 53	1 07	1 20	1 33	1 47	2 00	2 13	2 27	2 40	2 53	3 07	3 20	3 30
7 00	0 14	0 28	0 42	0 56	1 10	1 24	1 38	1 52	2 06	2 20	2 34	2 48	3 02	3 16	3 30	3 40
7 20	0 15	0 29	0 44	0 59	1 13	1 28	1 43	1 57	2 12	2 27	2 41	2 56	3 11	3 25	3 40	3 50
7 40	0 15	0 31	0 46	1 01	1 17	1 32	1 47	2 03	2 18	2 33	2 49	3 04	3 19	3 35	3 50	4 00
8 00	0 16	0 32	0 48	1 04	1 20	1 36	1 52	2 08	2 24	2 40	2 56	3 12	3 28	3 44	4 00	4 10
8 20	0 17	0 33	0 50	1 07	1 23	1 40	1 57	2 13	2 30	2 47	3 03	3 20	3 37	3 53	4 10	4 20
8 40	0 17	0 35	0 52	1 09	1 27	1 44	2 01	2 19	2 38	2 53	3 11	3 28	3 45	4 03	4 20	4 30
9 00	0 18	0 36	0 54	1 12	1 30	1 48	2 06	2 24	2 42	3 00	3 18	3 36	3 54	4 12	4 30	4 40
9 20	0 19	0 37	0 56	1 15	1 33	1 52	2 11	2 29	2 48	3 07	3 25	3 44	4 03	4 21	4 40	4 50
9 40	0 19	0 39	0 58	1 17	1 37	1 56	2 15	2 35	2 54	3 13	3 33	3 52	4 11	4 31	4 50	5 00
10 00	0 20	0 40	1 00	1 20	1 40	2 00	2 20	2 40	3 00	3 20	3 40	4 00	4 20	4 40	5 00	5 10
10 20	0 21	0 41	1 02	1 23	1 43	2 04	2 25	2 45	3 06	3 27	3 47	4 08	4 29	4 49	5 10	5 20
10 40	0 21	0 43	1 04	1 25	1 47	2 08	2 29	2 51	3 12	3 33	3 55	4 16	4 37	4 59	5 20	5 30

Correction to height																
Ft.																
0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
1.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.7
1.5	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.9
2.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1
2.5	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2
3.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.3	1.5	1.6
3.5	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.6	0.7	0.9	1.0	1.2	1.4	1.6	1.8	2.0
4.0	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.7	0.8	1.0	1.1	1.3	1.6	1.8	2.0	2.2
4.5	0.0	0.0	0.1	0.2	0.3	0.4	0.6	0.7	0.9	1.1	1.3	1.6	1.8	2.0	2.2	2.5
5.0	0.0	0.1	0.1	0.2	0.3	0.5	0.6	0.8	1.0	1.2	1.5	1.7	2.0	2.2	2.5	2.8
5.5	0.0	0.1	0.1	0.2	0.4	0.5	0.7	0.9	1.1	1.4	1.6	1.9	2.2	2.5	2.8	3.0
6.0	0.0	0.1	0.1	0.3	0.4	0.6	0.8	1.0	1.2	1.5	1.8	2.1	2.4	2.7	3.0	3.2
6.5	0.0	0.1	0.2	0.3	0.4	0.6	0.8	1.1	1.3	1.6	1.9	2.2	2.6	2.9	3.1	3.5
7.0	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.2	1.4	1.8	2.1	2.4	2.8	3.1	3.5	3.8
7.5	0.0	0.1	0.2	0.3	0.5	0.7	1.0	1.2	1.5	1.9	2.2	2.6	3.0	3.4	3.8	4.0
8.0	0.0	0.1	0.2	0.3	0.5	0.8	1.0	1.3	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.2
8.5	0.0	0.1	0.2	0.4	0.6	0.8	1.1	1.4	1.8	2.1	2.5	2.9	3.4	3.8	4.2	4.5
9.0	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.5	1.9	2.2	2.7	3.1	3.6	4.0	4.5	4.8
9.5	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.6	2.0	2.4	2.8	3.3	3.8	4.3	4.8	5.0
10.0	0.0	0.1	0.2	0.4	0.7	1.0	1.3	1.7	2.1	2.5	3.0	3.5	4.0	4.5	5.0	5.2
10.5	0.0	0.1	0.3	0.5	0.7	1.0	1.3	1.7	2.2	2.6	3.1	3.6	4.2	4.7	5.2	5.5
11.0	0.0	0.1	0.3	0.5	0.7	1.1	1.4	1.8	2.3	2.8	3.2	3.8	4.4	4.9	5.5	5.8
11.5	0.0	0.1	0.3	0.5	0.8	1.1	1.5	1.9	2.4	2.9	3.4	4.0	4.6	5.1	5.8	6.0
12.0	0.0	0.1	0.3	0.5	0.8	1.1	1.5	2.0	2.5	3.0	3.5	4.1	4.8	5.4	6.0	6.2
12.5	0.0	0.1	0.3	0.5	0.8	1.2	1.6	2.1	2.6	3.1	3.7	4.3	5.0	5.6	6.2	6.5
13.0	0.0	0.1	0.3	0.6	0.9	1.2	1.7	2.2	2.7	3.2	3.9	4.5	5.1	5.8	6.5	6.8
13.5	0.0	0.1	0.3	0.6	0.9	1.3	1.7	2.2	2.8	3.4	4.0	4.7	5.3	6.0	6.8	7.0
14.0	0.0	0.2	0.3	0.6	0.9	1.3	1.8	2.3	2.9	3.5	4.2	4.8	5.5	6.3	7.0	7.2
14.5	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.4	3.0	3.6	4.3	5.0	5.7	6.5	7.2	7.5
15.0	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.5	3.1	3.8	4.4	5.2	5.9	6.7	7.5	7.8
15.5	0.0	0.2	0.4	0.7	1.0	1.5	2.0	2.6	3.2	3.9	4.6	5.4	6.1	6.9	7.8	8.0
16.0	0.0	0.2	0.4	0.7	1.1	1.5	2.1	2.6	3.3	4.0	4.7	5.5	6.3	7.2	8.0	8.2
16.5	0.0	0.2	0.4	0.7	1.1	1.6	2.1	2.7	3.4	4.1	4.9	5.7	6.5	7.4	8.2	8.5
17.0	0.0	0.2	0.4	0.7	1.1	1.6	2.2	2.8	3.5	4.2	5.0	5.9	6.7	7.6	8.5	8.8
17.5	0.0	0.2	0.4	0.8	1.2	1.7	2.2	2.9	3.6	4.4	5.2	6.0	6.9	7.8	8.8	9.0
18.0	0.0	0.2	0.4	0.8	1.2	1.7	2.3	3.0	3.7	4.5	5.3	6.2	7.1	8.1	9.0	9.2
18.5	0.1	0.2	0.5	0.8	1.2	1.8	2.4	3.1	3.8	4.6	5.5	6.4	7.3	8.3	9.2	9.5
19.0	0.1	0.2	0.5	0.8	1.3	1.8	2.4	3.1	3.9	4.8	5.6	6.6	7.5	8.5	9.5	9.8
19.5	0.1	0.2	0.5	0.8	1.3	1.9	2.5	3.2	4.0	4.9	5.8	6.7	7.7	8.7	9.8	10.0
20.0	0.1	0.2	0.5	0.9	1.3	1.9	2.6	3.3	4.1	5.0	5.9	6.9	7.9	9.0	10.0	10.5

Obtain from the predictions the high water and low water, one of which is before and the other after the time for which the height is required. The difference between the times of occurrence of these tides is the duration of rise or fall, and the difference between their heights is the range of tide for the above table. Find the difference between the nearest high or low water and the time for which the height is required.

Enter the table with the duration of rise or fall, printed in heavy-faced type, which most nearly agrees with the actual value, and on that horizontal line find the time from the nearest high or low water which agrees most nearly with the corresponding actual difference. The correction sought is in the column directly below, on the line with the range of tide.

When the nearest tide is high water, subtract the correction.
When the nearest tide is low water, add the correction.

TABLE 3.—HEIGHT OF TIDE AT ANY TIME

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Duration of rise or fall, see footnote		Time from the nearest high water or low water															
		A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.
4 00	0 08	0 16	0 24	0 32	0 40	0 48	0 56	1 04	1 12	1 20	1 28	1 36	1 44	1 52	2 00	2 08	
4 20	0 09	0 17	0 26	0 35	0 43	0 52	1 01	1 09	1 18	1 27	1 35	1 44	1 53	2 01	2 10	2 19	
4 40	0 09	0 19	0 28	0 37	0 47	0 56	1 05	1 15	1 24	1 33	1 43	1 52	2 01	2 11	2 20	2 30	
5 00	0 10	0 20	0 30	0 40	0 50	1 00	1 10	1 20	1 30	1 40	1 50	2 00	2 10	2 20	2 30	2 40	
5 20	0 11	0 21	0 32	0 43	0 53	1 04	1 15	1 25	1 36	1 47	1 57	2 08	2 19	2 29	2 40	2 50	
5 40	0 11	0 23	0 34	0 45	0 57	1 08	1 19	1 31	1 42	1 53	2 05	2 16	2 27	2 39	2 50	3 00	
6 00	0 12	0 24	0 36	0 48	0 60	1 12	1 24	1 36	1 48	2 00	2 12	2 24	2 36	2 48	3 00	3 10	
6 20	0 13	0 25	0 38	0 51	1 03	1 16	1 29	1 41	1 54	2 07	2 19	2 32	2 45	2 57	3 10	3 20	
6 40	0 13	0 27	0 40	0 53	1 07	1 20	1 33	1 47	2 00	2 13	2 27	2 40	2 53	3 07	3 20	3 30	
7 00	0 14	0 28	0 42	0 56	1 10	1 24	1 38	1 52	2 06	2 20	2 34	2 48	3 02	3 16	3 30	3 40	
7 20	0 15	0 29	0 44	0 59	1 13	1 28	1 43	1 57	2 12	2 27	2 41	2 56	3 11	3 25	3 40	3 50	
7 40	0 15	0 31	0 46	1 01	1 17	1 32	1 47	2 03	2 18	2 33	2 49	3 04	3 19	3 35	3 50	4 00	
8 00	0 16	0 32	0 48	1 04	1 20	1 36	1 52	2 08	2 24	2 40	2 56	3 12	3 28	3 44	4 00	4 10	
8 20	0 17	0 33	0 50	1 07	1 23	1 40	1 57	2 13	2 30	2 47	3 03	3 20	3 37	3 53	4 10	4 20	
8 40	0 17	0 35	0 52	1 09	1 27	1 44	2 01	2 19	2 38	2 53	3 11	3 28	3 45	4 03	4 20	4 30	
9 00	0 18	0 36	0 54	1 12	1 30	1 48	2 06	2 24	2 42	3 00	3 18	3 36	3 54	4 12	4 30	4 40	
9 20	0 19	0 37	0 56	1 15	1 33	1 52	2 11	2 29	2 48	3 07	3 25	3 44	4 03	4 21	4 40	4 50	
9 40	0 19	0 39	0 58	1 17	1 37	1 56	2 15	2 35	2 54	3 13	3 33	3 52	4 11	4 31	4 50	5 00	
10 00	0 20	0 40	1 00	1 20	1 40	2 00	2 20	2 40	3 00	3 20	3 40	4 00	4 20	4 40	5 00	5 10	
10 20	0 21	0 41	1 02	1 23	1 43	2 04	2 25	2 45	3 06	3 27	3 47	4 08	4 29	4 49	5 10	5 20	
10 40	0 21	0 43	1 04	1 25	1 47	2 08	2 29	2 51	3 12	3 33	3 55	4 16	4 37	4 59	5 20	5 30	

Range of tide, see footnote		Correction to height															
		Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.
0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5
1.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.8
1.5	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.5	0.6	0.7	0.9	1.0	1.1
2.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.2	1.3
2.5	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.3	1.5	1.6
3.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.9	1.0	1.2	1.4	1.6	1.8	2.0
3.5	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.6	0.7	0.9	1.0	1.2	1.4	1.6	1.8	2.0	2.2
4.0	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.7	0.8	1.0	1.1	1.3	1.6	1.8	2.0	2.2	2.5
4.5	0.0	0.0	0.1	0.2	0.3	0.4	0.6	0.7	0.9	1.1	1.3	1.6	1.9	2.2	2.5	2.8	3.0
5.0	0.0	0.1	0.1	0.2	0.3	0.5	0.6	0.8	1.0	1.2	1.5	1.7	2.0	2.2	2.6	2.9	3.2
5.5	0.0	0.1	0.1	0.2	0.3	0.5	0.7	0.9	1.1	1.4	1.6	1.9	2.2	2.6	2.9	3.2	3.5
6.0	0.0	0.1	0.1	0.2	0.3	0.5	0.8	1.0	1.2	1.5	1.8	2.1	2.4	2.8	3.1	3.5	3.8
6.5	0.0	0.1	0.2	0.3	0.5	0.7	0.8	1.1	1.3	1.6	1.9	2.2	2.6	2.9	3.4	3.8	4.0
7.0	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.2	1.4	1.8	2.1	2.4	2.8	3.1	3.5	3.8	4.2
7.5	0.0	0.1	0.2	0.3	0.5	0.7	1.0	1.2	1.5	1.9	2.2	2.6	3.0	3.4	3.8	4.3	4.5
8.0	0.0	0.1	0.2	0.3	0.5	0.8	1.0	1.3	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.5	4.8
8.5	0.0	0.1	0.2	0.4	0.6	0.8	1.1	1.4	1.8	2.1	2.5	2.9	3.4	3.8	4.3	4.8	5.0
9.0	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.5	1.9	2.2	2.7	3.1	3.6	4.0	4.5	5.0	5.2
9.5	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.6	2.0	2.4	2.8	3.3	3.8	4.3	4.8	5.0	5.5
10.0	0.0	0.1	0.2	0.4	0.7	1.0	1.3	1.7	2.1	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
10.5	0.0	0.1	0.3	0.5	0.7	1.0	1.3	1.7	2.2	2.6	3.1	3.6	4.2	4.7	5.2	5.5	6.0
11.0	0.0	0.1	0.3	0.5	0.7	1.1	1.4	1.8	2.3	2.8	3.3	3.8	4.4	4.9	5.5	6.0	6.5
11.5	0.0	0.1	0.3	0.5	0.8	1.1	1.5	1.9	2.4	2.9	3.4	4.0	4.6	5.1	5.8	6.0	6.5
12.0	0.0	0.1	0.3	0.5	0.8	1.1	1.5	2.0	2.5	3.0	3.6	4.1	4.8	5.4	6.0	6.2	6.5
12.5	0.0	0.1	0.3	0.5	0.8	1.2	1.6	2.1	2.6	3.1	3.7	4.3	5.0	5.6	6.2	6.5	7.0
13.0	0.0	0.1	0.3	0.6	0.9	1.2	1.7	2.2	2.7	3.2	3.9	4.5	5.1	5.8	6.5	6.8	7.0
13.5	0.0	0.1	0.3	0.6	0.9	1.3	1.7	2.2	2.8	3.4	4.0	4.7	5.3	6.0	6.8	7.0	7.5
14.0	0.0	0.2	0.3	0.6	0.9	1.3	1.8	2.3	2.9	3.5	4.2	4.8	5.5	6.3	7.0	7.5	8.0
14.5	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.4	3.0	3.6	4.3	5.0	5.7	6.5	7.2	7.5	8.0
15.0	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.5	3.1	3.8	4.4	5.2	5.9	6.7	7.5	8.0	8.5
15.5	0.0	0.2	0.4	0.7	1.0	1.5	2.0	2.6	3.2	3.9	4.6	5.4	6.1	6.9	7.8	8.0	8.5
16.0	0.0	0.2	0.4	0.7	1.1	1.5	2.1	2.6	3.3	4.0	4.7	5.5	6.3	7.2	8.0	8.5	9.0
16.5	0.0	0.2	0.4	0.7	1.1	1.6	2.1	2.7	3.4	4.1	4.9	5.7	6.5	7.4	8.2	8.5	9.0
17.0	0.0	0.2	0.4	0.7	1.1	1.6	2.2	2.8	3.5	4.2	5.0	5.9	6.7	7.6	8.5	8.8	9.0
17.5	0.0	0.2	0.4	0.8	1.2	1.7	2.2	2.9	3.6	4.4	5.2	6.0	6.9	7.8	8.8	9.0	9.5
18.0	0.0	0.2	0.4	0.8	1.2	1.7	2.3	3.0	3.7	4.5	5.3	6.2	7.1	8.1	9.0	9.5	10.0
18.5	0.1	0.2	0.5	0.8	1.2	1.8	2.4	3.1	3.8	4.6	5.5	6.4	7.3	8.3	9.2	9.5	10.0
19.0	0.1	0.2	0.5	0.8	1.3	1.8	2.4	3.1	3.9	4.8	5.6	6.6	7.5	8.5	9.5	9.8	10.0
19.5	0.1	0.2	0.5	0.8	1.3	1.9	2.5	3.2	4.0	4.9	5.8	6.7	7.7	8.7	9.8	10.0	10.5
20.0	0.1	0.2	0.5	0.9	1.3	1.9	2.6	3.3	4.1	5.0	5.9	6.9	7.9	9.0	10.0	10.5	11.0

Obtain from the predictions the high water and low water, one of which is before and the other after the time for which the height is required. The difference between the times of occurrence of these tides is the duration of rise or fall, and the difference between their heights is the range of tide for the above table. Find the difference between the nearest high or low water and the time for which the height is required.

Enter the table with the duration of rise or fall, printed in heavy-faced type, which most nearly agrees with the actual value, and on that horizontal line find the time from the nearest high or low water which agrees most nearly with the corresponding actual difference. The correction sought is in the column directly below, on the line with the range of tide.

When the nearest tide is high water, subtract the correction.

When the nearest tide is low water, add the correction.

TABLE 3.—HEIGHT OF TIDE AT ANY TIME

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		Time from the nearest high water or low water															
		A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.	A. m.
Duration of rise or fall, see footnote	4 00	0 08	0 16	0 24	0 32	0 40	0 48	0 56	1 04	1 12	1 20	1 28	1 36	1 44	1 52	2 00	
	4 20	0 09	0 17	0 26	0 35	0 43	0 52	1 01	1 09	1 18	1 27	1 35	1 44	1 53	2 01	2 10	
	4 40	0 09	0 19	0 28	0 37	0 47	0 56	1 05	1 15	1 24	1 33	1 43	1 52	2 01	2 11	2 20	
	5 00	0 10	0 20	0 30	0 40	0 50	1 00	1 10	1 20	1 30	1 40	1 50	2 00	2 10	2 20	2 30	
	5 20	0 11	0 21	0 32	0 43	0 53	1 04	1 15	1 25	1 36	1 47	1 57	2 08	2 19	2 29	2 40	
	5 40	0 11	0 23	0 34	0 45	0 57	1 08	1 19	1 31	1 42	1 53	2 05	2 16	2 27	2 39	2 50	
	6 00	0 12	0 24	0 36	0 48	1 00	1 12	1 24	1 36	1 48	2 00	2 12	2 24	2 36	2 48	3 00	
	6 20	0 13	0 25	0 38	0 51	1 03	1 16	1 29	1 41	1 54	2 07	2 19	2 32	2 45	2 57	3 10	
	6 40	0 13	0 27	0 40	0 53	1 07	1 20	1 33	1 47	2 00	2 13	2 27	2 40	2 53	3 07	3 20	
	7 00	0 14	0 28	0 42	0 56	1 10	1 24	1 38	1 52	2 06	2 20	2 34	2 48	3 02	3 16	3 30	
	7 20	0 15	0 29	0 44	0 59	1 13	1 28	1 43	1 57	2 12	2 27	2 41	2 56	3 11	3 25	3 40	
	7 40	0 15	0 31	0 46	1 01	1 17	1 32	1 47	2 03	2 18	2 33	2 49	3 04	3 19	3 35	3 50	
	8 00	0 16	0 32	0 48	1 04	1 20	1 36	1 52	2 08	2 24	2 40	2 56	3 12	3 28	3 44	4 00	
	8 20	0 17	0 33	0 50	1 07	1 23	1 40	1 57	2 13	2 30	2 47	3 03	3 20	3 37	3 53	4 10	
	8 40	0 17	0 35	0 52	1 09	1 27	1 44	2 01	2 19	2 38	2 53	3 11	3 28	3 45	4 03	4 20	
	9 00	0 18	0 36	0 54	1 12	1 30	1 48	2 06	2 24	2 42	3 00	3 18	3 36	3 54	4 12	4 30	
9 20	0 19	0 37	0 56	1 15	1 33	1 52	2 11	2 29	2 48	3 07	3 25	3 44	4 03	4 21	4 40		
9 40	0 19	0 39	0 58	1 17	1 37	1 56	2 15	2 35	2 54	3 13	3 33	3 52	4 11	4 31	4 50		
10 00	0 20	0 40	1 00	1 20	1 40	2 00	2 20	2 40	3 00	3 20	3 40	4 00	4 20	4 40	5 00		
10 20	0 21	0 41	1 02	1 23	1 43	2 04	2 25	2 45	3 06	3 27	3 47	4 08	4 29	4 49	5 10		
10 40	0 21	0 43	1 04	1 25	1 47	2 08	2 29	2 51	3 12	3 33	3 55	4 16	4 37	4 59	5 20		

		Correction to height															
		Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	
Range of tide, see footnote	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	
	1.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	
	1.5	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.5	0.6	0.6	0.7	
	2.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	
	2.5	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.9	1.0	1.1	1.2	
	3.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.3	1.5	
	3.5	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.6	0.7	0.9	1.0	1.2	1.4	1.6	1.8	
	4.0	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.7	0.8	1.0	1.2	1.4	1.6	1.8	2.0	
	4.5	0.0	0.0	0.1	0.2	0.3	0.4	0.6	0.7	0.9	1.1	1.3	1.6	1.8	2.0	2.2	
	5.0	0.0	0.1	0.1	0.2	0.3	0.5	0.6	0.8	1.0	1.2	1.5	1.7	2.0	2.2	2.5	
	5.5	0.0	0.1	0.1	0.2	0.4	0.5	0.7	0.9	1.1	1.4	1.6	1.9	2.2	2.5	2.8	
	6.0	0.0	0.1	0.1	0.3	0.4	0.6	0.8	1.0	1.2	1.5	1.8	2.1	2.4	2.7	3.0	
	6.5	0.0	0.1	0.2	0.3	0.4	0.6	0.8	1.1	1.3	1.6	1.9	2.2	2.6	2.9	3.2	
	7.0	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.2	1.4	1.8	2.1	2.4	2.8	3.1	3.5	
	7.5	0.0	0.1	0.2	0.3	0.5	0.7	1.0	1.2	1.5	1.9	2.2	2.6	3.0	3.4	3.8	
	8.0	0.0	0.1	0.2	0.3	0.5	0.8	1.0	1.3	1.6	2.0	2.4	2.8	3.2	3.6	4.0	
	8.5	0.0	0.1	0.2	0.4	0.6	0.8	1.1	1.4	1.8	2.1	2.5	2.9	3.4	3.8	4.2	
	9.0	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.5	1.9	2.2	2.7	3.1	3.6	4.0	4.5	
	9.5	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.6	2.0	2.4	2.8	3.3	3.8	4.3	4.8	
	10.0	0.0	0.1	0.2	0.4	0.7	1.0	1.3	1.7	2.1	2.5	3.0	3.5	4.0	4.5	5.0	
10.5	0.0	0.1	0.3	0.5	0.7	1.0	1.3	1.7	2.2	2.6	3.1	3.6	4.2	4.7	5.2		
11.0	0.0	0.1	0.3	0.5	0.7	1.1	1.4	1.8	2.3	2.8	3.3	3.8	4.4	4.9	5.5		
11.5	0.0	0.1	0.3	0.5	0.8	1.1	1.5	1.9	2.4	2.9	3.4	4.0	4.6	5.1	5.8		
12.0	0.0	0.1	0.3	0.5	0.8	1.1	1.5	2.0	2.5	3.0	3.6	4.1	4.8	5.4	6.0		
12.5	0.0	0.1	0.3	0.5	0.8	1.2	1.6	2.1	2.6	3.1	3.7	4.3	5.0	5.6	6.2		
13.0	0.0	0.1	0.3	0.6	0.9	1.2	1.7	2.2	2.7	3.2	3.9	4.5	5.1	5.8	6.5		
13.5	0.0	0.1	0.3	0.6	0.9	1.3	1.7	2.2	2.8	3.4	4.0	4.7	5.3	6.0	6.8		
14.0	0.0	0.2	0.3	0.6	0.9	1.3	1.8	2.3	2.9	3.5	4.2	4.8	5.5	6.3	7.0		
14.5	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.4	3.0	3.6	4.3	5.0	5.7	6.5	7.2		
15.0	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.5	3.1	3.8	4.4	5.2	5.9	6.7	7.5		
15.5	0.0	0.2	0.4	0.7	1.0	1.5	2.0	2.6	3.2	3.9	4.6	5.4	6.1	6.9	7.8		
16.0	0.0	0.2	0.4	0.7	1.1	1.5	2.1	2.6	3.3	4.0	4.7	5.5	6.3	7.2	8.0		
16.5	0.0	0.2	0.4	0.7	1.1	1.6	2.1	2.7	3.4	4.1	4.9	5.7	6.5	7.4	8.2		
17.0	0.0	0.2	0.4	0.7	1.1	1.6	2.2	2.8	3.5	4.2	5.0	5.9	6.7	7.6	8.5		
17.5	0.0	0.2	0.4	0.8	1.2	1.7	2.2	2.9	3.6	4.4	5.2	6.0	6.9	7.8	8.8		
18.0	0.0	0.2	0.4	0.8	1.2	1.7	2.3	3.0	3.7	4.5	5.3	6.2	7.1	8.1	9.0		
18.5	0.1	0.2	0.5	0.8	1.2	1.8	2.4	3.1	3.8	4.6	5.5	6.4	7.3	8.3	9.2		
19.0	0.1	0.2	0.5	0.8	1.3	1.8	2.4	3.1	3.9	4.8	5.6	6.6	7.5	8.5	9.5		
19.5	0.1	0.2	0.5	0.8	1.3	1.9	2.5	3.2	4.0	4.9	5.8	6.7	7.7	8.7	9.8		
20.0	0.1	0.2	0.5	0.9	1.3	1.9	2.6	3.3	4.1	5.0	5.9	6.9	7.9	9.0	10.0		

Obtain from the predictions the high water and low water, one of which is before and the other after the time for which the height is required. The difference between the times of occurrence of these tides is the duration of rise or fall, and the difference between their heights is the range of tide for the above table. Find the difference between the nearest high or low water and the time for which the height is required.

Enter the table with the duration of rise or fall, printed in heavy-faced type, which most nearly agrees with the actual value, and on that horizontal line find the time from the nearest high or low water which agrees most nearly with the corresponding actual difference. The correction sought is in the column directly below, on the line with the range of tide.

When the nearest tide is high water, subtract the correction.
When the nearest tide is low water, add the correction.

1238. What will be the height of tide at Three Mile Harbor Entrance, Gardiners Bay, NY, at 0700 (ZD +5) on 14 Nov 1983?

Answers: 1.1 feet (0.3 meters) | 1.7 feet (0.5 meters) | 1.9 feet (0.6 meters) | 2.2 feet (0.7 meters)

High	Time	Low	High	Height	Low	Time to Nearest (H or L)	Duration of Tide
4:15		11:08	2:5	0.4	0.4	6:10	6:10
Diff. at Sub. Station Gardiners Bay, NY, 33992	(-)	0:21	(-)	0.2	0.0	Correction From Table 3	3.8
Corrected Time of Tide		7:48		2.0	0.2	Height of Tide	0.5
Desired Time	0700	Duration	1:52	Time to nearest low	4:10	Charted Depth	0.0
				Time to nearest high	4:38	Depth of Water	0.5

Duration: 2.0 | High: 2.0 | Average low: 1.5 | Low: 0.5 | RANGE: 1.5

tide1238

1248. On 6 July 1983, at 1520 DST (ZD +4) what will be the predicted height of tide at Newburgh, NY?

Answers: 2.1 feet | 1.7 feet | 1.2 feet | 0.6 foot

High	Time	Low	High	Height	Low	Time to Nearest (H or L)	Duration of Tide	
4:06		10:30	3:9	0.4	0.4	6:17	6:17	
Diff. at Sub. Station Newburgh, NY, 15453	(+)	0:12	(-)	1.5	0.2 (+)	Correction From Table 3	1.8	
Corrected Time of Tide		7:48		2.4	0.6	Height of Tide	0.0	
DST - 1 hour from problem	Desired Time	1420	Duration	1:14	Time to nearest low	3:55	Charted Depth	0.0
				Time to nearest high	6:17	Depth of Water	0.0	

Duration: 2.4 | High: 2.4 | Average low: 1.9 | Low: 0.6 | RANGE: 1.8

tide1248

1260. On 26 February 1983, at 1750 EST (ZD +5) what will be the predicted height of tide at New Haven (city dock), CT?

Answers: 1.3 foot (0.4 meter) | 1.6 foot (0.5 meter) | 1.3 feet (0.4 meter) | 1.6 feet (0.5 meter)

High	Time	Low	High	Height	Low	Time to Nearest (H or L)	Duration of Tide
22:59		16:33	2:1	-1.5	-1.5	6:11	6:11
Diff. at Sub. Station New Haven (city dock), CT, 32273	(-)	0:02	(-)	0.7	0.0	Correction From Table 3	2.7
Corrected Time of Tide		22:41		6.4	-1.3	Height of Tide	0.7
Desired Time	1750	Duration	5:11	Time to nearest low	1:20	Charted Depth	0.0
				Time to nearest high	4:51	Depth of Water	0.7

Duration: 6.4 | High: 6.4 | Average low: 4.9 | Low: -1.3 | RANGE: 7.7

tide1260

1279. For 3 November 1983, at 0830 EST (ZD +5) at Catskill, NY, what is the predicted height of tide?

Answers: +0.1 feet (+0.0 m) | 0.2 foot (0.2 m) | 0.9 foot (+0.3 m) | 1.3 feet (+0.4 m)

High	Time	Low	High	Height	Low	Time to Nearest (H or L)	Duration of Tide
6:49		0:33	5:5	0.4	-1.3	5:58	5:58
Diff. at Sub. Station Catskill, NY, 15573	(+)	0:37	(-)	4.0	0.3	Correction From Table 3	5.8
Corrected Time of Tide		13:16		4.8	1.0	Height of Tide	0.4
Desired Time	0830	Duration	5:58	Time to nearest low	1:02	Charted Depth	0.0
				Time to nearest high	4:56	Depth of Water	0.4

Duration: 4.8 | High: 4.8 | Average low: 3.3 | Low: 1.0 | RANGE: 3.8

tide1279

1288. Your vessel will be docking at Chester, PA, during the evening of 22 April 1983. The chart shows a depth of 20 feet (6.1 meters) at the pier. What will be the depth of water available at 2310 EST (ZD +5)?

Answers: 19.2 feet (5.9 meters) | 20.6 feet (6.3 meters) | 21.1 feet (6.4 meters) | 25.6 feet (7.9 meters)

High	Time	Low	High	Height	Low	Time to Nearest (H or L)	Duration of Tide
21:04		5:00	6:1	0.4	0.4	7:02	7:02
Diff. at Sub. Station Chester, PA, 18573	(-)	0:13	(-)	0.5	0.0	Correction From Table 3	0.8
Corrected Time of Tide		21:13		0.7	0.4	Height of Tide	0.4
Desired Time	2310	Duration	5:56	Time to nearest low	5:05	Charted Depth	20.0
				Time to nearest high	6:02	Depth of Water	24.8

Duration: 5.6 | High: 21.13 | 25.6' | Average low: 20' | Low: 0.4 | RANGE: 4.15

tide1288

1299. What will be the time (ZD +5) of the second HIGH tide at Weymouth Fore River Bridge, MA, on 12 November 1983?

Answers: 1659 | 1643 | 1627 | 1650

High	Time	Low	High	Height	Low	Time to Nearest (H or L)	Duration of Tide
16:57		23:06	6:6	0.0	2.6	6:20	6:20
Diff. at Sub. Station Weymouth Fore Bridge, MA, 2773	(+)	0:00	(-)	0.0	0.0	Correction From Table 3	4.0
Corrected Time of Tide		16:57		6.6	2.6	Height of Tide	0.0
Desired Time	1659	Duration	6:20	Time to nearest high or high		Charted Depth	0.0
				Time to nearest high	16:57	Depth of Water	0.0

Duration: 6.0 | High: 6.0 | Average low: 2.0 | Low: 0.0 | RANGE: 6.0

tide1299

1469. The charted channel depth at Eastport, ME, is 28 feet. You are drawing 31.5 feet and wish 2 feet clearance under the keel. What is the earliest time after 1700 (ZD +4) on 6 September 1983 that you can enter the channel?

Answers: 1825 | 1903 | 1915 | 2003

High	Time	Low	High	Height	Low	Time to Nearest (H or L)	Duration of Tide
22:08		16:03	21.1	-1.8	-1.8	6:05	6:05
Diff. at Sub. Station Eastport, ME, 6273	(+)	0:00	(-)	0.0	0.0	Correction From Table 3	3.6
Corrected Time of Tide		22:08		21.1	-1.8	Height of Tide	28.0
Desired Time	1700	Duration	18:15	Time to nearest low	15:52	Charted Depth	28.0
				Time to nearest high	4:08	Draft	31.5
				Time to nearest high	4:08	Safety margin (+)	2.0
				Desired time	18:00	Desired height	33.5

Duration: 21.1 | High: 33.5' @ 19:15 | Average low: 28' | Low: -1.8 | RANGE: 32.9

Enter table 3 with 3.6 which is 1/2 of 7.3 across from range 11.5 which is 1/2 of 22.9 as the closest determined correction to nearest low. Across from duration 6:05 you will intersect with 2:12 as time from nearest high or low. In this case it is low @ 16:03 = 2:12 = 18:15 + 1 hr for Standard Time = 19:15 as the time tide will be 33.5'. "See diagram 2" with question for example.

This number comes from the difference between average low of 28' and the desired height of 33.5' needed to get a safety margin of 2' when vessel is drawing 31.5'.

tide1469

357: On 10 August 1983 you will dock near Days Point, Weehawken, on the Hudson River, at 1800 DST (ZD +4). The charted depth alongside the pier is 24 feet (7.3 meters). What will be the depth of water when you dock?

Answers 23.5 feet (7.1 m) **23.9 feet (7.2 m)** 24.9 feet (7.5 m) 26.3 feet (8.0 m)

	Time		Height		Duration of Tide =	Time to Nearest (H or L) =	Range of Tide =	Correction From Table 3 =	Height of Tide =	Charted Depth =	Depth of Water =
	High	Low	High	Low							
Reference Station(The Battery)	21:50	15:36	5.9	-0.5	6:14	1:01	6.1	0.4	-0.1	24	23.9
Diff. at Sub. Station(Weehawken)	0:24	0:23	-0.3	0.0							
Corrected Time of Tide	22:14	15:59	5.6	-0.5							

Desired time= 17:00

Duration= 6:14

Time to nearest high or low= 1:01

5.6 _____ high
 _____ average low
 -0.5 _____ low
 6.1 RANGE

tide357

367: What will be the time after 0800 EST (ZD +5) that the height of the tide at South Freeport, ME, will be 6.0 feet (1.8 meters) on 7 November 1983?

Answers 0936 0942 **0951** 1001

	Time		Height		Duration of Tide =	Time to Nearest (H or L) =	Range of Tide =	Correction From Table 3 =	Height of Tide =	Charted Depth =	Depth of Water =
	High	Low	High	Low							
Reference Station(Portland)	12:25	6:13	10.1	-0.2	6:12	2:46	10.2	4.0	6.0		
Diff. at Subordinate Station(S. Freeport)	0:12	0:10	-0.1	0.0							
Corrected Time of Tide	12:37	6:23	10.0	-0.2							

Desired time= **9:51**

Duration= 6:12

Time to nearest HIGH = 2:46
 Time to nearest LOW = 3:28

Range= 10.2

10.0 _____ high
 _____ average low water
 -0.2 _____ low
 10.2 RANGE

tide367

407: What would be the height of the tide at Crisfield, MD, at 0310 DST (ZD +4) on 6 May 1983?

Answers 0.1 foot **0.5 foot** 1.1 feet 1.6 feet

	Time		Height		Duration of Tide =	Time to Nearest (H or L) =	Range of Tide =	Correction From Table 3 =	Height of Tide =	Charted Depth =	Depth of Water =
	High	Low	High	Low							
Reference Station(Hampton Roads pg88)	3:53	21:36 day before	2.1	0.5	6:08	0:34	1.1	0.0	0.5		
Diff. at Sub. Station(Crisfield, MD, 1979)	3:51	(+):4:00	-0.5	0.0							
Corrected Time of Tide	7:44	25:36 may 6th 1:36 may 6th	1.6	0.5							

Desired time= 3:10

Time given as DST subtract 1 hour. **2:10**

Duration= 6:08

Time to nearest high or low= 0:34

1.6 _____ high
 _____ average low
 0.5 _____ low
 1.1 RANGE

tide407

417: On 6 July 1983, at 1830 DST (ZD +4), what will be the predicted height of tide at Newburgh, NY?

Answers 3.3 feet 2.6 feet 2.4 feet **2.0 feet**

	Time		Height		Duration of Tide =	Time to Nearest (H or L) =	Range of Tide =	Correction From Table 3 =	Height of Tide =	Charted Depth =	Depth of Water =
	High	Low	High	Low							
Reference Station(New York, pg56)	16:44	10:30	5.0	0.4	5:56	2:56	2.9	1.5	2.1		
Diff. at Sub. Station(Newburgh, NY, 1545)	3:42	4:00	-1.5	0.2							
Corrected Time of Tide	20:26	14:30	3.5	0.6							

Desired time= 18:30

Time given as DST subtract 1 hour. **17:30**

Duration= 5:56

Time to nearest high or low= 2:56

3.5 _____ high
 _____ average low
 0.6 _____ low
 2.9 RANGE

tide417

427. On 23 March 1983, at Kingston Point, NY, what is the earliest time after 1700 EST (ZD +5) that the predicted tide will be +2.0 feet?

Answers	1730	1800	1854	2030
Reference Station (New York, pg.55)	High 15:43	Low 9:53	High 3:7	Low 0:2
Diff. at Sub. Station (Kingston Point, NY, 1553)	0:16	0:12	-0:2	-0:1
Corrected Time of Tide	20:59	15:24	2:0	0:0
Desired time =	17:30	Duration =	5:24	Time to nearest high or low =
Desired Height =	2.8	high	2.8	2:16
		average low		2:16
		0.1		2:0
		2.7	RANGE	Low

Duration of Tide = 5:16
Time to Nearest (H or L) = 2:16
Range of Tide = 2.0
Correction From Table 3 = 1.9 (-)
Height of Tide = 1.9 (-)
Time of desired height = 18:14
Depth of Water = 18:14

Enter Table 3 with -1.9 across from range 2.7 as the determined correction to nearest low. Across from duration you will intersect with 2:16 as time from nearest high or low. High @ 20:59-2:16=18:43.

tide427

437. Your vessel will be docking at Chester, PA, during the evening of 22 April 1983. The chart shows a depth of 20 Feet (6.1 meters) at the pier. What will be the depth of water available at 1856 EST (ZD +5)?

Answers	22.4 feet (6.8 m)	23.4 feet (7.2 m)	24.9 feet (7.6 m)	25.7 feet (7.8 m)
Reference Station (Philadelphia, pg.76)	High 22:04	Low 16:41	High 6:1	Low 0:3
Diff. at Sub. Station (Chester, PA, 1887) (-)	0:15	0:15	-0:5	0:0
Corrected Time of Tide	21:13	15:56	5:6	0:3
Desired time =	18:56	Duration =	5:17	Time to nearest high or low = 2:17
Desired Height =	5.6	high	5.6	2:17
	23.6	average low		2:17
	0.3	0.3		2:0
	5.3	RANGE	low	2:0

Duration of Tide = 5:17
Time to Nearest (H or L) = 2:17
Range of Tide = 5.3
Correction From Table 3 = 2.0
Height of Tide = 3.6
Charted Depth = 20
Depth of Water = 23.6

Height of tide = 5.6 - 2.0 correction

tide437

447. On 27 April 1983, at 1105 DST (ZD +4), what will be the predicted height of tide at Falkner Island, CT?

Answers	5.3 feet (1.6 m)	5.6 feet (1.7 m)	6.2 feet (1.9 m)	6.8 feet (2.7 m)
Reference Station (Bridgeport, pg.48)	High 11:15	Low 5:08	High 6.9	Low -1.2
Diff. at Sub. Station (Falkner Island, CT, 1219) (-)	0:13	0:17	-1.3	0:0
Corrected Time of Tide	11:02	4:41	5.6	-1.2
Desired time =	10:05	Duration =	6:24	Time to nearest high or low = 0:57
DST (ZD +4)	5.6	high	5.6	0:57
	-1.2	average low		0:57
	6.8	RANGE	low	0:3

Duration of Tide = 6:21
Time to Nearest (H or L) = 0:57
Range of Tide = 6.8
Correction From Table 3 = 4.5
Height of Tide = 5.3
Charted Depth = 5.3
Depth of Water = 5.3

Charted depth 20'

tide447

457. Find the height of the tide at Port Wentworth, GA, on 5 October 1983, at 1840 DST (ZD +4).

Answers	3.0 feet	3.5 feet	4.0 feet	4.4 feet
Reference Station (Savannah, pg.104)	High 19:59	Low 13:56	High 9.3	Low -0.9
Diff. at Sub. Station (Port Wentworth, GA, 2715) (+)	0:33	0:43	-0.4	0:0
Corrected Time of Tide	20:32	14:37	8.9	-0.9
Desired time =	17:40	Duration =	6:05	Time to nearest high or low = 5:52
DST (ZD +4) minus 1 hour	8.9	high	8.9	5:52
	-0.9	average low		5:52
	9.8	RANGE	low	5:52

Duration of Tide = 6:03
Time to Nearest (H or L) = 2:52
Range of Tide = 9.8
Correction From Table 3 = 4.5
Height of Tide = 5.3
Charted Depth = 5.3
Depth of Water = 5.3

Height of tide = 8.9 - 0.9

tide457

467. At what time after 1400 EST (ZD +5), on 4 January 1983, will the height of the tide at Port Wentworth, GA, be 3.0 feet?

Answers	1612	1630	1654	1738
Reference Station (Savannah, pg.104)	High 12:47	Low 19:19	High 7.8	Low -0.4
Diff. at Sub. Station (Port Wentworth, GA, 2715) (+)	0:33	0:43	-0.4	0:0
Corrected Time of Tide	13:20	20:00	7.4	-0.4
Desired time =	16:00	Duration =	6:38	Time to nearest high or low = 5:04
Desired Height =	3.0	high	3.0	5:04
	-3.4	average low		5:04
	7.8	RANGE	low	5:04

Duration of Tide = 6:40
Time to Nearest (H or L) = 2:52
Range of Tide = 7.8
Correction From Table 3 = 5.4
Height of Tide = 3.4
Charted Depth = 3.4
Depth of Water = 3.4

Enter Table 3 with -3.4 as the determined correction to nearest low. Across from duration you will intersect with 3:07 as time from nearest high or low. Low @ 20:00-3:07=16:53

tide467

477. Determine the height of the tide at 1430 EST (ZD +5) at New Bedford, MA, on 10 April 1983.

Answers	1.1 feet	1.2 feet	1.4 feet	1.7 feet
Reference Station (Newport, pg.40)	High 18:01	Low 11:29	High 3.5	Low 0.0
Diff. at Sub. Station (New Bedford, MA, 1135)	0:10	0:12	0.2	0.0
Corrected Time of Tide	18:11	11:41	3.7	0.0
Desired time =	14:30	Duration =	6:30	Time to nearest high = 3:41
Desired Height =	1.4	high	1.4	Time to nearest low = 3:49
	0.0	average low		3:49
	3.7	RANGE	low	3:49

Duration of Tide = 6:30
Time to Nearest (H or L) = 2:49
Range of Tide = 3.7
Correction From Table 3 = 1.4
Height of Tide = 1.4
Charted Depth = 1.4
Depth of Water = 1.4

Very touchy choosing the range column on this one. 3.7 is closer to 3.5 than 4.0. Be careful.

tide477

487. What will be the time after 0600 (ZD +3), on 6 March 1983, that the height of the tide at Puerto Rosales, Argentina, will be 9.0 feet (2.7 meters)?

Answers	0740	0754	0840	0922
Reference Station (Puerto Belgrano, pg.184)	High 11:42	Low 5:36	High 12.9	Low 0.9
Diff. (Puerto Rosales, Argentina, 3747) (+)	0:00	0:07	0:1	-0:1
Corrected Time of Tide	11:42	5:43	13.0	0.8
Desired time =	6:00	Duration =	5:59	Time to nearest high =
Desired Height =	9.0	high	9.0	Time to nearest high or low =
	4.0	average low		4.0
	-8.2	RANGE	low	4.1
	12.2			4.1

Duration of Tide = 5:59
Time to Nearest (H or L) = 2:24
Range of Tide = 12.2
Correction From Table 3 = 4.1
Height of Tide = 4.1
Time of desired height = 9:18
Depth of Water = 9:18

work backwards. Enter table 3 with 4.1 across from range 12.0 as the closest determined correction to nearest low. Across from duration 5:59 you will intersect with 2:24 as time from nearest high or low. In this case it is High @ 11:43 - 2:44 = 09:18 as the time tide will be 9'. Close enough to choose correct answer.

tide487

497. What will be the time after 0300 (ZD +4), on 5 March 1983, when the height of the tide at Port of Spain, Trinidad, will be 2.5 feet (.76 meters) ?

Answers: 0548, 0602, 0618, 0634

Time		Height	
High	Low	High	Low
9:22	3:48	5.6	0.4
(-) 0:44	(-) 1:12	(x) 0.31	0.31
8:38	2:36	(-) 2.5	1.5 ← 2.5 desired height
		(-) 0.6	-1.0

Reference Station (Punta Gorda, pg.160)
Diff. (Port of Spain, Trinidad, 3584)
Corrected Time of Tide

Duration of Tide = 6:02
Time to Nearest (H or L) = 2:36
Range of Tide = 1.6
Correction From Table 3 = 0.31
Height of Tide = 2.5
Time of desired height = 8:38
Depth of Water = 6.0

Desired time = 0548
Desired Height = 2.5
Duration = 6:02
Time to nearest high = n/a
Time to nearest high or low = n/a

Work backwards. Enter table 3 with 2.5 across from range 1.6 as the closest determined correction to nearest high. Across from duration 6:02 you will intersect with 2:36 as time from nearest high or low. In this case it is High @ 8:38 - 2:36 = 06:02 as the time tide will be 2.5'. "See diagram 2" with question for example.

tide497

507. What will be the time after 1000 EST (ZD +5), on 4 March 1983, that the height of the tide at City Island, NY, will be 2.4 feet?

Answers: 1228, 1240, 1244, 1248

Time		Height	
High	Low	High	Low
15:47	9:55	6.5	-0.4
(-) 0:03	(-) 0:03	(x) 0.1	0.0
15:44	9:52	(-) 2.4	-2.4 desired height
		(-) 4.2	-2.8

Reference Station (Willetts Point, pg 52)
Diff. (City Island, NY, 1264)
Corrected Time of Tide

Duration of Tide = 5:52
Time to Nearest (H or L) = 9:55
Range of Tide = 7.0
Correction From Table 3 = 0.1
Height of Tide = 2.4
Time of desired height = 15:44
Depth of Water = 12.28

Desired time = 1228
Desired Height = 2.4
Duration = 5:52
Time to nearest high or low = n/a

Work backwards. Enter table 3 with 2.8 across from range 7.0 as the closest determined correction to nearest high. Across from duration 5:52 you will intersect with 2:36 as time from nearest high or low. In this case it is Low @ 9:52 + 2:36 = 12:28 as the time tide will be 2.4'. "See diagram 2" with question for example.

tide507

517. On 5 March 1983, at 0630 EST (ZD +5), what will be the predicted height of tide at Ocracoke, Ocracoke Inlet, NC?

Answers: 0.1 feet, 1.2 feet, 1.9 feet, 2.3 feet

Time		Height	
High	Low	High	Low
1:39	8:00	2.5	0.2
(-) 3:23	(-) 3:00	(x) 0.40	0.40
0:16	7:00	(-) 2.5	1.0

Reference Station (Hampton Roads, pg 88)
Diff. at Ocracoke, Ocracoke Inlet, NC, 2459
Corrected Time of Tide

Duration of Tide = 6:14
Time to Nearest (H or L) = 8:00
Range of Tide = 0.0
Correction From Table 3 = 0.0
Height of Tide = 0.1
Charted Depth = 0.1
Depth of Water = 0.1

Desired time = 0630
Desired Height = 0.1
Duration = 6:14
Time to nearest high = 8:00
Time to nearest low = n/a

tide517

527. On 6 June 1983, at 1719 EST (ZD +5), what will be the predicted height of tide at Chester, PA?

Answers: 0.8 feet (0.2 meters), 1.1 feet (0.3 meters), 1.5 feet (0.4 meters), 4.7 feet (1.4 meters)

Time		Height	
High	Low	High	Low
1:39	8:00	2.5	0.2
(-) 2:12	(-) 0:45	(x) 0.5	0.0
0:53	7:15	(-) 6.7	0.5

Reference Station (Philadelphia, Pg 76)
Diff. at Sub. Station (Chester, PA, 1857)
Corrected Time of Tide

Duration of Tide = 5:32
Time to Nearest (H or L) = 8:00
Range of Tide = 1.20
Correction From Table 3 = 0.2
Height of Tide = 0.8
Charted Depth = 0.8
Depth of Water = 0.8

Desired time = 1719
Desired Height = 0.8
Duration = 5:32
Time to nearest low = 7:15
Time to nearest high = 4:12

tide527

537. What will be the height of tide at Sagathy Neck, VA, at 1600 DST (ZD +4), on 16 August 1983?

Answers: 2.3 feet, 2.9 feet, 3.3 feet, 3.6 feet

Time		Height	
High	Low	High	Low
14:15	20:44	4.8	0.0
(-) 3:16	(-) 2:15	(x) 3.5	0.3

Reference Station (Cape Henry, pg. 88)
Diff. at Sub. Station (Sagathy Neck, VA, 1807)
Corrected Time of Tide

Duration of Tide = 6:24
Time to Nearest (H or L) = 20:44
Range of Tide = 2.8
Correction From Table 3 = 0.3
Height of Tide = 2.9
Charted Depth = 2.9
Depth of Water = 2.9

Desired time = 1600
Desired Height = 2.9
Duration = 6:24
Time to nearest high = 14:15
Time to nearest low = 4:40

tide537

547. On 2 November 1983, at 1630 EST (ZD +5), what will be the predicted height of tide at Fulton, FL?

Answers: 3.2 feet (0.9 meters), 3.4 feet (1.0 meters), 4.2 feet (1.3 meters), 5.6 feet (1.7 meters)

Time		Height	
High	Low	High	Low
18:38	12:35	5.9	0.0
(-) 0:29	(-) 0:42	(x) 1.1	0.0
18:07	12:53	(-) 4.2	0.0

Reference Station (Napier, pg.108)
Diff. at Sub. Station (Fulton, FL, 2859)
Corrected Time of Tide

Duration of Tide = 6:14
Time to Nearest (H or L) = 12:35
Range of Tide = 4.2
Correction From Table 3 = 1.1
Height of Tide = 3.4
Charted Depth = 3.4
Depth of Water = 3.4

Desired time = 1630
Desired Height = 3.4
Duration = 6:14
Time to nearest low = 12:53
Time to nearest high = 18:07

tide547

557. Your vessel has a draft of 23 feet. On 23 June 1983 you wish to pass over a temporary obstruction near Beaufort, SC, that has a charted depth of 22 feet. Allowing for a safety margin of 3 feet, what is the earliest time after 1600 DST (ZD +4) that this passage can be made?

Answers: 1750, 1815, 1855, 1944

Time		Height	
High	Low	High	Low
19:07	12:35	7.7	-0.4
(+) 1:13	(+) 0:46	(x) 0.5	0.0
20:20	13:21	(-) 8.2	-0.4
		(-) 4.0	-4.4

Reference Station (Savannah River, pg.100)
Diff. at Sub. Station (Beaufort, SC, 2883)
Corrected Time of Tide

Duration of Tide = 6:59
Time to Nearest (H or L) = 12:35
Range of Tide = 8.6
Correction From Table 3 = 4.2
Height of Tide = 2.2
Charted Depth = 22
Depth of Water = 23
Draft = 23
Safety margin = 3
Desired Height = 26

Desired time = 1600
Desired Height = 26
Duration = 6:59
Time to nearest low = 13:21
Time to nearest high = 19:07

Work backwards. Enter table 3 with 4.2 across from range 8.6 as the closest determined correction to nearest high. Across from duration 6:59 you will intersect with 1:30 as time from nearest high or low. In this case it is High @ 19:07 + 1:30 = 20:37 as the time tide will be 26'. "See diagram 2" with question for example. Because the question is in DST you must add 1 hour to the answer to arrive at 17:50 when the tide will be 26'.

This number comes from the difference between average low of 22' and the desired height of 26' needed to get a safety margin of 3'.

tide557

577. Your vessel has a draft of 34 feet. On 7 April 1983 you wish to pass over a temporary obstruction near Lovell Island, MA. That has a charted depth of 22 feet. Allowing for a safety margin of 3.1 feet under your keel, what is the earliest time after 0100 EST (ZD +3) that this passage can be made?

Answers	0248	0304	0342	0356
Reference Station(Boston, pg.36)	High 6:57	Low 0:22	High 8:5	Low 1:8
Diff. at Sub. Station(Lovell Island, MA. 941)	0:02 (-)	0:01 (+)	0:4 (-)	0:0
Corrected Time of Tide	6:55	0:21	8:1	1:8
Duration-	6:35	0:21	8:1	1:8
Time to nearest low	3:0	3:0	3:3	3:3
Time to nearest high	3:0	3:0	3:3	3:3
Height	30.3	27.1	22.8	22.8
RANGE	22'	22'	22'	22'

Duration of Tide = 6:16
Time to Nearest (H or L) = 0:00
Range of Tide = 6.3
Correction From Table 3 = 5.3
Height of Tide = 27.1
Charted Depth = 22
Depth of water = 24.0
Draft = 34.0
Safety margin (-) = 3.1
Desired height = 27.1

Work backwards. Enter table 3 with 3.0 across from range 6.3 as the closest determined correction to nearest high. Across from duration 6:16 you will intersect with 2:57 as time from nearest high or low. In this case it is high @ 06:55 - 2:57 = 3:58 as the time tide will be 27.1'. "See diagram 2" with question for example.

This number comes from the difference between average low of 22' and the desired height of 27.1' needed to get a safety margin of 3.1 when vessel is drawing 34'

tide577

587. Your vessel has a draft of 34 feet. On 8 October 1983 you wish to pass over an obstruction near Jaffrey Point, NH. that has a charted depth of 31 feet. Allowing for a safety margin of 3 feet, what is the earliest time after 0900 DST (ZD +4) that this passage can be made?

Answers	0920	1023	1120	1159
Reference Station(Portland, pg.32)	High 12:04	Low 6:53	High 10:6	Low -1:2
Diff. at Sub. Station(Jaffrey Point, NH. 893)	0:03 (-)	0:05 (-)	0:4 (-)	0:0
Corrected Time of Tide	12:07	6:48	10:2	-1:2
Duration-	6:12	6:12	6:0	7:2
Time to nearest low	3:0	3:0	3:0	3:0
Time to nearest high	3:0	3:0	3:0	3:0
Height	31.0	37' @ 10:35	29.8	29.8
RANGE	29.8	29.8	29.8	29.8

Duration of Tide = 6:11
Time to Nearest (H or L) = 0:00
Range of Tide = 11.4
Correction From Table 3 = 3.4
Height of Tide = 31
Charted Depth = 31
Depth of Water = 34.0
Draft = 34.0
Safety margin (+) = 3.0
Desired height = 37.0

Work backwards. Enter table 3 with 4.2 across from range 11.4 as the closest determined correction to nearest high. Across from duration 6:12 you will intersect with 2:32 as time from nearest high or low. In this case it is high @ 12:07 - 2:32 = 9:35 as the time tide will be 37'. "See diagram 2" with question for example. Because the question is in DST you must add 1 hour to the answer to arrive at 10:35 when the tide will be 37'.

This number comes from the difference between average low of 31' and the desired height of 37' needed to get a safety margin of 3' when vessel is drawing 34'

tide587

597. You will be loading in Boston Harbor to a maximum draft of 32'06". The charted depth of an obstruction in the channel near Boston Light is 30 feet and you wish to have 3 feet of keel clearance. The steaming time from the pier to the obstruction is 01h 05m. What is the latest time (ZD +4) you can sail on 17 May 1983 and meet these requirements?

Answers	1610	1728	1821	2350
Reference Station(Boston, pg.36)	High 14:57	Low 20:57	High 9:3	Low 0:4
Diff. at Sub. Station(Boston Harbor, 939)	0:00 (-)	0:01 (-)	0:5 (-)	0:0
Corrected Time of Tide	14:57	20:58	8:8	0:4
Duration-	6:01	6:01	5:5	5:8
Time to nearest low	3:0	3:0	3:0	3:0
Time to nearest high	3:0	3:0	3:0	3:0
Height	35.5'	30.4	30.0	30.0
RANGE	30.4	30.0	30.0	30.0

Duration of Tide = 6:01
Time to Nearest (H or L) = 0:00
Range of Tide = 8.4
Correction From Table 3 = 3.3
Height of Tide = 30
Charted Depth = 30
Depth of water = 32.5
Draft = 32.5
Safety margin (-) = 3.0
Desired height = 35.5

Work backwards. Enter table 3 with 3.3 across from range 8.4 as the closest determined correction to nearest high. Across from duration 6:01 you will intersect with 2:36 as time from nearest high or low. In this case it is high @ 14:57 + 2:36 = 17:33 as the time tide will be 35.5'. "See diagram 2" with question for example. Because the question is in DST you must add 1 hour to the answer to arrive at 17:28 when the tide will be 35.5'.

This number comes from the difference between average low of 30' and the desired height of 35.5' needed to get a safety margin of 3' over the obstruction when vessel is drawing 34'

tide597

607. The charted depth alongside the south face of Mystic Pier, Charlestown, MA, is 35 feet. Your maximum draft is 38 feet. You wish to have 2 feet under the bottom, on a rising tide, when you go alongside to discharge a heavy lift. What is the earliest time after 0900 EST (ZD +5), on 2 February 1983, that you can dock?

Answers	1020	1050	1127	1130
Reference Station(Boston, pg.36)	High 14:49	Low 8:33	High 10:3	Low -0:8
Diff. at Sub. Mystic Pier, Charlestown, MA. 957)	0:00 (-)	0:01 (-)	0:5 (-)	0:0
Corrected Time of Tide	14:49	8:32	10:3	-0:8
Duration-	6:16	6:16	5:0	5:8
Time to nearest low	3:0	3:0	3:0	3:0
Time to nearest high	3:0	3:0	3:0	3:0
Height	35.3	35'	34.2	34.2
RANGE	34.2	34.2	34.2	34.2

Duration of Tide = 6:15
Time to Nearest (H or L) = 0:00
Range of Tide = 11.3
Correction From Table 3 = 5.3
Height of Tide = 35
Charted Depth = 35
Depth of water = 38.0
Draft = 38.0
Safety margin (-) = 2.0
Desired height = 40.0

Enter table 3 with 5.3 across from range 11.3 as the closest determined correction to nearest high. Across from duration 6:16 you will intersect with 2:36 as time from nearest high or low. In this case it is high @ 14:49 + 2:36 = 17:25 as the time tide will be 40'. "See diagram 2" with question for example.

This number comes from the difference between average low of 35' and the desired height of 40' needed to get a safety margin of 2' when vessel is drawing 38'

tide607

637. Your draft is 24 feet. You wish to pass over an obstruction near Lovell Island, MA, on 6 May 1983. The charted depth is 22 feet. Allowing a safety margin of 3.0 feet, what is the earliest time after 0200 DST (ZD +4) that this passage can be made?

Answers	0215	0245	0310	0342
Reference Station(Boston, pg.36)	High 5:55	Low 23:44 day before	High 8:5	Low 1:9
Diff. at Sub. (Lovell Island, MA. 941)	0:02 (+)	0:01 (+)	0:4 (-)	0:0
Corrected Time of Tide	5:57	23:45	8:1	1:9
Duration-	6:12	6:12	5:0	5:0
Time to nearest low	3:0	3:0	3:0	3:0
Time to nearest high	3:0	3:0	3:0	3:0
Height	27'	27' @ 11:37	23.9'	23.9'
RANGE	23.9'	23.9'	23.9'	23.9'

Duration of Tide = 6:12
Time to Nearest (H or L) = 2:16
Range of Tide = 6.2
Correction From Table 3 = 3.1
Height of Tide = 22
Charted Depth = 22
Depth of water = 24.0
Draft = 24.0
Safety margin (+) = 3.0
Desired height = 27.0

Enter table 3 with 3.1 across from range 6.2 as the closest determined correction to nearest high. Across from duration 6:12 you will intersect with 3:00 as time from nearest high or low. In this case it is low @ 23:45 day before + 3:00 = 26:45 = 24:00 = 02:45 + 1 hr for Standard Time = 03:45 as the time tide will be 27'. "See diagram 2" with question for example.

This number comes from the difference between average low of 22' and the desired height of 27' needed to get a safety margin of 3' when vessel is drawing 24'

tide637