



NOAA Tide Predictions

Astoria, OR, 2022

The NOAA Tide Predictions application provides predictions in both graphical and tabular formats, with many user selected options, for over 3000 stations broken down by key areas in each state. Users can also access stations via the Google map interface. Additional information can be found in the help page.

Station Types: The NOAA Tide Predictions application provides predictions from 2 distinct categories of stations at over 3000 locations:

Harmonic - The predicted height values for Harmonic stations are conducted by combining the harmonic constituents into a single tide curve.

Subordinate - The high and low height values for Subordinate stations are obtained by means and differences, and ratios applied to the full harmonic constant predictions at a specific Harmonic station (a Reference station).

Disclaimer: The official Tide prediction tables are published annually on October 1, for the following calendar year. Tide predictions generated prior to the publishing date of the official tables are subject to change. The predictions from the web based NOAA Tidal Predictions are based upon the latest information available as of the date of your request. Tide predictions generated may differ from the official published predictions if information for the station requested has been updated since the publishing date of the official published tables.



Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm
1 12:19 AM	7.7 235	16 12:57 AM	7.6 232	1 01:45 AM	8.4 256	16 01:41 AM	8.0 244	1 12:37 AM	8.2 250	16 01:28 AM	7.8 238
05:26 AM	3.6 110	06:03 AM	4.0 122	07:13 AM	2.8 85	07:12 AM	2.9 88	06:11 AM	2.4 73	06:08 AM	2.4 73
Sa 11:20 AM	10.5 320	Su 11:47 AM	9.2 280	Tu 01:00 PM	10.1 308	W 12:54 PM	9.0 274	Tu 12:03 PM	9.5 290	W 12:57 PM	8.4 256
06:43 PM	-1.3 -40	07:06 PM	-0.2 -6	● 08:04 PM	-1.3 -40	○ 07:49 PM	-0.4 -12	06:59 PM	-1.0 -30	07:40 PM	-0.1 -3
2 01:13 AM	8.1 247	17 01:37 AM	7.8 238	2 02:28 AM	8.7 265	17 02:11 AM	8.1 247	2 01:17 AM	8.5 259	17 01:59 AM	8.1 247
06:24 AM	3.6 110	06:47 AM	3.9 119	08:04 AM	2.4 73	07:51 AM	2.4 73	07:03 AM	1.8 55	07:50 AM	1.7 52
Su 12:13 PM	10.6 323	M 12:26 PM	9.2 280	W 01:50 PM	9.9 302	Th 01:34 PM	8.9 271	W 12:54 PM	9.4 287	Th 01:40 PM	8.5 259
● 07:33 PM	-1.5 -46	○ 07:42 PM	-0.3 -9	08:44 PM	-1.1 -34	08:19 PM	-0.4 -12	● 07:38 PM	-0.8 -24	08:14 PM	-0.1 -3
3 02:04 AM	8.3 253	18 02:19 AM	7.9 241	3 03:08 AM	8.8 268	18 02:39 AM	8.3 253	3 01:55 AM	8.8 268	18 02:27 AM	8.4 256
07:20 AM	3.4 104	07:23 AM	3.7 113	08:04 AM	2.0 61	08:30 AM	2.0 61	07:50 AM	1.3 40	07:50 AM	1.1 34
M 01:04 PM	10.6 323	Tu 01:04 PM	9.2 280	Th 02:39 PM	9.4 287	F 02:14 PM	8.8 268	Th 01:41 PM	9.2 280	F 02:24 PM	8.5 259
08:21 PM	-1.5 -46	08:15 PM	-0.4 -12	09:22 PM	-0.6 -18	08:49 PM	-0.2 -6	08:15 PM	-0.5 -15	08:46 PM	0.1 3
4 02:52 AM	8.5 259	19 02:47 AM	8.0 244	4 03:45 AM	8.9 271	19 03:06 AM	8.6 262	4 02:29 AM	8.9 271	19 02:54 AM	8.7 265
08:14 AM	3.2 98	08:08 AM	3.5 107	10:41 AM	1.8 55	09:08 AM	1.6 49	08:35 AM	0.9 27	09:50 AM	0.6 18
Tu 01:56 PM	10.3 314	W 01:41 PM	9.2 280	F 03:28 PM	8.7 265	Sa 02:57 PM	8.4 256	F 02:28 PM	8.7 265	Sa 03:08 PM	8.4 256
09:07 PM	-1.3 -40	08:47 PM	-0.4 -12	09:57 PM	0.0 0	09:57 PM	0.0 0	08:48 PM	0.0 0	09:18 PM	0.5 15
5 03:38 AM	8.6 262	20 03:19 AM	8.0 244	5 04:22 AM	8.9 271	20 03:34 AM	8.8 268	5 03:02 AM	8.9 271	20 03:22 AM	9.0 274
07:20 AM	3.0 91	08:46 AM	3.2 98	10:28 AM	1.7 52	09:49 AM	1.3 40	09:17 AM	0.7 21	09:50 AM	0.2 6
W 02:48 PM	9.8 299	Th 02:20 PM	9.0 274	Sa 04:18 PM	8.0 244	Su 03:44 PM	8.0 244	Sa 03:13 PM	8.2 250	Su 03:54 PM	8.1 247
09:50 PM	-0.9 -27	09:16 PM	-0.3 -9	10:31 PM	0.8 24	09:50 PM	0.9 27	09:20 PM	0.7 21	09:51 PM	1.0 30
6 04:23 AM	8.6 262	21 03:48 AM	8.1 247	6 04:57 AM	8.8 268	21 04:05 AM	9.0 274	6 03:32 AM	8.9 271	21 03:53 AM	9.3 283
10:00 AM	2.8 85	09:25 AM	2.9 88	11:19 AM	1.7 52	10:34 AM	1.1 34	09:59 AM	0.7 21	10:32 AM	-0.1 -3
Th 03:41 PM	9.1 277	F 03:01 PM	8.7 265	Su 05:12 PM	7.2 219	M 04:37 PM	7.3 223	Su 04:00 PM	7.6 232	M 04:44 PM	7.7 235
10:32 PM	-0.3 -9	09:46 PM	0.0 0	11:05 PM	1.7 52	10:25 PM	1.6 49	09:50 PM	1.4 43	10:26 PM	1.6 49
7 05:07 AM	8.6 262	22 04:18 AM	8.3 253	7 05:33 AM	8.6 262	22 04:41 AM	9.2 280	7 04:01 AM	8.7 265	22 04:27 AM	9.4 287
10:56 AM	2.7 82	10:07 AM	2.6 79	12:14 PM	1.8 55	11:28 AM	1.0 30	10:41 AM	0.8 24	11:18 AM	-0.1 -3
F 04:36 PM	8.2 250	Sa 03:46 PM	8.2 250	M 06:14 PM	6.5 198	Tu 05:43 PM	6.7 204	M 04:50 PM	7.0 213	Tu 05:40 PM	7.1 216
11:13 PM	0.4 12	10:18 PM	0.5 15	11:45 PM	2.6 79	11:07 PM	2.5 76	10:21 PM	2.2 67	11:05 PM	2.3 70
8 05:51 AM	8.6 262	23 04:50 AM	8.5 259	8 06:13 AM	8.4 256	23 05:25 AM	9.2 280	8 04:31 AM	8.5 259	23 05:07 AM	9.4 287
11:55 AM	2.6 79	10:55 AM	2.4 73	11:17 PM	1.8 55	12:37 PM	1.0 30	11:27 AM	1.1 34	12:13 PM	0.1 3
Sa 05:37 PM	7.4 226	Su 04:40 PM	7.6 232	Tu 07:27 PM	6.1 186	W 07:04 PM	6.2 189	Tu 05:47 PM	6.4 195	W 06:47 PM	6.6 201
11:56 PM	1.3 40	10:54 PM	1.1 34	●		●		10:57 PM	3.0 91	11:53 PM	3.1 94
9 06:35 AM	8.6 262	24 05:26 AM	8.7 265	9 12:34 AM	3.4 104	24 12:03 AM	3.3 101	9 05:05 AM	8.2 250	24 05:55 AM	9.1 277
10:00 PM	2.4 73	11:53 AM	2.1 64	06:58 AM	8.2 250	06:21 AM	9.0 274	12:22 PM	1.4 43	01:21 PM	0.4 12
Su 06:46 PM	6.7 204	M 05:46 PM	6.9 210	W 02:26 PM	1.6 49	Th 01:59 PM	0.9 27	W 06:55 PM	6.1 186	Th 08:05 PM	6.3 192
●		11:37 PM	1.9 58	08:47 PM	6.0 183	08:35 PM	6.2 189	11:44 PM	3.7 113		
10 12:43 AM	2.1 64	25 06:09 AM	8.9 271	10 01:38 AM	4.0 122	25 01:23 AM	3.9 119	10 05:48 AM	7.9 241	25 12:58 AM	3.7 113
07:21 AM	8.6 262	01:03 PM	1.8 55	07:52 AM	8.1 247	07:30 AM	8.9 271	01:30 PM	1.6 49	06:58 AM	8.7 265
M 02:08 PM	2.0 61	Tu 07:08 PM	6.4 195	Th 03:33 PM	1.3 40	F 03:19 PM	0.5 15	Th 08:13 PM	6.0 183	F 02:42 PM	0.5 15
08:02 PM	6.3 192	●		10:02 PM	6.3 192	09:57 PM	6.5 198	●		● 09:27 PM	6.4 195
11 01:35 AM	2.8 85	26 12:32 AM	2.7 82	11 02:51 AM	4.3 131	26 02:52 AM	4.0 122	11 12:52 AM	4.2 128	26 02:27 AM	3.9 119
08:07 AM	8.6 262	07:00 AM	9.1 277	08:52 AM	8.1 247	08:48 AM	8.9 271	06:47 AM	7.6 232	08:17 AM	8.3 253
Tu 03:13 PM	1.5 46	W 02:21 PM	1.3 40	F 04:31 PM	0.9 27	Sa 04:28 PM	0.0 0	F 02:45 PM	1.5 46	Sa 04:01 PM	0.3 9
09:18 PM	6.3 192	08:40 PM	6.2 189	11:03 PM	6.8 207	11:02 PM	7.1 216	09:28 PM	6.2 189	10:40 PM	6.8 207
12 02:32 AM	3.4 104	27 01:41 AM	3.5 107	12 03:57 AM	4.3 131	27 04:10 AM	3.7 113	12 02:16 AM	4.4 134	27 03:55 AM	3.7 113
08:54 AM	8.7 265	08:00 AM	9.3 283	09:51 AM	8.3 253	10:02 AM	9.1 277	08:02 AM	7.5 229	09:42 AM	8.2 250
W 04:11 PM	1.0 30	Th 03:36 PM	0.6 18	Sa 05:20 PM	0.5 15	Su 05:26 PM	-0.5 -15	Sa 03:50 PM	1.2 37	Su 05:07 PM	0.0 0
10:27 PM	6.6 201	10:05 PM	6.6 201	11:51 PM	7.2 219	11:53 PM	7.7 235	10:29 PM	6.6 201	11:38 PM	7.4 226
13 03:30 AM	3.8 116	28 02:59 AM	3.9 119	13 04:55 AM	4.0 122	28 05:15 AM	3.1 94	13 04:31 AM	4.1 125	28 05:08 AM	3.0 91
09:40 AM	8.8 268	09:05 AM	9.6 293	10:43 AM	8.5 259	11:06 AM	9.4 287	10:16 AM	7.6 232	10:58 AM	8.3 253
Th 05:01 PM	0.6 18	F 04:42 PM	-0.1 -3	Su 06:03 PM	0.2 6	M 06:15 PM	-0.8 -24	Su 05:42 PM	0.7 21	M 06:01 PM	-0.2 -6
11:25 PM	7.0 213	11:14 PM	7.1 216								
14 04:25 AM	4.0 122	29 04:12 AM	3.9 119	14 12:32 AM	7.5 229	29 05:45 AM	3.7 113	14 12:16 AM	7.0 213	29 12:25 AM	7.9 241
09:40 AM	8.9 271	10:09 AM	9.8 299	05:45 AM	3.7 113	M 11:30 AM	8.7 265	05:32 AM	3.6 110	06:08 AM	2.1 64
F 05:47 PM	0.2 6	Sa 05:40 PM	-0.7 -21	06:41 PM	-0.1 -3	06:41 PM	-0.1 -3	M 11:18 AM	7.8 238	Tu 12:01 PM	8.5 259
								06:26 PM	0.3 9	06:47 PM	-0.4 -12
15 12:14 AM	7.4 226	30 12:11 AM	7.6 232	15 01:08 AM	7.8 238	30 12:54 AM	7.4 226	15 12:54 AM	7.4 226	30 01:05 AM	8.4 256
05:16 AM	4.1 125	05:18 AM	3.7 113	06:30 AM	3.3 101	06:23 AM	3.0 91	06:23 AM	3.0 91	07:01 AM	1.4 43
Sa 11:07 AM	9.1 277	Su 11:10 AM	10.1 308	Tu 12:13 PM	8.9 271	Tu 12:10 PM	8.2 250	Tu 12:10 PM	8.2 250	W 12:55 PM	8.6 262
06:28 PM	0.0 0	06:32 PM	-1.1 -34	07:16 PM	-0.3 -9	07:05 PM	0.0 0	07:05 PM	0.0 0	07:28 PM	-0.3 -9
		31 01:00 AM	8.1 247							31 01:42 AM	8.7 265
		06:18 AM	3.3 101							07:49 AM	0.7 21
		M 12:07 PM	10.2 311							01:45 PM	8.6 262
		07:20 PM	-1.3 -40							08:05 PM	0.0 0



StationId: 9439040
 Source: NOAA/NOS/CO-OPS
 Station Type: Primary
 Time Zone: LST_LDT
 Datum: MLLW

NOAA Tide Predictions

Astoria, OR, 2022
 (46 12.4N / 123 46.1W)

Times and Heights of High and Low Waters

April				May				June			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm
1 02:16 AM	8.9 271	16 01:39 AM	8.8 268	1 02:03 AM	9.0 274	16 01:30 AM	9.7 296	1 02:26 AM	8.7 265	16 02:40 AM	9.9 302
08:33 AM	0.2 -3	08:08 AM	-0.1 -3	08:52 AM	-0.6 -18	08:34 AM	-1.4 -43	09:45 AM	-0.6 -18	10:01 AM	-1.9 -58
F 02:31 PM	8.4 256	Sa 02:14 PM	8.0 244	Su 03:05 PM	7.5 229	M 02:58 PM	7.7 235	W 04:21 PM	7.1 216	Th 04:36 PM	7.7 235
● 08:40 PM	0.5 15	○ 08:10 PM	1.0 30	08:38 PM	2.2 67	○ 08:21 PM	2.4 73	09:27 PM	3.5 107	09:53 PM	2.9 88
2 02:47 AM	9.0 274	17 02:09 AM	9.2 280	2 02:31 AM	8.9 271	17 02:10 AM	9.9 302	2 02:58 AM	8.6 262	17 03:33 AM	9.6 293
08:33 AM	-0.1 -3	08:51 AM	-0.6 -18	09:29 AM	-0.6 -18	09:22 AM	-1.6 -49	10:19 AM	-0.4 -12	10:50 AM	-1.7 -52
Sa 03:16 PM	8.1 247	Su 03:02 PM	8.0 244	M 03:49 PM	7.4 226	Tu 03:51 PM	7.6 232	Th 05:02 PM	7.0 213	F 05:27 PM	7.7 235
09:12 PM	1.0 30	08:48 PM	1.5 46	09:13 PM	2.7 82	09:09 PM	2.7 82	10:06 PM	3.6 110	10:49 AM	2.8 85
3 03:15 AM	9.0 274	18 02:42 AM	9.5 290	3 02:58 AM	8.8 268	18 02:54 AM	9.9 302	3 03:33 AM	8.3 253	18 04:29 AM	9.0 274
08:33 AM	-0.2 -6	08:52 AM	-1.0 -30	10:04 AM	-0.4 -12	10:10 AM	-1.6 -49	10:54 AM	-0.2 -6	10:59 AM	-1.2 -37
Su 04:00 PM	7.7 235	M 03:53 PM	7.8 238	Tu 04:33 PM	7.2 219	W 04:46 PM	7.5 229	F 05:44 PM	6.9 210	Sa 06:17 PM	7.7 235
09:44 PM	1.7 52	09:27 PM	2.0 61	09:47 PM	3.1 94	09:59 PM	3.0 91	10:47 PM	3.6 110	11:49 AM	2.6 79
4 03:42 AM	8.9 271	19 03:18 AM	9.7 296	4 03:26 AM	8.6 262	19 03:41 AM	9.7 296	4 04:12 AM	8.1 247	19 05:29 AM	8.3 253
10:29 AM	-0.1 -3	10:19 AM	-1.1 -34	11:57 AM	-0.4 -15	11:01 AM	-1.4 -43	11:30 AM	0.0 0	11:38 AM	-0.7 -21
M 04:45 PM	7.3 223	Tu 04:46 PM	7.5 229	W 05:18 PM	6.9 210	Th 05:42 PM	7.4 226	Sa 06:26 PM	6.8 207	Su 07:08 PM	7.8 238
10:15 PM	2.3 70	10:09 PM	2.5 76	10:23 PM	3.4 104	10:54 PM	3.2 98	11:33 PM	3.6 110		
5 04:09 AM	8.7 265	20 03:58 AM	9.7 296	5 03:57 AM	8.4 256	20 04:34 AM	9.2 280	5 04:58 AM	7.7 235	20 12:54 AM	2.4 73
11:06 AM	0.2 6	11:09 AM	-0.9 -27	11:16 AM	0.1 3	11:55 AM	-1.0 -30	12:10 PM	0.2 6	06:34 AM	7.5 229
Tu 05:33 PM	6.9 210	W 05:45 PM	7.2 219	Th 06:06 PM	6.7 204	F 06:40 PM	7.3 223	Su 07:09 PM	6.8 207	M 01:18 PM	0.0 0
10:47 PM	2.9 88	10:56 PM	3.0 91	11:03 PM	3.7 113	11:56 PM	3.3 101			M 07:58 PM	7.9 241
6 04:37 AM	8.5 259	21 04:45 AM	9.3 283	6 04:34 AM	8.1 247	21 05:35 AM	8.6 262	6 12:29 AM	3.5 107	21 02:03 AM	2.1 64
11:46 AM	0.5 15	12:04 PM	-0.5 -15	11:57 AM	0.5 15	12:53 PM	-0.5 -15	05:52 AM	7.2 219	07:45 AM	6.8 207
W 06:25 PM	6.5 198	Th 06:49 PM	6.9 210	F 06:58 PM	6.5 198	Sa 07:40 PM	7.3 223	M 12:56 PM	0.5 15	Tu 02:10 PM	0.6 18
11:24 PM	3.4 104	11:53 PM	3.4 104	11:51 PM	3.9 119			07:54 PM	6.9 210	● 08:47 PM	8.1 247
7 05:10 AM	8.1 247	22 05:40 AM	8.8 268	7 05:19 AM	7.7 235	22 01:07 AM	3.2 98	7 01:34 AM	3.2 98	22 03:13 AM	1.5 46
12:33 PM	0.9 27	01:10 PM	-0.1 -3	12:48 PM	0.8 24	06:45 AM	7.9 241	06:59 AM	6.7 204	09:00 AM	6.3 192
Th 07:26 PM	6.2 189	F 07:59 PM	6.8 207	Sa 07:55 PM	6.4 195	Su 01:55 PM	0.0 0	Tu 01:47 PM	0.8 24	W 03:03 PM	1.3 40
						● 08:38 PM	7.5 229	● 08:39 PM	7.2 219	09:35 PM	8.3 253
8 12:12 AM	3.9 119	23 01:06 AM	3.7 113	8 12:54 AM	4.0 122	23 02:24 AM	2.9 88	8 02:45 AM	2.7 82	23 04:18 AM	0.9 27
05:54 AM	7.7 235	06:50 AM	8.2 250	06:17 AM	7.2 219	08:02 AM	7.3 223	08:18 AM	6.3 192	10:13 AM	6.2 189
F 01:34 PM	1.3 40	Sa 02:23 PM	0.2 6	Su 01:47 PM	1.0 30	M 02:55 PM	0.4 12	W 02:42 PM	1.1 34	Th 03:56 PM	1.8 55
08:35 PM	6.1 186	● 09:09 PM	6.9 210	08:51 PM	6.5 198	09:33 PM	7.8 238	09:22 PM	7.6 232	10:20 PM	8.4 258
9 01:20 AM	4.2 128	24 02:31 AM	3.5 107	9 02:11 AM	3.8 116	24 03:38 AM	2.2 67	9 03:51 AM	1.9 58	24 05:15 AM	0.3 9
06:53 AM	7.3 223	08:12 AM	7.7 235	07:32 AM	6.8 207	09:21 AM	6.9 210	09:39 AM	6.2 189	11:20 AM	6.3 192
Sa 02:47 PM	1.4 43	Su 03:33 PM	0.3 9	M 02:50 PM	1.0 30	Tu 03:52 PM	0.7 21	Th 03:37 PM	1.5 46	F 04:46 PM	2.3 70
● 09:44 PM	6.3 192	10:11 PM	7.3 223	● 09:43 PM	6.8 207	10:22 PM	8.2 250	10:05 PM	8.1 247	11:02 PM	8.6 262
10 02:44 AM	4.2 128	25 03:52 AM	3.0 91	10 03:25 AM	3.3 101	25 04:42 AM	1.4 43	10 04:51 AM	1.0 30	25 06:06 AM	-0.2 -6
08:14 AM	7.0 213	09:35 AM	7.5 229	08:55 AM	6.6 201	10:33 AM	6.8 207	10:53 AM	6.3 192	12:19 PM	6.5 198
Su 03:54 PM	1.2 37	M 04:34 PM	0.3 9	Tu 03:47 PM	1.0 30	W 04:42 PM	1.0 30	F 04:31 PM	1.9 58	Sa 05:35 PM	2.7 82
10:42 PM	6.6 201	11:04 PM	7.8 238	10:28 PM	7.2 219	11:06 PM	8.5 259	10:47 PM	8.7 265	11:42 PM	8.7 265
11 04:01 AM	3.8 116	26 04:59 AM	2.1 64	11 04:29 AM	2.5 76	26 05:38 AM	0.6 18	11 05:46 AM	0.0 0	26 06:52 AM	-0.6 -18
09:37 AM	7.0 213	10:49 AM	7.6 232	10:12 AM	6.7 204	11:36 AM	6.9 210	12:00 PM	6.6 201	01:11 PM	6.8 207
M 04:50 PM	0.9 27	Tu 05:26 PM	0.3 9	W 04:38 PM	1.0 30	Th 05:28 PM	1.4 43	Sa 05:23 PM	2.2 67	Su 06:21 PM	3.0 91
11:27 PM	7.0 213	11:48 PM	8.3 253	11:07 PM	7.8 238	11:45 PM	8.8 268	11:30 PM	9.2 280		
12 05:03 AM	3.1 94	27 05:56 AM	1.2 37	12 05:23 AM	1.6 49	27 06:27 AM	-0.1 -3	12 06:38 AM	-0.8 -24	27 12:19 AM	8.7 265
10:47 AM	7.2 219	11:51 AM	7.7 235	11:18 AM	6.9 210	12:32 PM	7.0 213	01:00 PM	7.0 213	07:34 AM	-0.7 -21
Tu 05:37 PM	0.6 18	W 06:10 PM	0.4 12	Th 05:24 PM	1.1 34	F 06:11 PM	1.8 55	Su 06:16 PM	2.6 79	M 01:58 PM	7.0 213
				11:42 PM	8.3 253					07:06 PM	3.2 98
13 12:05 AM	7.5 229	28 12:27 AM	8.7 265	13 06:13 AM	0.6 18	28 12:21 AM	8.9 271	13 12:15 AM	9.6 293	28 12:56 AM	8.7 265
05:55 AM	2.3 70	06:46 AM	0.5 15	12:17 PM	7.2 219	07:12 AM	-0.5 -15	07:30 AM	-1.4 -43	08:14 AM	-0.8 -24
W 11:45 AM	7.5 229	Th 12:45 PM	7.7 235	F 06:08 PM	1.4 43	Sa 01:23 PM	7.1 216	M 01:57 PM	7.2 219	Tu 02:42 PM	7.1 216
06:18 PM	0.5 15	06:51 PM	0.7 21			06:52 PM	2.3 70	07:09 PM	2.8 85	07:50 PM	3.3 101
14 12:38 AM	7.9 241	29 01:02 AM	8.9 271	14 12:17 AM	8.8 268	29 12:54 AM	9.0 274	14 01:01 AM	9.9 302	29 01:31 AM	8.6 262
06:42 AM	1.4 43	07:31 AM	-0.1 -3	07:00 AM	-0.2 -6	07:53 AM	-0.8 -24	08:21 AM	-1.8 -55	08:51 AM	-0.8 -24
Th 12:37 PM	7.8 238	F 01:34 PM	7.7 235	Sa 01:12 PM	7.4 226	Su 02:10 PM	7.2 219	Tu 02:51 PM	7.5 229	W 03:23 PM	7.1 216
06:56 PM	0.5 15	07:28 PM	1.2 37	06:51 PM	1.7 52	07:31 PM	2.7 82	○ 08:03 PM	2.9 88	● 08:32 PM	3.4 104
15 01:09 AM	8.4 256	30 01:34 AM	9.0 274	15 12:53 AM	9.3 283	30 01:25 AM	8.9 271	15 01:50 AM	10.0 305	30 02:07 AM	8.5 259
07:25 AM	0.6 18	08:13 AM	-0.5 -15	07:47 AM	-0.9 -27	08:32 AM	-0.8 -24	09:11 AM	-2.0 -61	09:27 AM	-0.8 -24
F 01:25 PM	8.0 244	Sa 02:20 PM	7.7 235	Su 02:05 PM	7.6 232	M 02:55 PM	7.2 219	W 03:44 PM	7.6 232	Th 04:01 PM	7.1 216
07:33 PM	0.7 21	● 08:04 PM	1.7 52	07:36 PM	2.1 64	● 08:10 PM	3.0 91	08:58 PM	2.9 88	09:12 PM	3.3 101
						31 01:55 AM	8.8 268				
						09:09 AM	-0.8 -24				
						Tu 03:39 PM	7.2 219				
						08:49 PM	3.3 101				

Disclaimer: These data are based upon the latest information available as of the date of your request, and may differ from the published tide tables.



StationId: 9439040
 Source: NOAA/NOS/CO-OPS
 Station Type: Primary
 Time Zone: LST_LDT
 Datum: MLLW

NOAA Tide Predictions

Astoria, OR, 2022
 (46 12.4N / 123 46.1W)

Times and Heights of High and Low Waters

July					August					September				
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	
h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	
1 02:43 AM	8.4 256	16 03:27 AM	9.3 283	1 03:49 AM	7.8 238	16 05:02 AM	7.5 229	1 05:14 AM	6.7 204	16 12:11 AM	0.2 6			
10:00 AM	-0.7 -21	11:29 AM	-1.7 -52	10:31 AM	-0.6 -18	11:14 AM	0.0 0	11:01 AM	1.1 34	06:36 AM	6.1 186			
F 04:37 PM	7.1 216	Sa 04:58 PM	7.9 241	M 04:58 PM	7.4 226	Tu 05:34 PM	8.1 247	Th 05:10 PM	8.4 256	F 11:49 AM	2.6 79			
09:51 PM	3.2 98	10:37 PM	1.8 55	10:50 PM	1.7 52	11:58 PM	0.5 15	11:55 PM	0.2 6	05:49 PM	7.6 232			
2 03:20 AM	8.2 250	17 04:21 AM	8.7 265	2 04:32 AM	7.4 226	17 05:57 AM	6.8 207	2 06:14 AM	6.2 189	17 01:06 AM	0.6 18			
10:31 AM	-0.6 -18	11:12 AM	-1.2 -37	11:00 AM	-0.2 -6	11:51 AM	0.9 27	11:40 AM	1.9 58	07:43 AM	5.8 177			
Sa 05:12 PM	7.1 216	Su 05:42 PM	8.0 244	Tu 05:26 PM	7.6 232	W 06:12 PM	8.0 244	F 05:51 PM	8.4 256	Sa 12:39 PM	3.3 101			
10:31 PM	3.0 91	11:32 PM	1.6 49	11:32 PM	1.5 46					06:34 PM	7.2 219			
3 03:59 AM	8.0 244	18 05:17 AM	7.9 241	3 05:20 AM	6.9 210	18 12:53 AM	0.6 18	3 12:56 AM	0.3 9	18 02:14 AM	0.9 27			
11:02 AM	-0.5 -15	11:53 AM	-0.6 -18	11:33 AM	0.4 12	06:59 AM	6.1 186	07:29 AM	5.7 174	08:58 AM	5.7 174			
Su 05:45 PM	7.1 216	M 06:25 PM	8.0 244	W 05:58 PM	7.8 238	Th 12:32 PM	1.8 55	Sa 12:32 PM	2.6 79	Su 01:49 PM	3.7 113			
11:13 PM	2.8 85					06:53 PM	7.7 235	06:44 PM	8.3 253	07:37 PM	6.9 210			
4 04:43 AM	7.6 232	19 12:30 AM	1.4 43	4 12:23 AM	1.2 37	19 01:55 AM	0.8 24	4 02:15 AM	0.3 9	19 03:27 AM	0.9 27			
10:31 AM	-0.2 -6	06:17 AM	7.1 216	06:19 AM	6.3 192	08:09 AM	5.6 171	08:57 AM	5.5 168	11:10 AM	5.9 180			
M 06:19 PM	7.2 219	Tu 12:35 PM	0.3 9	Th 12:12 PM	1.1 34	F 01:22 PM	2.6 79	Su 01:45 PM	3.2 98	M 03:11 PM	3.8 116			
		07:08 PM	8.0 244	06:37 PM	8.1 247	07:39 PM	7.5 229	07:51 PM	8.1 247	08:54 PM	6.7 204			
5 12:01 AM	2.6 79	20 01:32 AM	1.3 40	5 01:25 AM	1.0 30	20 03:04 AM	0.7 21	5 03:39 AM	0.1 3	20 04:32 AM	0.7 21			
05:33 AM	7.1 216	07:22 AM	6.4 195	07:34 AM	5.7 174	09:27 AM	5.5 168	10:20 AM	5.8 177	11:09 AM	6.3 192			
Tu 12:12 PM	0.2 6	W 01:21 PM	1.1 34	F 01:00 PM	1.9 58	Sa 02:26 PM	3.2 98	M 03:16 PM	3.4 104	Tu 04:23 PM	3.4 104			
06:55 PM	7.4 226	07:53 PM	8.0 244	07:25 PM	8.2 250	08:35 PM	7.3 223	09:11 PM	8.1 247	10:08 PM	6.9 210			
6 12:57 AM	2.3 70	21 02:38 AM	1.0 30	6 02:39 AM	0.7 21	21 04:12 AM	0.6 18	6 04:52 AM	-0.4 -12	21 05:25 AM	0.4 12			
06:35 AM	6.5 198	08:35 AM	5.9 180	09:01 AM	5.5 168	10:41 AM	5.8 177	11:28 AM	6.3 192	11:55 AM	6.7 204			
W 12:54 PM	0.8 24	Th 02:12 PM	1.9 58	Sa 02:03 PM	2.6 79	Su 03:38 PM	3.5 107	Tu 04:37 PM	3.0 91	W 05:21 PM	2.9 88			
07:34 PM	7.7 235	08:40 PM	8.0 244	08:22 PM	8.4 256	09:38 PM	7.3 223	10:29 PM	8.3 253	11:09 PM	7.2 219			
7 02:03 AM	1.9 58	22 03:45 AM	0.7 21	7 03:56 AM	0.2 6	22 05:12 AM	0.3 9	7 05:53 AM	-0.9 -27	22 06:08 AM	0.0 0			
07:50 AM	6.0 183	09:51 AM	5.7 174	10:27 AM	5.7 174	11:42 AM	6.1 186	12:21 PM	6.9 210	12:33 PM	7.1 216			
Th 01:45 PM	1.4 43	F 03:09 PM	2.6 79	Su 03:20 PM	3.1 94	M 04:44 PM	3.4 104	W 05:44 PM	2.4 73	Th 06:10 PM	2.2 67			
08:19 PM	8.0 244	03:30 PM	8.0 244	09:28 PM	8.6 262	10:39 PM	7.4 226	11:37 PM	8.6 262					
8 03:13 AM	1.2 37	23 04:47 AM	0.3 9	8 05:07 AM	-0.4 -12	23 06:03 AM	-0.1 -3	8 06:44 AM	-1.3 -40	23 12:00 AM	7.5 229			
09:14 AM	5.8 177	11:02 AM	5.9 180	11:40 AM	6.1 186	12:30 PM	6.5 198	01:06 PM	7.4 226	06:45 AM	-0.2 -6			
F 02:43 PM	2.0 61	Sa 04:09 PM	3.0 91	M 04:37 PM	3.1 94	Tu 05:41 PM	3.1 94	Th 06:42 PM	1.6 49	F 01:06 PM	7.4 226			
09:08 PM	8.4 256	10:19 PM	8.0 244	10:35 PM	8.8 268	11:33 PM	7.6 232			06:53 PM	1.6 49			
9 04:20 AM	0.5 15	24 05:42 AM	-0.1 -3	9 06:08 AM	-1.1 -34	24 06:46 AM	-0.4 -12	9 12:36 AM	8.8 268	24 12:45 AM	7.7 235			
10:36 AM	5.9 180	12:04 PM	6.2 189	12:40 PM	6.6 201	01:12 PM	6.9 210	07:30 AM	-1.4 -43	07:20 AM	-0.3 -9			
Sa 03:47 PM	2.5 76	Su 05:06 PM	3.2 98	Tu 05:46 PM	2.9 88	W 06:31 PM	2.7 82	F 01:47 PM	7.9 241	Sa 01:36 PM	7.7 235			
10:01 PM	8.8 268	11:08 PM	8.1 247	11:40 PM	9.1 277			07:35 PM	0.9 27	07:34 PM	1.0 30			
10 05:23 AM	-0.3 -9	25 06:30 AM	-0.4 -12	10 07:03 AM	-1.5 -46	25 12:20 AM	7.8 238	10 01:30 AM	8.9 271	25 01:27 AM	7.8 238			
11:49 AM	6.2 189	12:55 PM	6.6 201	01:31 PM	7.1 216	07:25 AM	-0.6 -18	08:11 AM	-1.3 -40	07:52 AM	-0.2 -6			
Su 04:51 PM	2.9 88	M 05:59 PM	3.3 101	W 06:48 PM	2.5 76	Th 01:48 PM	7.1 216	Sa 02:25 PM	8.2 250	Su 02:04 PM	7.9 241			
10:55 PM	9.2 280	11:53 PM	8.2 250			07:15 PM	2.3 70	08:25 PM	0.3 9	Su 02:04 PM	0.5 15			
11 06:21 AM	-1.0 -30	26 07:14 AM	-0.6 -18	11 12:39 AM	9.4 287	26 01:03 AM	8.0 244	11 02:20 AM	8.7 265	26 02:09 AM	7.9 241			
12:51 PM	6.7 204	01:40 PM	6.8 207	07:53 AM	-1.9 -58	07:59 AM	-0.8 -24	08:50 AM	-1.0 -30	08:24 AM	0.0 0			
M 05:53 PM	3.0 91	Tu 06:48 PM	3.2 98	Th 02:17 PM	7.5 229	F 02:21 PM	7.3 223	Su 03:01 PM	8.4 256	M 02:30 PM	8.2 250			
11:50 PM	9.6 293			07:45 PM	1.9 58	07:57 PM	1.9 58	09:11 PM	-0.1 -3	08:50 PM	0.0 0			
12 07:17 AM	-1.6 -49	27 12:36 AM	8.3 253	12 01:35 AM	9.4 287	27 01:42 AM	8.1 247	12 03:08 AM	8.3 253	27 02:51 AM	7.8 238			
01:47 PM	7.0 213	07:53 AM	-0.8 -24	08:39 AM	-1.9 -58	08:31 AM	-0.8 -24	09:26 AM	-0.5 -15	08:55 AM	0.4 12			
Tu 06:54 PM	2.9 88	W 02:20 PM	7.0 213	F 03:00 PM	7.8 238	Sa 02:50 PM	7.4 226	M 03:35 PM	8.5 259	Tu 02:56 PM	8.5 259			
		07:34 PM	3.0 91	08:38 PM	1.4 43	08:35 PM	1.5 46	09:56 PM	-0.3 -9	09:27 PM	-0.3 -9			
13 12:45 AM	9.8 299	28 01:17 AM	8.3 253	13 02:28 AM	9.2 280	28 02:21 AM	8.0 244	13 03:57 AM	7.8 238	28 03:34 AM	7.5 229			
08:09 AM	-1.9 -58	08:30 AM	-0.9 -27	09:21 AM	-1.8 -55	09:01 AM	-0.7 -21	10:01 AM	0.2 6	09:27 AM	0.9 27			
W 02:38 PM	7.4 226	Th 02:57 PM	7.1 216	Sa 03:41 PM	8.0 244	Su 03:17 PM	7.6 232	Tu 04:08 PM	8.4 256	W 03:24 PM	8.8 268			
07:53 PM	2.7 82	08:16 PM	2.8 85	09:29 PM	1.0 30	09:12 PM	1.1 34	10:40 PM	-0.3 -9	10:06 PM	-0.6 -18			
14 01:40 AM	9.8 299	29 01:55 AM	8.3 253	14 03:19 AM	8.8 268	29 03:00 AM	7.9 241	14 04:46 AM	7.2 219	29 04:21 AM	7.2 219			
08:59 AM	-2.1 -64	09:03 AM	-0.9 -27	10:00 AM	-1.4 -43	09:30 AM	-0.5 -15	10:34 AM	1.0 30	10:00 AM	1.5 46			
Th 03:27 PM	7.6 232	F 03:31 PM	7.2 219	Su 04:20 PM	8.1 247	M 03:43 PM	7.8 238	W 04:40 PM	8.2 250	Th 03:55 PM	8.9 271			
08:49 PM	2.4 73	08:56 PM	2.6 79	10:18 PM	0.7 21	09:49 PM	0.8 24	11:24 PM	-0.1 -3	10:48 PM	-0.6 -18			
15 02:34 AM	9.7 296	30 02:32 AM	8.2 250	15 04:10 AM	8.2 250	30 03:40 AM	7.6 232	15 05:38 AM	6.6 201	30 05:14 AM	6.8 207			
09:45 AM	-2.0 -61	09:34 AM	-0.9 -27	10:38 AM	-0.8 -24	09:58 AM	-0.1 -3	11:09 AM	1.8 55	10:37 AM	2.1 64			
F 04:13 PM	7.8 238	Sa 04:02 PM	7.2 219	M 04:57 PM	8.2 250	Tu 04:08 PM	8.0 244	Th 05:12 PM	8.0 244	F 04:33 PM	8.9 271			
09:43 PM	2.1 64	09:34 PM	2.3 70	11:07 PM	0.5 15	10:26 PM	0.5 15			11:38 PM	-0.4 -12			
		31 03:10 AM	8.1 247			31 04:24 AM	7.2 219							
		10:03 AM	-0.8 -24			10:28 AM	0.4 12							
		Su 04:30 PM	7.3 223			W 04:36 PM	8.2 250							
		10:11 PM	2.0 61			11:07 PM	0.3 9							

Disclaimer: These data are based upon the latest information available as of the date of your request, and may differ from the published tide tables.



Times and Heights of High and Low Waters

October					November					December																				
Time	Height				Time	Height				Time	Height				Time	Height														
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm											
1	06:17 AM	6.3	192		16	12:20 AM	0.6	18		1	01:42 AM	0.2	6		16	12:26 AM	1.2	37		1	01:17 AM	0.7	21		16	12:17 AM	1.4	43		
	11:23 AM	2.8	85			07:15 AM	6.2	189			08:34 AM	6.9	210			07:33 AM	6.9	210			07:59 AM	8.2	250			07:12 AM	7.7	235		
	Sa 05:19 PM	8.6	262			Su 12:06 PM	3.8	116			Tu 01:55 PM	3.7	113			W 12:59 PM	4.0	122			Th 02:06 PM	2.7	82			F 01:23 PM	3.3	101		
						05:39 PM	7.3	223			Mo 07:32 PM	7.7	235			Mo 06:15 PM	6.7	204			Mo 07:46 PM	7.2	219			Mo 06:53 PM	6.5	198		
2	12:40 AM	-0.1	-3		17	01:19 AM	1.0	30		2	02:54 AM	0.4	12		17	01:27 AM	1.4	43		2	02:17 AM	1.1	34		17	01:10 AM	1.9	58		
	07:31 AM	6.0	183			08:22 AM	6.1	186			09:38 AM	7.3	223			08:23 AM	7.1	216			08:51 AM	8.6	262			07:56 AM	8.1	247		
	Su 12:24 PM	3.3	101			M 01:16 PM	4.1	125			W 03:20 PM	3.1	94			Th 02:13 PM	3.5	107			F 03:16 PM	1.8	55			Sa 02:31 PM	2.6	79		
	06:19 PM	8.2	250			Mo 06:41 PM	6.9	210			Mo 09:00 PM	7.4	226			Mo 07:41 PM	6.5	198			Mo 09:05 PM	7.0	213			Mo 08:17 PM	6.3	192		
3	01:59 AM	0.2	6		18	02:30 AM	1.2	37		3	03:59 AM	0.4	12		18	02:24 AM	1.5	46		3	03:12 AM	1.5	46		18	02:07 AM	2.3	70		
	08:52 AM	6.0	183			09:28 AM	6.3	192			09:38 AM	7.8	238			09:08 AM	7.5	229			09:38 AM	9.0	274			08:39 AM	8.5	259		
	M 01:50 PM	3.6	110			Tu 02:39 PM	4.0	122			Th 04:31 PM	2.2	67			F 03:17 PM	2.7	82			Sa 04:15 PM	0.9	27			Su 03:33 PM	1.7	52		
	Mo 07:37 PM	7.8	238			Mo 08:05 PM	6.5	198			Mo 10:19 PM	7.4	226			Mo 08:58 PM	6.5	198			Mo 10:14 PM	7.2	219			Mo 09:36 PM	6.5	198		
4	03:21 AM	0.1	3		19	03:37 AM	1.1	34		4	04:54 AM	0.5	15		19	03:16 AM	1.6	49		4	04:02 AM	1.9	58		19	03:04 AM	2.7	82		
	10:06 AM	6.4	195			10:23 AM	6.6	201			11:18 AM	8.4	256			09:46 AM	8.0	244			10:20 AM	9.3	283			10:02 AM	9.0	274		
	Tu 03:22 PM	3.4	104			W 03:53 PM	3.5	107			F 05:31 PM	1.2	37			Sa 04:10 PM	1.8	55			Su 05:08 PM	0.2	6			M 04:28 PM	0.8	24		
	09:06 PM	7.7	235			Mo 09:29 PM	6.6	201			Mo 11:26 PM	7.6	232			Mo 10:05 PM	6.8	207			Mo 11:14 PM	7.4	226			Mo 10:44 PM	6.9	210		
5	04:31 AM	-0.1	-3		20	04:32 AM	0.9	27		5	05:41 AM	0.6	18		20	04:02 AM	1.7	52		5	04:49 AM	2.4	73		20	03:59 AM	3.1	94		
	11:05 AM	7.0	213			11:45 AM	7.1	216			11:59 AM	8.9	271			10:21 AM	8.6	262			10:58 AM	9.5	290			10:06 AM	9.6	293		
	W 04:38 PM	2.6	79			Th 04:53 PM	2.7	82			Sa 06:23 PM	0.3	9			Su 04:58 PM	0.9	27			M 05:54 PM	-0.4	-12			Tu 05:19 PM	0.0	0		
	10:26 PM	7.8	238			Mo 10:37 PM	6.8	207							Mo 11:03 PM	7.2	219								Mo 11:44 PM	7.3	223			
6	05:28 AM	-0.4	-12		21	05:17 AM	0.7	21		6	12:23 AM	7.8	238		21	04:46 AM	1.9	58		6	12:07 AM	7.6	232		21	04:52 AM	3.4	104		
	11:53 AM	7.6	232			11:45 AM	7.5	229			05:24 AM	0.9	27			10:55 AM	9.1	277			05:33 AM	2.8	85			10:51 AM	10.0	305		
	Th 05:40 PM	1.7	52			F 05:43 PM	1.9	58			Su 11:35 AM	9.2	280			M 05:43 PM	0.1	3			Tu 11:34 AM	9.6	293			W 06:09 PM	-0.7	-21		
	11:33 PM	8.1	247			Mo 11:34 PM	7.1	216			Mo 06:09 PM	-0.4	-12			Mo 11:56 PM	7.5	229			Mo 06:37 PM	-0.6	-18							
7	06:16 AM	-0.5	-15		22	05:57 AM	0.6	18		7	12:15 AM	7.9	241		22	05:28 AM	2.2	67		7	12:56 AM	7.8	238		22	12:38 AM	7.7	235		
	12:35 PM	8.1	247			12:17 PM	7.9	241			06:04 AM	1.3	40			11:29 AM	9.6	293			06:15 AM	3.2	98			05:46 AM	3.5	107		
	F 06:34 PM	0.8	24			Sa 06:27 PM	1.1	34			M 12:09 PM	9.4	287			Tu 06:27 PM	-0.6	-18			W 12:08 PM	9.6	293			Th 11:37 AM	10.4	317		
8	12:31 AM	8.3	253		23	12:24 AM	7.4	226		8	01:03 AM	7.9	241		23	12:47 AM	7.7	235		8	01:41 AM	7.9	241		23	01:30 AM	8.0	244		
	06:59 AM	-0.5	-15			06:34 AM	0.7	21			06:42 AM	1.9	58			06:12 AM	2.6	79			06:56 AM	3.5	107			06:39 AM	3.6	110		
	Sa 01:12 PM	8.5	259			Su 12:47 PM	8.4	256			Tu 12:41 PM	9.4	287			W 12:05 PM	9.9	302			Th 12:41 PM	9.5	290			F 12:25 PM	10.6	323		
	07:23 PM	0.1	3			Mo 07:08 PM	0.4	12			Mo 07:34 PM	-0.9	-27			Mo 07:11 PM	-1.1	-34			Mo 07:56 PM	-0.6	-18			Mo 07:47 PM	-1.4	-43		
9	01:22 AM	8.3	253		24	01:11 AM	7.6	232		9	01:49 AM	7.8	238		24	01:37 AM	7.9	241		9	02:25 AM	7.9	241		24	02:20 AM	8.2	250		
	07:39 AM	-0.2	-6			07:10 AM	0.9	27			07:20 AM	2.4	73			06:56 AM	2.9	88			07:37 AM	3.8	116			07:32 AM	3.5	107		
	Su 01:47 PM	8.8	268			M 01:15 PM	8.8	268			W 01:11 PM	9.3	283			Th 12:44 PM	10.2	311			F 01:14 PM	9.3	283			Sa 01:15 PM	10.6	323		
	O 08:09 PM	-0.5	-15			Mo 07:49 PM	-0.2	-6			Mo 08:12 PM	-0.9	-27			Mo 07:56 PM	-1.3	-40			Mo 08:32 PM	-0.4	-12			Mo 08:34 PM	-1.5	-46		
10	02:11 AM	8.2	250		25	01:57 AM	7.8	238		10	02:35 AM	7.7	235		25	02:28 AM	7.9	241		10	03:06 AM	7.8	238		25	03:09 AM	8.3	253		
	08:16 AM	0.3	9			07:46 AM	1.3	40			07:57 AM	2.9	88			07:42 AM	3.2	98			08:16 AM	3.9	119			08:26 AM	3.4	104		
	M 02:50 PM	8.9	271			Tu 01:44 PM	9.1	277			Th 01:41 PM	9.1	277			F 01:26 PM	10.3	314			Sa 01:47 PM	9.1	277			Su 02:06 PM	10.3	314		
	08:52 PM	-0.8	-24			Mo 08:29 PM	-0.7	-21			Mo 08:49 PM	-0.6	-18			Mo 08:43 PM	-1.4	-43			Mo 09:06 PM	-0.2	-6			Mo 09:21 PM	-1.3	-40		
11	02:58 AM	7.9	241		26	02:43 AM	7.8	238		11	03:20 AM	7.5	229		26	03:19 AM	7.9	241		11	03:47 AM	7.7	235		26	03:57 AM	8.4	256		
	08:51 AM	0.9	27			08:22 AM	1.7	52			08:33 AM	3.3	101			08:31 AM	3.4	104			08:55 AM	4.0	122			09:20 AM	3.2	98		
	Tu 02:51 PM	8.9	271			W 02:15 PM	9.4	287			F 02:11 PM	8.9	271			Sa 02:11 PM	10.1	308			Su 02:22 PM	8.8	268			M 03:00 PM	9.9	302		
	09:33 PM	-0.8	-24			Mo 09:09 PM	-1.1	-34			Mo 09:26 PM	-0.3	-9			Mo 09:31 PM	-1.2	-37			Mo 09:40 PM	0.1	3			Mo 10:07 PM	-0.9	-27		
12	03:45 AM	7.6	232		27	03:31 AM	7.7	235		12	04:06 AM	7.3	223		27	04:13 AM	7.8	238		12	04:27 AM	7.6	232		27	04:45 AM	8.4	256		
	09:25 AM	1.6	49			09:00 AM	2.2	67			09:11 AM	3.7	113			09:24 AM	3.5	107			09:36 AM	4.0	122			10:17 AM	3.0	91		
	W 03:20 PM	8.8	268</																											