



NOAA Tide Predictions

NORTH JETTY, WA, 2025

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.



StationId: 9440574
 Source: NOAA/NOS/CO-OPS
 Station Type: Subordinate
 Time Zone: LST_LDT
 Datum: MLLW

NOAA Tide Predictions

NORTH JETTY, WA, 2025
 (46 16.4N / 124 04.3W)

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 02:06 AM 07:02 AM W 12:52 PM 07:49 PM	7.0 213 3.8 116 8.8 268 -0.8 -24	16 02:34 AM 07:52 AM Th 01:48 PM 08:24 PM	7.4 226 3.0 91 7.9 241 -0.1 -3	1 02:40 AM 08:21 AM Sa 02:23 PM 08:36 PM	7.8 238 1.8 55 8.0 244 -0.1 -3	16 02:48 AM 08:47 AM Su 02:56 PM 08:40 PM	7.6 232 1.6 49 6.5 198 1.4 43	1 01:26 AM 07:19 AM Sa 01:29 PM 07:32 PM	8.0 244 0.7 21 8.1 247 -0.1 -3	16 02:34 AM 08:43 AM Su 03:02 PM 08:38 PM	7.7 235 0.7 21 6.6 201 1.5 46
2 02:42 AM 08:33 AM Th 01:37 PM 08:25 PM	7.1 216 3.5 107 8.6 262 -0.7 -21	17 03:09 AM 08:35 AM F 02:31 PM 08:54 PM	7.4 226 2.8 85 7.4 226 0.4 12	2 03:14 AM 09:09 AM Su 03:16 PM 09:11 PM	8.1 247 1.4 43 7.3 223 0.6 18	17 03:12 AM 09:24 AM M 03:40 PM 09:06 PM	7.6 232 1.6 49 6.0 183 2.1 64	2 01:59 AM 08:05 AM Su 02:20 PM 08:08 PM	8.4 256 0.3 9 7.6 232 0.6 18	17 02:56 AM 09:16 AM M 03:41 PM 09:03 PM	7.7 235 0.6 18 6.3 192 2.1 64
3 03:18 AM 08:33 AM F 02:25 PM 09:02 PM	7.2 219 3.2 98 8.2 250 -0.3 -9	18 03:41 AM 09:18 AM Sa 03:15 PM 09:23 PM	7.4 226 2.7 82 6.7 204 1.0 30	3 03:49 AM 10:03 AM M 04:15 PM 09:50 PM	8.3 253 1.2 37 6.5 198 1.5 46	18 03:37 AM 10:04 AM Tu 04:31 PM 09:35 PM	7.6 232 1.6 49 5.4 165 2.8 85	3 02:33 AM 08:53 AM M 03:14 PM 08:45 PM	8.6 262 0 0 7.0 213 1.4 43	18 03:18 AM 09:49 AM Tu 04:24 PM 09:30 PM	7.8 238 0.7 21 5.9 180 2.6 79
4 03:54 AM 09:40 PM Sa 03:18 PM 09:40 PM	7.4 226 2.8 85 7.6 232 0.2 6	19 04:12 AM 10:04 AM Su 04:04 PM 09:52 PM	7.4 226 2.6 79 6.1 186 1.7 52	4 04:30 AM 11:05 AM Tu 05:25 PM 10:35 PM	8.4 256 1.2 37 5.8 177 2.5 76	19 04:06 AM 10:53 AM W 05:35 PM 10:12 PM	7.6 232 1.8 55 4.9 149 3.5 107	4 03:10 AM 09:45 AM Tu 04:14 PM 09:25 PM	8.7 265 0.1 3 6.3 192 2.2 67	19 03:42 AM 10:24 AM W 05:12 PM 10:01 PM	7.7 235 0.8 24 5.4 165 3.2 98
5 04:32 AM 10:21 AM Su 04:19 PM 10:21 PM	7.6 232 2.5 76 6.8 207 1.0 30	20 04:43 AM 10:55 AM M 05:01 PM 10:25 PM	7.4 226 2.5 76 5.4 165 2.5 76	5 05:17 AM 12:18 PM W 06:48 PM 11:34 PM	8.4 256 1.1 34 5.3 162 3.4 104	20 04:43 AM 11:58 AM Th 06:58 PM 11:06 PM	7.4 226 1.9 58 4.7 143 4.2 128	5 03:52 AM 10:45 AM W 05:23 PM 10:14 PM	8.5 259 0.4 12 5.7 174 3.1 94	20 04:13 AM 11:06 AM Th 06:11 PM 10:40 PM	7.6 232 1.1 34 5.1 155 3.8 116
6 05:14 AM 11:27 AM M 05:31 PM 11:09 PM	7.9 241 2.1 64 6.1 186 1.8 55	21 05:17 AM 11:54 AM Tu 06:13 PM 11:07 PM	7.4 226 2.4 73 4.9 149 3.3 101	6 06:14 AM 01:37 PM Th 08:17 PM	8.2 250 0.9 27 5.3 162	21 05:34 AM 01:17 PM F 08:25 PM	7.2 219 1.8 55 4.8 146	6 04:42 AM 11:57 AM Th 06:43 PM 11:21 PM	8.1 247 0.7 21 5.3 162 3.9 119	21 04:53 AM 12:04 PM F 07:26 PM 11:35 PM	7.4 226 1.3 40 4.8 146 4.2 128
7 06:01 AM 12:41 PM Tu 06:55 PM	8.1 247 1.7 52 5.5 168	22 05:56 AM 01:02 PM W 07:36 PM	7.4 226 2.1 64 4.8 146	7 12:52 AM 07:21 AM F 02:51 PM 09:37 PM	4.1 125 8.1 247 0.5 15 5.7 174	22 12:28 AM 06:41 AM Sa 02:30 PM 09:37 PM	4.6 140 7.1 216 1.3 40 5.2 158	7 05:45 AM 01:18 PM F 08:08 PM	7.7 235 0.8 24 5.4 165	22 05:47 AM 01:23 PM Sa 08:46 PM	7.1 216 1.4 43 4.9 149
8 12:06 AM 06:53 AM W 01:55 PM 08:22 PM	2.7 82 8.3 253 1.1 34 5.5 168	23 12:04 AM 06:43 AM Th 02:10 PM 08:59 PM	4.0 122 7.4 226 1.8 55 5.0 152	8 02:14 AM 08:32 AM Sa 03:55 PM 10:39 PM	4.3 131 8.0 244 0.1 3 6.2 189	23 01:56 AM 07:57 AM Su 03:31 PM 10:30 PM	4.6 140 7.2 219 0.8 24 5.7 174	8 12:48 AM 07:03 AM Sa 02:34 PM 09:22 PM	4.2 128 7.3 223 0.6 18 5.8 177	23 01:00 AM 07:00 AM Su 02:42 PM 09:54 PM	4.5 137 6.8 207 1.2 37 5.2 158
9 01:14 AM 07:50 AM Th 03:03 PM 09:41 PM	3.4 104 8.5 259 0.4 12 5.8 177	24 01:16 AM 07:38 AM F 03:11 PM 10:07 PM	4.5 137 7.5 229 1.2 37 5.5 168	9 03:27 AM 09:39 AM Su 04:49 PM 11:29 PM	4.1 125 8.1 247 -0.3 -9 6.7 204	24 03:08 AM 09:08 AM M 04:20 PM 11:12 PM	4.3 131 7.5 229 0.2 6 6.2 189	9 03:13 AM 09:24 AM Su 04:36 PM 11:18 PM	4.0 122 7.2 219 0.3 9 6.3 192	24 02:32 AM 08:25 AM M 03:46 PM 10:45 PM	4.3 131 6.7 204 0.7 21 5.7 174
10 02:24 AM 08:49 AM F 04:04 PM 10:47 PM	3.9 119 8.7 265 -0.1 -3 6.3 192	25 02:28 AM 08:37 AM Sa 04:04 PM 11:00 PM	4.6 140 7.7 235 0.7 21 5.9 180	10 04:29 AM 10:37 AM M 05:34 PM	3.7 113 8.2 250 -0.5 -15	25 04:07 AM 10:08 AM Tu 05:04 PM 11:48 PM	3.7 113 7.9 241 -0.3 -9 6.7 204	10 04:24 AM 10:34 AM M 05:26 PM	3.5 107 7.3 223 0.0 0	25 03:45 AM 09:44 AM Tu 04:38 PM 11:26 PM	3.6 110 7.0 213 0.3 9 6.3 192
11 03:30 AM 09:46 AM Sa 04:59 PM 11:42 PM	4.1 125 8.9 271 -0.6 -18 6.7 204	26 03:31 AM 09:33 AM Su 04:51 PM 11:45 PM	4.6 140 8.0 244 0.1 3 6.4 195	11 12:12 AM 05:22 AM Tu 11:27 AM 06:14 PM	7.1 216 3.2 98 8.2 250 -0.5 -15	26 04:58 AM 11:01 AM W 05:43 PM	2.9 88 8.2 250 -0.6 -18	11 12:02 AM 05:21 AM Tu 11:31 AM 06:07 PM	6.8 207 2.8 85 7.4 226 -0.1 -3	26 04:45 AM 10:49 AM W 05:23 PM	2.7 82 7.3 223 0.0 0
12 04:32 AM 10:41 AM Su 05:49 PM	4.0 122 8.9 271 -0.8 -24	27 04:27 AM 10:25 AM M 05:34 PM	4.3 131 8.3 253 -0.3 -9	12 12:50 AM 06:09 AM W 12:13 PM 06:50 PM	7.3 223 2.7 82 8.1 247 -0.4 -12	27 12:22 AM 05:47 AM Th 11:51 AM 06:21 PM	7.1 216 2.2 67 8.4 256 -0.7 -21	12 12:40 AM 06:10 AM W 12:19 PM 06:43 PM	7.1 216 2.2 67 7.5 229 0.0 0	27 12:02 AM 05:37 AM Th 11:47 AM 06:04 PM	6.9 210 1.7 52 7.6 232 -0.1 -3
13 12:31 AM 05:28 AM M 11:32 AM 06:34 PM	7.1 216 3.8 116 8.9 271 -0.8 -24	28 12:24 AM 05:17 AM Tu 11:14 AM 06:14 PM	6.7 204 3.9 119 8.6 262 -0.7 -21	13 01:24 AM 06:52 AM Th 12:55 PM 07:21 PM	7.5 229 2.3 70 7.9 241 -0.1 -3	28 12:54 AM 06:33 AM F 12:40 PM 06:57 PM	7.6 232 1.4 43 8.3 253 -0.5 -15	13 01:13 AM 06:53 AM Th 01:02 PM 07:15 PM	7.4 226 1.6 49 7.4 226 0.2 6	28 12:36 AM 06:27 AM F 12:40 PM 06:44 PM	7.5 229 0.8 24 7.8 238 0.0 0
14 01:15 AM 06:20 AM Tu 12:20 PM 07:15 PM	7.3 223 3.5 107 8.7 265 -0.7 -21	29 01:01 AM 06:04 AM W 12:01 PM 06:51 PM	7.0 213 3.4 104 8.8 268 -0.9 -27	14 01:55 AM 07:32 AM F 01:35 PM 07:49 PM	7.5 229 2.0 61 7.5 229 0.3 9	14 01:43 AM 07:33 AM F 01:43 PM 07:45 PM	7.5 229 1.2 37 7.2 219 0.6 18	29 01:09 AM 07:15 AM Sa 01:32 PM 07:23 PM	8.1 247 0.0 0 7.7 235 0.4 12	30 01:43 AM 08:02 AM Su 02:24 PM 08:02 PM	8.5 259 -0.6 -18 7.5 229 0.9 27
15 01:56 AM 07:07 AM W 01:05 PM 07:51 PM	7.4 226 3.3 101 8.4 256 -0.5 -15	30 01:35 AM 06:50 AM Th 12:47 PM 07:27 PM	7.3 223 2.8 85 8.8 268 -0.9 -27	15 02:23 AM 08:10 AM Sa 02:15 PM 08:15 PM	7.6 232 1.8 55 7.0 213 0.8 24	15 02:10 AM 08:09 AM Sa 02:23 PM 08:12 PM	7.6 232 0.9 27 6.9 210 1.0 30	31 02:19 AM 08:49 AM M 03:17 PM	8.8 268 -1.0 -30 7.1 216 1.6 49		

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.

Referred to Station: Astoria (9439040) Time offset in mins (high: -44 low: -60) Height offset in feet (high: +0.3 low: +0.03)



StationId: 9440574
Source: NOAA/NOS/CO-OPS
Station Type: Subordinate
Time Zone: LST_LDT
Datum: MLLW

NOAA Tide Predictions

NORTH JETTY, WA, 2025
(46 16.4N / 124 04.3W)

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 02:56 AM 8.9 271 09:38 AM -0.9 -27 Tu 04:13 PM 6.7 204 09:24 PM 2.2 67	16 02:34 AM 7.8 238 09:23 AM 0.1 3 W 04:15 PM 5.8 177 09:06 PM 3.3 101	1 03:13 AM 8.6 262 10:17 AM -0.9 -27 Th 05:09 PM 6.3 192 10:03 PM 3.3 101	16 02:39 AM 7.8 238 09:43 AM -0.3 -9 F 04:52 PM 5.8 177 09:33 PM 3.8 116	1 04:47 AM 6.9 210 11:39 AM 0.0 0 Su 06:36 PM 6.4 195 11:57 PM 3.1 94	16 04:01 AM 7.2 219 10:45 AM -0.4 -12 M 05:48 PM 6.3 192 11:08 PM 2.9 88	2 03:37 AM 8.7 265 10:29 AM -0.6 -18 W 05:13 PM 6.2 189 10:10 PM 2.9 88	17 03:03 AM 7.8 238 09:58 AM 0.2 6 Th 05:02 PM 5.6 171 09:42 PM 3.6 110	2 04:04 AM 8.0 244 11:12 AM -0.4 -12 F 06:09 PM 6.1 186 11:03 PM 3.6 110	17 03:20 AM 7.6 232 10:24 AM -0.1 -3 Sa 05:38 PM 5.7 174 10:20 PM 3.8 116	2 05:50 AM 6.1 186 12:28 PM 0.5 15 M 07:26 PM 6.5 198	17 04:58 AM 6.6 201 11:28 AM 0.0 0 Tu 06:30 PM 6.5 198	3 04:23 AM 8.3 253 11:28 AM -0.1 -3 Th 06:20 PM 5.8 177 11:07 PM 3.5 107	18 03:39 AM 7.6 232 10:39 AM 0.5 15 F 05:56 PM 5.3 162 10:25 PM 3.9 119	3 05:02 AM 7.2 219 12:12 PM 0.2 6 Sa 07:11 PM 6.0 183	18 04:08 AM 7.3 223 11:10 AM 0.1 3 Su 06:27 PM 5.7 174 11:19 PM 3.7 113	3 01:05 AM 2.8 85 07:00 AM 5.5 168 Tu 01:19 PM 1.1 34 08:13 PM 6.6 201	18 12:12 AM 2.4 73 06:05 AM 6.0 183 W 12:15 PM 0.6 18 07:14 PM 6.9 210	4 05:18 AM 7.7 235 12:37 PM 0.4 12 F 07:33 PM 5.6 171	19 04:23 AM 7.3 223 11:32 AM 0.7 21 Sa 06:58 PM 5.2 158 11:24 PM 4.1 125	4 12:15 AM 3.6 110 06:12 AM 6.5 198 Su 01:16 PM 0.6 18 08:12 PM 6.1 186	19 05:06 AM 6.8 207 12:02 PM 0.3 9 M 07:17 PM 5.8 177	4 02:13 AM 2.3 70 08:14 AM 5.1 155 W 02:09 PM 1.6 49 08:57 PM 6.8 207	19 01:23 AM 1.9 58 07:23 AM 5.4 165 Th 01:09 PM 1.2 37 08:00 PM 7.3 223	5 12:20 AM 3.9 119 06:27 AM 7.0 213 Sa 01:53 PM 0.7 21 08:47 PM 5.7 174	20 05:20 AM 6.9 210 12:39 PM 0.9 27 Su 08:03 PM 5.2 158	5 01:33 AM 3.4 104 07:30 AM 6.0 183 M 02:17 PM 0.9 27 09:07 PM 6.4 195	20 12:31 AM 3.4 104 06:17 AM 6.3 192 Tu 01:00 PM 0.6 18 08:07 PM 6.2 189	5 03:16 AM 1.7 52 09:26 AM 5.0 152 Th 02:57 PM 2.1 64 09:38 PM 7.1 216	20 02:33 AM 1.1 34 08:46 AM 5.2 158 F 02:07 PM 1.8 55 08:50 PM 7.8 238	6 01:46 AM 3.9 119 07:50 AM 6.5 198 Su 03:03 PM 0.7 21 09:51 PM 6.1 186	21 12:45 AM 4.1 125 06:34 AM 6.5 198 M 01:50 PM 0.8 24 09:02 PM 5.6 171	6 02:46 AM 2.8 85 08:47 AM 5.7 174 Tu 03:11 PM 1.1 34 09:54 PM 6.7 204	21 01:47 AM 2.8 85 07:39 AM 5.9 180 W 01:59 PM 0.8 24 08:54 PM 6.7 204	6 04:10 AM 1.0 30 10:31 AM 5.1 155 F 03:44 PM 2.5 76 10:16 PM 7.3 223	21 03:40 AM 0.2 6 10:05 AM 5.3 162 Sa 03:08 PM 2.4 73 09:40 PM 8.2 250	7 03:06 AM 3.4 104 09:11 AM 6.4 195 M 04:01 PM 0.6 18 10:42 PM 6.5 198	22 02:10 AM 3.6 110 08:00 AM 6.3 192 Tu 02:54 PM 0.7 21 09:51 PM 6.1 186	7 03:49 AM 2.1 64 09:56 AM 5.7 174 W 03:57 PM 1.3 40 10:35 PM 7.1 216	22 02:57 AM 1.9 58 09:01 AM 5.8 177 Th 02:55 PM 1.1 34 09:39 PM 7.3 223	7 04:58 AM 0.4 12 11:28 AM 5.3 162 Sa 04:28 PM 2.9 88 10:51 PM 7.5 229	22 04:41 AM -0.5 -15 11:16 AM 5.6 171 Su 04:08 PM 2.8 85 10:32 PM 8.6 262	8 04:12 AM 2.7 82 10:20 AM 6.5 198 Tu 04:48 PM 0.5 15 11:23 PM 6.9 210	23 03:21 AM 2.8 85 09:21 AM 6.4 195 W 03:48 PM 0.6 18 10:33 PM 6.7 204	8 04:41 AM 1.3 40 10:55 AM 5.8 177 Th 04:38 PM 1.5 46 11:10 PM 7.3 223	23 03:59 AM 0.8 24 10:15 AM 5.9 180 F 03:48 PM 1.5 46 10:22 PM 8.0 244	8 05:42 AM 0.0 0 12:20 PM 5.6 171 Su 05:12 PM 3.2 98 11:25 PM 7.6 232	23 05:38 AM -1.1 -34 12:18 PM 5.9 180 M 05:08 PM 3.1 94 11:24 PM 8.7 265	9 05:05 AM 1.9 58 11:16 AM 6.6 201 W 05:28 PM 0.6 18 11:58 PM 7.2 219	24 04:22 AM 1.7 52 10:31 AM 6.6 201 Th 04:36 PM 0.6 18 11:11 PM 7.4 226	9 05:26 AM 0.6 18 11:47 AM 5.9 180 F 05:16 PM 1.9 58 11:41 PM 7.6 232	24 04:56 AM -0.2 -6 11:22 AM 6.1 186 Sa 04:39 PM 1.9 58 11:05 PM 8.5 259	9 06:23 AM -0.4 -12 01:07 PM 5.8 177 M 05:56 PM 3.4 104 11:59 PM 7.7 235	24 06:32 AM -1.5 -46 01:15 PM 6.2 189 Tu 06:06 PM 3.2 98	10 05:51 AM 1.3 40 12:05 PM 6.7 204 Th 06:02 PM 0.8 24	25 05:16 AM 0.6 18 11:33 AM 6.9 210 F 05:21 PM 0.8 24 11:48 PM 8.1 247	10 06:08 AM 0.1 3 12:34 PM 6.0 183 Sa 05:52 PM 2.3 70	25 05:50 AM -1.0 -30 12:23 PM 6.4 195 Su 05:30 PM 2.3 70 11:49 PM 8.9 271	10 07:02 AM -0.5 -15 01:51 PM 6.0 183 Tu 06:38 PM 3.6 110	25 12:15 AM 8.8 268 07:24 AM -1.7 -52 W 02:07 PM 6.4 195 07:03 PM 3.1 94	11 12:29 AM 7.5 229 06:32 AM 0.7 21 F 12:49 PM 6.6 201 06:35 PM 1.2 37	26 06:07 AM -0.3 -9 12:30 PM 7.0 213 Sa 06:05 PM 1.2 37	11 12:10 AM 7.7 235 06:46 AM -0.2 -6 Su 01:19 PM 6.1 186 06:28 PM 2.7 82	26 06:42 AM -1.5 -46 01:20 PM 6.5 198 M 06:22 PM 2.7 82	11 12:34 AM 7.8 238 07:41 AM -0.7 -21 W 02:34 PM 6.1 186 07:21 PM 3.7 113	26 01:06 AM 8.6 262 08:12 AM -1.7 -52 Th 02:57 PM 6.6 201 07:58 PM 3.0 91	12 12:57 AM 7.6 232 07:10 AM 0.3 9 Sa 01:31 PM 6.6 201 07:05 PM 1.6 49	27 12:25 AM 8.6 262 06:57 AM -1.1 -34 Su 01:25 PM 7.1 216 06:49 PM 1.6 49	12 12:37 AM 7.8 238 07:23 AM -0.4 -12 M 02:02 PM 6.2 189 07:03 PM 3.0 91	27 12:33 AM 9.1 277 07:34 AM -1.7 -52 Tu 02:16 PM 6.6 201 07:14 PM 2.9 88	12 01:09 AM 7.8 238 08:18 AM -0.7 -21 Th 03:14 PM 6.1 186 08:02 PM 3.7 113	27 01:57 AM 8.3 253 08:58 AM -1.5 -46 F 03:43 PM 6.6 201 08:50 PM 2.8 85	13 01:22 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201 09:10 PM 3.0 91	15 02:04 AM 7.9 241 09:07 AM -0.4 -12 Th 04:08 PM 5.9 180 08:52 PM 3.7 113	30 02:58 AM 8.3 253 10:02 AM -1.1 -34 F 04:54 PM 6.5 198 09:55 PM 3.2 98	15 03:12 AM 7.5 229 10:06 AM -0.7 -21 Su 05:10 PM 6.1 186 10:14 PM 3.2 98	30 04:28 AM 6.6 201 10:57 AM 0.0 0 M 05:50 PM 6.6 201 11:27 PM 2.3 70	31 03:50 AM 7.6 232 10:50 AM -0.6 -18 Sa 05:46 PM 6.4 195 10:53 PM 3.2 98					
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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.

Referred to Station: Astoria (9439040) Time offset in mins (high: -44 low: -60) Height offset in feet (high: +0.3 low: +0.03)



NORTH JETTY, WA, 2025
 (46 16.4N / 124 04.3W)

Times and Heights of High and Low Waters

July				August				September																																																																																			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height																																																																																
1 h m ft cm 05:24 AM 5.8 177 11:35 AM 0.6 18 Tu 06:30 PM 6.6 201	16 h m ft cm 04:52 AM 6.3 192 10:54 AM 0.1 3 W 05:42 PM 7.2 219 11:51 PM 1.3 40	1 h m ft cm 12:35 AM 1.4 43 06:59 AM 4.4 134 F 11:56 AM 2.5 76 06:37 PM 6.6 201	16 h m ft cm 12:37 AM 0.3 9 07:11 AM 4.8 146 Sa 12:00 PM 2.5 76 06:36 PM 7.5 229	1 h m ft cm 01:57 AM 1.2 37 09:07 AM 4.3 131 M 01:23 PM 4.0 122 07:26 PM 6.1 186	16 h m ft cm 02:58 AM 0.1 3 09:47 AM 5.3 162 Tu 02:43 PM 3.4 104 08:52 PM 6.6 201	2 h m ft cm 12:25 AM 2.1 64 06:26 AM 5.1 155 W 12:16 PM 1.4 43 07:10 PM 6.7 204	17 h m ft cm 05:57 AM 5.6 171 11:37 AM 0.9 27 Th 06:24 PM 7.4 226	2 h m ft cm 01:40 AM 1.3 40 08:18 AM 4.2 128 Sa 12:51 PM 3.2 98 07:25 PM 6.5 198	17 h m ft cm 01:55 AM 0.2 6 09:59 AM 4.6 140 Su 01:14 PM 3.2 98 07:42 PM 7.3 223	2 h m ft cm 03:11 AM 0.9 27 10:17 AM 4.7 143 Tu 02:47 PM 3.9 119 08:44 PM 6.2 189	17 h m ft cm 04:03 AM -0.2 -6 10:46 AM 5.8 177 W 03:56 PM 2.8 85 10:06 PM 6.7 204	3 h m ft cm 01:29 AM 1.8 55 07:36 AM 4.6 140 Th 01:01 PM 2.1 64 07:51 PM 6.7 204	18 h m ft cm 12:58 AM 0.9 27 07:14 AM 5.0 152 F 12:28 PM 1.8 55 07:14 PM 7.6 232	3 h m ft cm 02:48 AM 1.1 34 09:38 AM 4.3 131 Su 02:01 PM 3.7 113 08:21 PM 6.5 198	18 h m ft cm 03:13 AM -0.1 -3 09:59 AM 4.9 149 M 02:38 PM 3.4 104 08:57 PM 7.3 223	3 h m ft cm 04:11 AM 0.4 12 11:09 AM 5.2 158 W 03:55 PM 3.5 107 09:54 PM 6.5 198	18 h m ft cm 04:56 AM -0.4 -12 11:32 AM 6.3 192 Th 04:56 PM 2.1 64 11:07 PM 6.9 210	4 h m ft cm 02:33 AM 1.4 43 08:52 AM 4.5 137 F 01:53 PM 2.7 82 08:34 PM 6.9 210	19 h m ft cm 02:12 AM 0.5 15 08:39 AM 4.7 143 Sa 01:31 PM 2.6 79 08:10 PM 7.8 238	4 h m ft cm 03:52 AM 0.7 21 10:47 AM 4.7 143 M 03:13 PM 3.8 116 09:22 PM 6.7 204	19 h m ft cm 04:21 AM -0.5 -15 11:05 AM 5.4 165 Tu 03:54 PM 3.2 98 10:08 PM 7.4 226	4 h m ft cm 05:00 AM -0.2 -6 11:50 AM 5.6 171 Th 04:51 PM 2.9 88 10:53 PM 6.9 210	19 h m ft cm 05:40 AM -0.5 -15 12:12 PM 6.7 204 F 05:46 PM 1.4 43 11:59 PM 7.0 213	5 h m ft cm 03:33 AM 0.9 27 10:05 AM 4.6 140 Sa 02:50 PM 3.2 98 09:19 PM 7.0 213	20 h m ft cm 03:24 AM 0.0 0 10:01 AM 4.9 149 Su 02:43 PM 3.1 94 09:11 PM 7.9 241	5 h m ft cm 04:47 AM 0.2 6 11:41 AM 5.1 155 Tu 04:16 PM 3.7 113 10:19 PM 6.9 210	20 h m ft cm 05:18 AM -0.9 -27 11:58 AM 5.9 180 W 04:59 PM 2.8 85 11:11 PM 7.5 229	5 h m ft cm 05:42 AM -0.6 -18 12:25 PM 6.0 183 F 05:40 PM 2.1 64 11:45 PM 7.2 219	20 h m ft cm 06:18 AM -0.4 -12 12:47 PM 7.0 213 Sa 06:32 PM 0.8 24	6 h m ft cm 04:27 AM 0.5 15 11:09 AM 4.9 149 Su 03:46 PM 3.5 107 10:04 PM 7.2 219	21 h m ft cm 04:31 AM -0.6 -18 11:13 AM 5.3 162 M 03:54 PM 3.3 101 10:13 PM 8.1 247	6 h m ft cm 05:35 AM -0.3 -9 12:26 PM 5.5 168 W 05:11 PM 3.4 104 11:12 PM 7.2 219	21 h m ft cm 06:07 AM -1.1 -34 12:43 PM 6.3 192 Th 05:56 PM 2.2 67	6 h m ft cm 06:20 AM -0.9 -27 12:57 PM 6.4 195 Sa 06:26 PM 1.4 43	21 h m ft cm 12:45 AM 6.9 210 06:53 AM -0.2 -6 Su 01:18 PM 7.1 216 07:13 PM 0.3 9	7 h m ft cm 05:15 AM 0.0 0 12:03 PM 5.3 162 M 04:40 PM 3.7 113 10:48 PM 7.3 223	22 h m ft cm 05:30 AM -1.1 -34 12:12 PM 5.7 174 Tu 05:00 PM 3.2 98 11:13 PM 8.2 250	7 h m ft cm 06:17 AM -0.7 -21 10:05 PM 5.8 177 Th 06:01 PM 3.0 91	22 h m ft cm 12:05 AM 7.6 232 06:50 AM -1.2 -37 F 01:23 PM 6.6 201 06:46 PM 1.7 52	7 h m ft cm 12:33 AM 7.4 226 06:56 AM -0.9 -27 Su 01:28 PM 6.9 210 07:11 PM 0.7 21	22 h m ft cm 01:28 AM 6.8 207 07:24 AM 0.3 9 M 01:46 PM 7.2 219 07:51 PM 0.0 0	8 h m ft cm 06:00 AM -0.3 -9 12:51 PM 5.6 171 Tu 05:31 PM 3.7 113 11:32 PM 7.5 229	23 h m ft cm 06:23 AM -1.4 -43 01:04 PM 6.1 186 W 06:00 PM 2.9 88	8 h m ft cm 12:00 AM 7.5 229 06:56 AM -1.1 -34 F 01:40 PM 6.1 186 06:47 PM 2.5 76	23 h m ft cm 12:54 AM 7.5 229 07:28 AM -1.1 -34 Sa 01:59 PM 6.8 207 07:31 PM 1.2 37	8 h m ft cm 01:20 AM 7.5 229 07:31 AM -0.7 -21 M 01:58 PM 7.3 223 07:55 PM 0.0 0	23 h m ft cm 02:09 AM 6.5 198 07:53 AM 0.8 24 Tu 02:11 PM 7.3 223 08:27 PM -0.1 -3	9 h m ft cm 06:43 AM -0.6 -18 01:34 PM 5.9 180 W 06:19 PM 3.6 110	24 h m ft cm 12:09 AM 8.2 250 07:11 AM -1.5 -46 Th 01:50 PM 6.4 195 06:55 PM 2.6 79	9 h m ft cm 12:45 AM 7.6 232 07:32 AM -1.3 -40 Sa 02:13 PM 6.3 192 07:31 PM 2.0 61	24 h m ft cm 01:39 AM 7.3 223 08:02 AM -0.8 -24 Su 02:31 PM 6.9 210 08:14 PM 0.9 27	9 h m ft cm 02:08 AM 7.3 223 08:06 AM -0.3 -9 Tu 02:29 PM 7.7 235 08:39 PM -0.4 -12	24 h m ft cm 02:50 AM 6.2 189 08:21 AM 1.4 43 W 02:35 PM 7.2 219 09:31 PM -0.1 -3	10 h m ft cm 12:14 AM 7.7 235 07:22 AM -0.9 -27 Th 02:13 PM 6.0 187 07:05 PM 3.4 104	25 h m ft cm 01:00 AM 8.1 247 07:55 AM -1.5 -46 F 02:33 PM 6.6 201 07:47 PM 2.3 70	10 h m ft cm 01:30 AM 7.7 235 08:06 AM -1.3 -40 Su 02:44 PM 6.6 201 08:14 PM 1.5 46	25 h m ft cm 02:22 AM 6.9 210 08:32 AM -0.3 -9 M 03:01 PM 6.9 210 08:54 PM 0.7 21	10 h m ft cm 02:57 AM 6.9 210 08:41 AM 0.2 6 W 03:02 PM 8.0 244 09:25 PM -0.7 -21	25 h m ft cm 03:32 AM 5.9 180 08:49 AM 2.0 61 Th 02:58 PM 7.2 219 09:34 PM 0.1 3	11 h m ft cm 12:56 AM 7.8 238 07:59 AM -1.1 -34 F 02:50 PM 6.1 186 07:48 PM 3.1 94	26 h m ft cm 01:49 AM 7.8 238 08:34 AM -1.3 -40 Sa 03:12 PM 6.7 204 08:34 PM 2.0 61	11 h m ft cm 02:15 AM 7.5 229 08:39 AM -1.1 -34 M 03:15 PM 6.9 210 08:58 PM 1.0 30	26 h m ft cm 03:04 AM 6.4 195 09:01 AM 0.3 9 Tu 03:28 PM 6.9 210 09:32 PM 0.6 18	11 h m ft cm 03:49 AM 6.4 195 09:18 AM 0.9 27 Th 03:38 PM 8.1 247 10:14 PM -0.7 -21	26 h m ft cm 04:15 AM 5.5 168 09:18 AM 2.5 76 F 03:23 PM 7.1 216 10:09 PM 0.3 9	12 h m ft cm 01:38 AM 7.8 238 08:35 AM -1.2 -37 Sa 03:25 PM 6.3 192 08:31 PM 2.8 85	27 h m ft cm 02:35 AM 7.4 226 09:09 AM -0.9 -27 Su 03:48 PM 6.7 204 09:19 PM 1.7 52	12 h m ft cm 03:02 AM 7.2 219 09:12 AM -0.7 -21 Tu 03:46 PM 7.2 219 09:43 PM 0.6 18	27 h m ft cm 03:47 AM 5.9 180 09:28 AM 0.9 27 W 03:54 PM 6.9 210 10:09 PM 0.6 18	12 h m ft cm 04:47 AM 5.8 177 09:58 AM 1.7 52 F 04:19 PM 8.0 244 11:10 PM -0.4 -12	27 h m ft cm 05:04 AM 5.1 155 09:50 AM 3.1 94 Sa 03:53 PM 7.0 213 10:50 PM 0.6 18	13 h m ft cm 02:21 AM 7.7 235 09:09 AM -1.2 -37 Su 03:58 PM 6.4 195 09:15 PM 2.4 73	28 h m ft cm 03:21 AM 6.8 207 09:42 AM -0.4 -12 M 04:22 PM 6.7 204 10:04 PM 1.5 46	13 h m ft cm 03:52 AM 6.6 201 09:46 AM 0.0 0 W 04:19 PM 7.5 229 10:32 PM 0.3 9	28 h m ft cm 04:32 AM 5.4 165 09:55 AM 1.6 49 Th 04:19 PM 6.8 207 10:50 PM 0.8 24	13 h m ft cm 05:53 AM 5.3 162 10:46 AM 2.5 76 Sa 05:07 PM 7.6 232	28 h m ft cm 06:03 AM 4.8 146 10:31 AM 3.6 110 Su 04:32 PM 6.7 204 11:46 PM 1.0 30	14 h m ft cm 03:07 AM 7.4 226 09:42 AM -0.9 -27 M 04:30 PM 6.6 201 10:01 PM 2.0 61	29 h m ft cm 04:07 AM 6.2 189 10:12 AM 0.2 6 Tu 04:54 PM 6.7 204 10:49 PM 1.5 46	14 h m ft cm 04:48 AM 6.0 183 10:23 AM 0.8 24 Th 04:57 PM 7.6 232 11:29 PM 0.3 9	29 h m ft cm 05:24 AM 4.9 149 10:26 AM 2.3 70 F 04:48 PM 6.7 204 11:37 PM 1.0 30	14 h m ft cm 12:19 AM 0.0 0 07:10 AM 4.9 149 Su 11:50 AM 3.2 98 06:09 PM 7.2 219	29 h m ft cm 07:14 AM 4.6 140 11:29 AM 4.0 122 M 05:26 PM 6.3 192	15 h m ft cm 03:56 AM 6.9 210 10:17 AM -0.5 -15 Tu 05:04 PM 6.9 210 10:52 PM 1.6 49	30 h m ft cm 04:56 AM 5.5 168 10:42 AM 1.0 30 W 05:25 PM 6.7 204 11:38 PM 1.4 43	15 h m ft cm 05:53 AM 5.3 162 11:06 AM 1.7 52 F 05:41 PM 7.6 232	30 h m ft cm 06:27 AM 4.4 134 11:05 AM 3.0 91 Sa 05:26 PM 6.5 198	15 h m ft cm 01:39 AM 0.2 6 08:32 AM 4.9 149 M 01:15 PM 3.6 110 07:28 PM 6.8 207	30 h m ft cm 01:01 AM 1.1 34 08:29 AM 4.7 143 Tu 12:55 PM 4.1 125 06:41 PM 6.0 183	31 h m ft cm 05:52 AM 4.9 149 11:16 AM 1.8 55 Th 05:59 PM 6.6 201	31 h m ft cm 12:40 AM 1.2 37 07:45 AM 4.2 128 Su 12:01 PM 3.6 110 06:17 PM 6.3 192

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.

Referred to Station: Astoria (9439040) Time offset in mins (high: -44 low: -60) Height offset in feet (high: +0.3 low: +0.03)



NORTH JETTY, WA, 2025
(46 16.4N / 124 04.3W)

Times and Heights of High and Low Waters

October				November				December			
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	02:20 AM 1.0 30	16	03:31 AM 0.4 12	1	03:19 AM 0.9 27	16	03:16 AM 1.9 58	1	02:16 AM 2.2 67	16	03:13 AM 3.6 110
	09:34 AM 5.0 152		10:13 AM 6.4 195		10:07 AM 6.8 207		09:48 AM 7.7 235		08:52 AM 8.3 253		09:35 AM 8.0 244
W	02:23 PM 3.8 116	Th	03:48 PM 2.4 73	Sa	04:03 PM 1.8 55	Su	04:11 PM 0.6 18	M	03:32 PM 0.4 12	Tu	04:31 PM 0.4 12
	08:09 PM 5.9 180		09:56 PM 6.2 189		10:10 PM 6.2 189		10:34 PM 6.1 186		09:59 PM 6.2 189		11:11 PM 6.1 186
2	03:23 AM 0.6 18	17	04:20 AM 0.4 12	2	03:07 AM 1.0 30	17	03:57 AM 2.3 70	2	03:09 AM 2.6 79	17	04:00 AM 3.9 119
	11:03 AM 5.0 168		11:56 AM 6.9 210		09:44 AM 7.4 226		10:21 AM 7.9 241		09:36 AM 8.8 268		10:12 AM 8.1 247
Th	03:32 PM 3.2 98	F	04:44 PM 1.5 46	Su	03:55 PM 0.7 21	M	04:53 PM 0.1 3	Tu	04:26 PM -0.5 -15	W	05:12 PM 0.1 3
	09:27 PM 6.2 189		10:56 PM 6.4 195		10:12 PM 6.6 201		11:22 PM 6.3 192		11:01 PM 6.6 201		11:58 PM 6.4 195
3	04:14 AM 0.2 6	18	05:02 AM 0.5 15	3	03:52 AM 1.2 37	18	04:35 AM 2.7 82	3	04:02 AM 2.9 88	18	04:45 AM 4.1 125
	11:03 AM 5.0 168		11:56 AM 6.9 210		10:20 AM 8.1 247		10:52 AM 8.1 247		10:20 AM 9.3 283		10:48 AM 8.2 250
F	04:28 PM 2.3 70	Sa	05:31 PM 0.8 24	M	04:44 PM -0.3 -9	Tu	05:32 PM -0.2 -6	W	05:17 PM -1.1 -34	Th	05:52 PM -0.1 -3
	10:32 PM 6.6 201		11:47 PM 6.5 198		11:08 PM 6.8 207				11:58 PM 6.9 210		
4	04:58 AM 0.0 0	19	05:39 AM 0.8 24	4	04:36 AM 1.5 46	19	12:07 AM 6.4 195	4	04:55 AM 3.2 98	19	12:41 AM 6.7 204
	11:37 AM 6.6 201		12:05 PM 7.5 229		10:57 AM 8.7 265		05:12 AM 3.1 94		11:06 AM 9.6 293		05:29 AM 4.2 128
Sa	05:18 PM 1.3 40	Su	06:13 PM 0.2 6	Tu	05:31 PM -1.1 -34	W	11:20 AM 8.1 247	Th	06:08 PM -1.5 -46	F	11:23 AM 8.3 253
	11:28 PM 6.9 210						06:09 PM -0.4 -12				06:29 PM -0.2 -6
5	05:38 AM -0.1 -3	20	12:33 AM 6.5 198	5	12:03 AM 7.0 213	20	12:50 AM 6.5 198	5	12:52 AM 7.1 216	20	01:21 AM 6.8 207
	12:09 PM 7.2 219		06:14 AM 1.2 37		05:21 AM 1.9 58		05:49 AM 3.4 104		05:48 AM 3.4 104		06:11 AM 4.2 128
Su	06:05 PM 0.4 12	M	12:34 PM 7.7 235	W	11:35 AM 9.1 277	Th	11:49 AM 8.1 247	F	11:53 AM 9.7 296	Sa	11:59 AM 8.3 253
			06:52 PM -0.2 -6		06:19 PM -1.5 -46		● 06:44 PM -0.4 -12		06:58 PM -1.6 -49		● 07:05 PM -0.3 -9
6	12:20 AM 7.1 216	21	01:17 AM 6.5 198	6	12:56 AM 7.0 213	21	01:32 AM 6.5 198	6	01:44 AM 7.2 219	21	02:00 AM 6.8 207
	06:16 AM 0.1 3		06:46 AM 1.7 52		06:06 AM 2.4 73		06:26 AM 3.7 113		06:41 AM 3.5 107		06:51 AM 4.2 128
M	12:41 PM 7.7 235	Tu	01:01 PM 7.7 235	Th	12:15 PM 9.3 283	F	12:17 PM 8.1 247	Sa	12:42 PM 9.5 290	Su	12:35 PM 8.3 253
	06:50 PM -0.4 -12		● 07:28 PM -0.4 -12		07:08 PM -1.7 -52		07:18 PM -0.3 -9		07:47 PM -1.4 -43		07:38 PM -0.3 -9
7	01:10 AM 7.2 219	22	01:59 AM 6.4 195	7	01:49 AM 6.9 210	22	02:13 AM 6.4 195	7	02:36 AM 7.2 219	22	02:36 AM 6.8 207
	06:55 AM 0.4 12		07:18 AM 2.2 67		06:53 AM 2.8 85		07:02 AM 3.9 119		07:35 AM 3.5 107		07:31 AM 4.1 125
Tu	01:13 PM 8.2 250	W	01:26 PM 7.7 235	F	12:57 PM 9.3 283	Sa	12:48 PM 8.1 247	Su	01:33 PM 9.1 277	M	01:13 PM 8.2 250
	07:35 PM -1.1 -34		08:03 PM -0.4 -12		07:57 PM -1.5 -46		07:52 PM -0.2 -6		08:35 PM -1.0 -30		08:11 PM -0.2 -6
8	02:01 AM 7.1 216	23	02:40 AM 6.3 192	8	02:44 AM 6.8 207	23	02:54 AM 6.3 192	8	03:26 AM 7.1 216	23	03:11 AM 6.8 207
	07:33 AM 0.9 27		07:49 AM 2.7 82		07:42 AM 3.1 94		07:40 AM 4.1 125		08:29 AM 3.5 107		08:11 AM 3.9 119
W	01:48 PM 8.5 259	Th	01:50 PM 7.7 235	Sa	01:44 PM 8.9 271	Su	01:22 PM 7.9 241	M	02:25 PM 8.4 256	Tu	01:53 PM 8.0 244
	08:21 PM -1.4 -43		08:35 PM -0.3 -9		08:48 PM -1.2 -37		08:26 PM 0.0 0		09:23 PM -0.5 -15		08:44 PM -0.1 -3
9	02:53 AM 6.8 207	24	03:21 AM 6.1 186	9	03:41 AM 6.6 201	24	03:35 AM 6.2 189	9	04:17 AM 7.1 216	24	03:45 AM 6.8 207
	08:13 AM 1.5 46		08:20 AM 3.1 94		08:35 AM 3.4 104		08:19 AM 4.1 125		09:27 AM 3.5 107		08:53 AM 3.7 113
Th	02:24 PM 8.7 265	F	02:15 PM 7.7 235	Su	02:34 PM 8.4 256	M	02:00 PM 7.7 235	Tu	03:21 PM 7.7 235	W	02:37 PM 7.6 232
	09:09 PM -1.4 -43		09:08 PM -0.1 -3		09:42 PM -0.6 -18		09:03 PM 0.2 6		10:10 PM 0.1 3		09:17 PM 0.1 3
10	03:47 AM 6.5 198	25	04:04 AM 5.8 177	10	04:40 AM 6.4 195	25	04:18 AM 6.1 186	10	05:07 AM 7.1 216	25	04:19 AM 7.0 213
	08:56 AM 2.1 64		08:53 AM 3.5 107		09:36 AM 3.6 110		09:04 AM 4.2 128		10:29 AM 3.4 104		09:42 AM 3.4 104
F	03:05 PM 8.6 262	Sa	02:43 PM 7.5 229	M	03:32 PM 7.6 232	Tu	02:44 PM 7.4 226	W	04:23 PM 6.8 207	Th	03:28 PM 7.1 216
	09:59 PM -1.1 -34		09:42 PM 0.1 3		10:40 PM 0.0 0		09:43 PM 0.4 12		10:58 PM 0.8 24		09:54 PM 0.6 18
11	04:46 AM 6.1 186	26	04:50 AM 5.6 171	11	05:41 AM 6.3 192	26	05:03 AM 6.1 186	11	05:56 AM 7.1 216	26	04:56 AM 7.2 219
	09:43 AM 2.7 82		09:29 AM 3.8 116		10:46 AM 3.7 113		09:58 AM 4.1 125		11:38 AM 3.1 94		10:39 AM 3.1 94
Sa	03:51 PM 8.2 250	Su	03:18 PM 7.3 223	Tu	04:41 PM 6.8 207	W	03:38 PM 6.9 210	Th	05:33 PM 6.0 183	F	04:30 PM 6.5 198
	10:56 PM -0.6 -18		10:21 PM 0.4 12		11:43 PM 0.5 15		10:30 PM 0.7 21		● 11:49 PM 1.5 46		10:36 PM 1.2 37
12	05:51 AM 5.7 174	27	05:42 AM 5.4 165	12	06:42 AM 6.4 195	27	05:50 AM 6.2 189	12	06:45 AM 7.2 219	27	05:37 AM 7.5 229
	10:38 AM 3.3 101		10:13 AM 4.0 122		12:05 PM 3.5 107		11:05 AM 3.8 116		12:49 PM 2.7 82		11:47 AM 2.6 79
Su	04:45 PM 7.6 232	M	04:00 PM 7.0 213	W	06:00 PM 6.2 189	Th	04:45 PM 6.4 195	F	06:50 PM 5.5 168	Sa	05:44 PM 5.8 177
			11:09 PM 0.7 21		●		11:24 PM 1.0 30				● 11:26 PM 1.9 58
13	12:02 AM -0.1 -3	28	06:41 AM 5.2 158	13	12:45 AM 0.9 27	28	06:37 AM 6.5 198	13	12:41 AM 2.1 64	28	06:22 AM 7.8 238
	07:02 AM 5.5 168		11:11 AM 4.2 128		07:38 AM 6.7 204		12:21 PM 3.3 101		07:31 AM 7.4 226		12:59 PM 1.9 58
M	11:50 AM 3.7 113	Tu	04:55 PM 6.6 201	Th	01:22 PM 2.9 88	F	06:06 PM 5.9 180	Sa	01:57 PM 2.1 64	Su	07:10 PM 5.5 168
	● 05:54 PM 6.9 210				07:22 PM 5.8 177		●		08:07 PM 5.3 162		
14	01:17 AM 0.3 9	29	12:11 AM 0.9 27	14	01:42 AM 1.3 40	29	12:22 AM 1.4 43	14	01:33 AM 2.7 82	29	12:24 AM 2.6 79
	08:15 AM 5.6 171		07:43 AM 5.3 162		08:28 AM 7.0 213		07:23 AM 7.0 213		08:16 AM 7.6 232		07:12 AM 8.3 253
Tu	01:16 PM 3.6 110	W	12:30 PM 4.2 128	F	02:29 PM 2.1 64	Sa	01:32 PM 2.4 73	Su	02:55 PM 1.4 43	M	02:10 PM 1.1 34
	07:18 PM 6.4 195		● 06:08 PM 6.1 186		08:36 PM 5.8 177		07:31 PM 5.7 174		09:18 PM 5.5 168		08:36 PM 5.5 168
15	02:29 AM 0.4 12	30	01:21 AM 1.0 30	15	02:32 AM 1.5 46	30	01:20 AM 1.8 55	15	02:24 AM 3.2 98	30	01:29 AM 3.3 101
	09:20 AM 6.0 183		08:39 AM 5.6 171		09:11 AM 7.4 226		08:08 AM 7.6 232		08:57 AM 7.8 238		08:05 AM 8.7 265
W	02:40 PM 3.1 94	Th	01:54 PM 3.7 113	Sa	03:24 PM 1.3 40	Su	02:35 PM 1.4 43	M	03:46 PM 0.8 24	Tu	03:14 PM 0.3 9
	08:43 PM 6.2 189		07:35 PM 5.9 180		09:39 PM 5.9 180		08:50 PM 5.9 180		10:19 PM 5.8 177		09:51 PM 5.9 180
16	03:23 AM 0.6 18	31	02:25 AM 1.0 30							31	02:35 AM 3.7 113
	11:03 AM 5.0 168		09:27 AM 6.1 186								09:01 AM 9.1 277
Th	03:32 PM 3.2 98	F	03:04 PM 2.8 85								W 04:14 PM -0.4 -12
	09:27 PM 6.2 189		08:59 PM 6.0 183								10:59 PM 6.4 195

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Referenced to Station: Astoria (9439040) Time offset in mins (high: -44 low: -60) Height offset in feet (high: +0.3 low: +0.03)