

COLUMBIA RIVER

TO CORRECT TIME OF HIGH OR LOW WATERS FOR PORTS
GIVEN BELOW, ADD OR SUBTRACT FROM
ASTORIA (TONGUE POINT) DISTRICT TIDE TABLES.

	HIGH	LOW
ENTRANCE (NORTH JETTY)	-0:44	-1:00
ILWACO BAKER BAY, WA.....	-0:13	+0:01
CHINOOK BAKER BAY, WA.....	-0:30	-0:52
POINT ADAMS, OR	-0:25	-0:38
SKIPANON RIVER, OR	-0:13	-0:19
ASTORIA PORT DOCKS.....	-0:08	-0:03
ASTORIA (TONGUE PT), OR	00:00	00:00
HARRINGTON PT, WA	+0:21	+0:52
SKAMOKAWA, WA	+0:56	+1:45
WAUNA, OR	+1:17	+2:19
EAGLE CLIFF, WA	+1:43	+3:01
LONGVIEW, WA.....	+2:27	+4:14
KALAMA, WA	+2:54	+4:55
ST HELENS, OR	+3:31	+5:44
KELLEY PT, OR	+5:26	+7:16
VANCOUVER, WA	+5:45	+7:38

WASHINGTON - OREGON COAST

	HIGH	FT. HIGH
WEDDERBURN	-1:38	-1.8
PORT ORFORD	-1:40	-1.2
BANDON.....	-1:24	-1.5
EMPIRE	-0:35	-1.8
COOS BAY (PORT).....	+0:14	-1.1
UMPQUA RIVER, ENTRANCE	-1:07	-1.5
GARDINER.....	-0:16	-1.7
SIUSLAW RIVER, ENTRANCE	-1:18	-1.1
WALDPORT.....	-0:51	-0.8
NEWPORT.....	-1:03	-0.5
YAQUINA.....	-0:52	-0.3
TOLEDO	-0:18	-0.4
NESTUCCA BAY, ENTRANCE	-0:52	-0.9
GARIBALDI	-0:33	-0.7
NEHALEM.....	-0:30	-1.3
LONG BEACH	-1:06	-0.3
NAHCOTTA	+1:09	+1.6
SOUTH BEND	-0:05	+1.3
WILLAPA BAY	+0:12	-0.3
WESTPORT.....	-1:06	0.0
ABERDEEN	-0:01	+1.6
NEAH BAY	-0:38	-0.7

COVER PHOTO BY TONY ROBERTS

TONGUE POINT PACIFIC STANDARD TIME

TONGUE POINT PACIFIC STANDARD TIME

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Date	time	ht.	time	ht.	time	ht.	time	ht.
16 Fri	0023	L	7.3	0520	L	4.3	1106	H 9.0
17 Sat	0103	H	7.6	0608	L	4.0	1149	H 9.2
18 Sun ●	0140	H	7.8	0653	L	3.8	1230	H 9.3
19 Mon	0214	H	8.0	0735	L	3.5	1310	H 9.3
20 Tue	0245	H	8.1	0815	L	3.1	1350	H 9.2
21 Wed	0314	H	8.3	0854	L	2.7	1431	H 9.0
22 Thu	0342	H	8.5	0935	L	2.3	1515	H 8.5
23 Fri	0411	H	8.7	1020	L	2.0	1605	H 7.9
24 Sat	0444	H	9.0	1111	L	1.8	1703	H 7.2
25 Sun	0522	H	9.2	1213	L	1.6	1816	H 6.6
26 Mon ●	0609	H	9.3	1329	L	1.3	1944	H 6.2
27 Tue	0039	L	3.4	0706	H	9.3	1449	L 0.9
28 Wed	0158	L	4.0	0813	H	9.4	1602	L 0.3
29 Thu	0322	L	4.2	0924	H	9.5	1705	L -0.3
30 Fri	0435	L	4.0	1031	H	9.7	1800	L -0.8
31 Sat	0026	H	7.8	0539	L	3.5	1132	H 9.9
							1848	L -1.1

"No matter where you go, there you are." – Jeff Blank

FEBRUARY 2026

ASTORIA TIDES

TONGUE POINT PACIFIC STANDARD TIME

Date	time	ht.	time	ht.	time	ht.	time	ht.
1 Sun	○ 0111	H 8.3	0636	L 3.0	1226	H 9.9	1932	L -1.2
2 Mon	0152	H 8.6	0728	L 2.5	1316	H 9.7	2011	L -1.0
3 Tue	0231	H 8.8	0816	L 2.0	1404	H 9.4	2047	L -0.6
4 Wed	0306	H 8.9	0902	L 1.7	1450	H 8.8	2120	L -0.1
5 Thu	0340	H 9.0	0946	L 1.5	1536	H 8.2	2151	L 0.6
6 Fri	0412	H 8.9	1030	L 1.5	1624	H 7.5	2221	L 1.4
7 Sat	0443	H 8.8	1116	L 1.5	1718	H 6.8	2253	L 2.3
8 Sun	0515	H 8.7	1209	L 1.7	1821	H 6.2	2330	L 3.1
9 Mon	● 0553	H 8.4	1313	L 1.8	1937	H 5.9	....	....
10 Tue	0021	L 3.9	0639	H 8.2	1425	L 1.7	2100	H 5.9
11 Wed	0133	L 4.4	0739	H 8.1	1535	L 1.4	2215	H 6.3
12 Thu	0253	L 4.5	0846	H 8.1	1633	L 1.0	2311	H 6.7
13 Fri	0402	L 4.4	0950	H 8.3	1721	L 0.5	2355	H 7.1
14 Sat	0500	L 4.0	1045	H 8.5	1803	L 0.1	....	....
15 Sun	0033	H 7.5	0549	L 3.5	1133	H 8.8	1839	L -0.2

Date	time	ht.	time	ht.	time	ht.	time	ht.	time	ht.
16 Mon	0106	H	7.8	0634	L	2.9	1218	H	9.0	L
17 Tue	0137	H	8.1	0717	L	2.4	1300	H	9.0	L
18 Wed	0205	H	8.4	0757	L	1.8	1343	H	8.9	L
19 Thu	0232	H	8.7	0837	L	1.3	1426	H	8.7	L
20 Fri	0259	H	9.0	0918	L	0.9	1513	H	8.2	L
21 Sat	0329	H	9.3	1002	L	0.6	1604	H	7.7	L
22 Sun	0403	H	9.5	1051	L	0.6	1703	H	7.0	L
23 Mon	0443	H	9.5	1152	L	0.7	1815	H	6.4	L
24 Tue	0533	H	9.3	1308	L	0.8	1940	H	6.1	....
25 Wed	0023	L	3.8	0638	H	9.0	1433	L	0.7	H
26 Thu	0155	L	4.2	0757	H	8.8	1548	L	0.3	H
27 Fri	0323	L	4.0	0919	H	8.8	1650	L	-0.2	H
28 Sat	0435	L	3.4	1029	H	9.0	1741	L	-0.5	....

"I failed over and over and over again in my life and that is why I succeeded." – Michael Jordan

TONGUE POINT PACIFIC STANDARD TIME

TONGUE POINT PACIFIC STANDARD TIME

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Date	time	ht.	time	ht.	time	ht.	time	ht.	time	ht.		
16 Mon	0049	H	7.5	0625	L	2.6	1214	H	8.2	1859	L	0.1
17 Tue	0120	H	7.9	0711	L	1.8	1302	H	8.4	1934	L	0.0
18 Wed	0150	H	8.3	0754	L	1.1	1348	H	8.5	2008	L	0.2
19 Thu	0218	H	8.7	0836	L	0.4	1435	H	8.4	2042	L	0.5
20 Fri ●	0247	H	9.2	0918	L	-0.1	1522	H	8.2	2117	L	1.0
21 Sat	0318	H	9.5	1001	L	-0.4	1612	H	7.9	2152	L	1.6
22 Sun	0352	H	9.7	1047	L	-0.5	1706	H	7.4	2231	L	2.2
23 Mon	0430	H	9.7	1138	L	-0.3	1806	H	6.9	2315	L	2.9
24 Tue	0516	H	9.4	1239	L	0.1	1917	H	6.5	....	....	....
25 Wed ☐	0012	L	3.5	0613	H	8.9	1354	L	0.4	2035	H	6.4
26 Thu	0130	L	3.9	0726	H	8.4	1514	L	0.5	2152	H	6.6
27 Fri	0302	L	3.8	0852	H	8.0	1625	L	0.3	2256	H	7.1
28 Sat	0423	L	3.2	1015	H	8.0	1723	L	0.1	2346	H	7.7
29 Sun	0529	L	2.4	1123	H	8.1	1811	L	-0.1	....	....	....
30 Mon	0029	H	8.2	0625	L	1.6	1221	H	8.2	1852	L	0.0
31 Tues	0106	H	8.6	0713	L	0.8	1311	H	8.2	1929	L	0.3

"Time and tide wait for no man" — St. Marher

● -new Moon ● -first quarter ○ -full Moon ● -last quarter

APRIL 2026

TONGUE POINT DAYLIGHT SAVING TIME

ASTORIA TIDES

Date	time	ht.	time	ht.	time	ht.	time	ht.	time	ht.		
1 Wed	0139	H	8.8	0757	L	0.3	1358	H	8.1	2004	L	0.7
2 Thu ○	0210	H	9.0	0838	L	-0.1	1442	H	7.9	2037	L	1.2
3 Fri	0238	H	9.0	0916	L	-0.2	1525	H	7.7	2108	L	1.7
4 Sat	0304	H	8.9	0951	L	-0.2	1608	H	7.4	2138	L	2.3
5 Sun	0330	H	8.9	1026	L	0.0	1651	H	7.1	2209	L	2.8
6 Mon	0357	H	8.7	1101	L	0.3	1737	H	6.7	2242	L	3.2
7 Tue	0427	H	8.5	1140	L	0.6	1830	H	6.3	2321	L	3.6
8 Wed	0505	H	8.2	1228	L	1.0	1931	H	6.1	....	....	....
9 Thu	0013	L	4.0	0553	H	7.7	1331	L	1.2	2038	H	6.0
10 Fri ●	0125	L	4.2	0658	H	7.3	1443	L	1.3	2143	H	6.2
11 Sat	0251	L	4.0	0821	H	7.0	1548	L	1.1	2236	H	6.6
12 Sun	0405	L	3.4	0942	H	7.0	1642	L	0.9	2318	H	7.1
13 Mon	0505	L	2.6	1051	H	7.3	1728	L	0.7	2354	H	7.6
14 Tues	0557	L	1.7	1151	H	7.5	1810	L	0.7	....	....	....
15 Wed	0027	H	8.2	0645	L	0.7	1245	H	7.8	1850	L	0.9

Date	time	ht.	time	ht.	time	ht.	time	ht.	time	ht.
16 Thu	0059	H	8.7	0731	L	-0.1	1337	H	7.9	L
17 Fri ●	0131	H	9.2	0816	L	-0.7	1427	H	8.0	L
18 Sat	0205	H	9.6	0901	L	-1.2	1519	H	7.9	L
19 Sun	0243	H	9.9	0948	L	-1.3	1612	H	7.7	L
20 Mon	0324	H	9.9	1037	L	-1.2	1708	H	7.4	L
21 Tue	0409	H	9.6	1130	L	-0.9	1808	H	7.1	L
22 Wed	0502	H	9.1	1230	L	-0.4	1912	H	6.9	...
23 Thu	0019	L	3.5	0605	H	8.5	1336	L	0.0	H
24 Fri ○	0137	L	3.5	0722	H	7.8	1445	L	0.3	H
25 Sat	0300	L	3.1	0845	H	7.4	1548	L	0.4	H
26 Sun	0414	L	2.4	1003	H	7.2	1643	L	0.5	H
27 Mon	0516	L	1.5	1111	H	7.3	1729	L	0.7	H
28 Tue	0608	L	0.7	1208	H	7.3	1811	L	1.0	...
29 Wed	0023	H	8.7	0655	L	0.1	1300	H	7.4	L
30 Thu	0056	H	8.9	0737	L	-0.3	1347	H	7.4	L

“The man who moves a mountain begins by carrying away small stones.” — Confucius

MAY 2026

TONGUE POINT DAYLIGHT SAVING TIME

ASTORIA TIDES

Date	time	ht.	time	ht.	time	ht.	time	ht.
1 Fri	○ 0126	H 9.0	0816	L -0.6	1432	H 7.4	2002	L 2.4
2 Sat	0155	H 8.9	0854	L -0.6	1515	H 7.3	2037	L 2.8
3 Sun	0223	H 8.9	0929	L -0.5	1558	H 7.2	2112	L 3.1
4 Mon	0251	H 8.8	1003	L -0.3	1640	H 7.0	2147	L 3.4
5 Tue	0321	H 8.6	1038	L -0.1	1724	H 6.8	2224	L 3.6
6 Wed	0356	H 8.4	1114	L 0.2	1810	H 6.6	2306	L 3.7
7 Thu	0437	H 8.1	1156	L 0.4	1859	H 6.5	2357	L 3.8
8 Fri	0526	H 7.6	1245	L 0.6	1952	H 6.5	....	....
9 Sat	● 0102	L 3.7	0628	H 7.2	1342	L 0.8	2043	H 6.6
10 Sun	0218	L 3.4	0744	H 6.8	1441	L 1.0	2131	H 7.0
11 Mon	0330	L 2.8	0906	H 6.6	1537	L 1.1	2214	H 7.5
12 Tue	0433	L 1.9	1022	H 6.6	1629	L 1.3	2253	H 8.1
13 Wed	0528	L 0.9	1129	H 6.9	1717	L 1.6	2331	H 8.7
14 Thur	0619	L -0.1	1230	H 7.2	1804	L 1.9	....	....
15 Fri	0010	H 9.3	0709	L -0.9	1327	H 7.4	1852	L 2.3

Date	time	ht.	time	ht.	time	ht.	time	ht.	time	ht.
16 Sat ●	0050	H	0758	L	-1.4	L	1421	H	1940	L
17 Sun	0133	H	0848	L	-1.7	L	1515	H	2031	L
18 Mon	0218	H	0938	L	-1.8	L	1609	H	2122	L
19 Tue	0307	H	1029	L	-1.6	L	1704	H	2216	L
20 Wed	0359	H	1120	L	-1.3	L	1758	H	2314	L
21 Thu	0456	H	1213	L	-0.8	L	1854	H	....	....
22 Fri	0019	L	0600	H	8.1	H	1309	L	1949	H
23 Sat ●	0130	L	0711	H	7.4	H	1405	L	2042	H
24 Sun	0244	L	0828	H	6.8	H	1501	L	2133	H
25 Mon	0353	L	0943	H	6.5	H	1553	L	2219	H
26 Tue	0454	L	1053	H	6.5	H	1642	L	2300	H
27 Wed	0547	L	1154	H	6.6	H	1727	L	2338	H
28 Thu	0634	L	1247	H	6.8	H	1810	L	....	....
29 Fri	0014	H	0716	L	-0.6	L	1336	H	1852	L
30 Sat	0047	H	0757	L	-0.7	L	1422	H	1933	L
31 Sun ○	0119	H	0835	L	-0.7	L	1505	H	2014	L

“People who think they know everything are a great annoyance to those of us who do.” — Isaac Asimov

● -new Moon ○ -first quarter ○ -full Moon ● -last quarter

JUNE 2026

ASTORIA TIDES

TONGUE POINT DAYLIGHT SAVING TIME

Date	time	ht.	time	ht.	time	ht.	time	ht.	time	ht.				
1 Mon	0152	H	8.8	L	0911	L	-0.6	H	1547	H	7.1	2053	L	3.5
2 Tue	0225	H	8.7	L	0946	L	-0.5	H	1627	H	7.0	2132	L	3.5
3 Wed	0300	H	8.5	L	1020	L	-0.4	H	1705	H	7.0	2212	L	3.5
4 Thu	0338	H	8.3	L	1053	L	-0.3	H	1744	H	6.9	2254	L	3.4
5 Fri	0420	H	8.0	L	1128	L	-0.1	H	1822	H	6.9	2341	L	3.3
6 Sat	0508	H	7.6	L	1206	L	0.1	H	1901	H	7.0	....	....	....
7 Sun	0037	L	3.1	H	0605	H	7.0	L	1250	L	0.5	1942	H	7.2
8 Mon	0143	L	2.7	H	0715	H	6.5	L	1339	L	0.9	2025	H	7.6
9 Tue	0253	L	2.0	H	0835	H	6.2	L	1434	L	1.5	2109	H	8.1
10 Wed	0359	L	1.2	H	0957	H	6.1	L	1531	L	2.0	2155	H	8.6
11 Thu	0500	L	0.3	H	1112	H	6.3	L	1629	L	2.4	2242	H	9.1
12 Fri	0557	L	-0.5	H	1219	H	6.6	L	1726	L	2.8	2331	H	9.5
13 Sat	0652	L	-1.2	H	1319	H	7.0	L	1824	L	3.0	....	....	....
14 Sun	0021	H	9.9	L	0746	L	-1.7	H	1415	H	7.3	1921	L	3.1
15 Mon	0112	H	10.0	L	0838	L	-1.9	H	1508	H	7.5	2019	L	3.0

Date	time	ht.	time	ht.	time	ht.	time	ht.	time	ht.
16 Tue	0205	H	9.9	0928	L	-2.0	1559	H	7.6	L
17 Wed	0258	H	9.7	1016	L	-1.8	1648	H	7.8	L
18 Thu	0353	H	9.2	1102	L	-1.5	1735	H	7.8	L
19 Fri	0449	H	8.5	1147	L	-0.9	1822	H	7.9	....
20 Sat	0006	L	2.2	0548	H	7.7	1232	L	-0.3	H
21 Sun	0109	L	2.0	0653	H	6.9	1319	L	0.5	H
22 Mon	0216	L	1.6	0803	H	6.3	1408	L	1.2	H
23 Tue	0323	L	1.2	0918	H	5.9	1459	L	1.9	H
24 Wed	0426	L	0.7	1031	H	5.9	1553	L	2.5	H
25 Thu	0521	L	0.2	1137	H	6.1	1646	L	3.0	H
26 Fri	0611	L	-0.2	1234	H	6.4	1737	L	3.3	H
27 Sat	0656	L	-0.5	1324	H	6.7	1825	L	3.4	....
28 Sun	0016	H	8.6	0738	L	-0.6	1408	H	6.9	L
29 Mon	0055	H	8.6	0817	L	-0.7	1449	H	7.0	L
30 Tue	0133	H	8.6	0853	L	-0.8	1528	H	7.1	L

*“People will forget what you said, people will forget what you did,
but people will never forget how you made them feel” — Maya Angelou*

● -new Moon ○ -first quarter ○ -full Moon ○ -last quarter

JULY 2026

TONGUE POINT DAYLIGHT SAVING TIME

ASTORIA TIDES

Date	time	ht.	time	ht.	time	ht.	time	ht.	time	ht.		
1 Wed	0211	H	8.5	0927	L	-0.8	1603	H	7.1	2118	L	3.1
2 Thu	0248	H	8.4	0958	L	-0.8	1636	H	7.1	2158	L	2.9
3 Fri	0327	H	8.2	1028	L	-0.7	1707	H	7.2	2238	L	2.6
4 Sat	0409	H	7.9	1058	L	-0.5	1737	H	7.3	2321	L	2.3
5 Sun	0455	H	7.4	1130	L	-0.1	1808	H	7.6	....	....	....
6 Mon	0010	L	2.0	0549	H	6.8	1206	L	0.5	1843	H	7.8
7 Tue ☐	0108	L	1.7	0655	H	6.2	1249	L	1.2	1924	H	8.1
8 Wed	0216	L	1.2	0814	H	5.8	1341	L	1.9	2012	H	8.4
9 Thu	0329	L	0.7	0941	H	5.7	1444	L	2.6	2107	H	8.8
10 Fri	0438	L	0.0	1102	H	5.9	1555	L	3.1	2206	H	9.1
11 Sat	0542	L	-0.7	1211	H	6.3	1704	L	3.2	2307	H	9.4
12 Sun	0641	L	-1.3	1310	H	6.8	1810	L	3.1	....	....	....
13 Mon	0007	H	9.6	0735	L	-1.7	1403	H	7.2	1912	L	2.9
14 Tue ●	0104	H	9.7	0825	L	-2.0	1451	H	7.5	2010	L	2.5
15 Wed	0159	H	9.6	0912	L	-2.0	1536	H	7.8	2106	L	2.1

Date	time	ht.	time	ht.	time	ht.	time	ht.	time	ht.
16 Thu	0252	H	9.3	0955	L	-1.8	1619	H	8.0	L
17 Fri	0344	H	8.8	1035	L	-1.4	1700	H	8.1	L
18 Sat	0437	H	8.1	1113	L	-0.7	1739	H	8.2	L
19 Sun	0531	H	7.3	1151	L	0.0	1819	H	8.2	....
20 Mon	0037	L	1.1	0630	H	6.5	1229	L	0.9	1859
21 Tue	0138	L	1.1	0736	H	5.9	1313	L	1.8	1941
22 Wed	0243	L	0.9	0851	H	5.5	1405	L	2.6	2028
23 Thu	0350	L	0.7	1008	H	5.5	1506	L	3.2	2119
24 Fri	0452	L	0.4	1118	H	5.8	1611	L	3.5	2213
25 Sat	0546	L	0.0	1216	H	6.2	1711	L	3.5	2306
26 Sun	0634	L	-0.3	1304	H	6.5	1805	L	3.4	2354
27 Mon	0716	L	-0.6	1346	H	6.8	1854	L	3.1	....
28 Tue	0039	H	8.2	0754	L	-0.8	1423	H	7.0	1939
29 Wed	0120	H	8.3	0829	L	-0.9	1457	H	7.1	2021
30 Thu	0200	H	8.3	0900	L	-1.0	1527	H	7.2	2100
31 Fri	0238	H	8.2	0930	L	-0.9	1555	H	7.4	2139

"If there is no struggle, there is no progress." — Frederick Douglas

● -new Moon ○ -first quarter ○ -full Moon ● -last quarter

Date	time	ht.	time	ht.	time	ht.	time	ht.	time	ht.
16 Sun	0421	H	7.6	1035	L	-0.1	1650	H	8.3	L
17 Mon	0512	H	6.9	1108	L	0.7	1723	H	8.2	L
18 Tue	0606	H	6.3	1142	L	1.6	1757	H	8.0	....
19 Wed	0052	L	0.6	0709	H	5.7	1222	L	2.4	H
20 Thu ☾	0154	L	0.9	0822	H	5.4	1315	L	3.1	H
21 Fri	0305	L	0.9	0941	H	5.4	1426	L	3.6	H
22 Sat	0416	L	0.7	1053	H	5.7	1543	L	3.7	H
23 Sun	0515	L	0.4	1150	H	6.1	1650	L	3.4	H
24 Mon	0604	L	0.0	1234	H	6.5	1746	L	3.0	H
25 Tue	0645	L	-0.4	1312	H	6.8	1835	L	2.5	....
26 Wed	0022	H	7.9	0721	L	-0.6	1345	H	7.1	L
27 Thur	0105	H	8.0	0754	L	-0.8	1415	H	7.4	L
28 Fri ○	0147	H	8.1	0825	L	-0.7	1442	H	7.6	L
29 Sat	0227	H	8.0	0855	L	-0.5	1508	H	7.9	L
30 Sun	0309	H	7.8	0924	L	-0.2	1533	H	8.2	L
31 Mon	0353	H	7.5	0954	L	0.3	1600	H	8.5	L

"You get what you give." — J-Lo

● -new Moon ○ -first quarter ○ -full Moon ● -last quarter

SEPTEMBER 2026

TONQUE POINT DAYLIGHT SAVING TIME

ASTORIA TIDES

Date	time	ht.	time	ht.	time	ht.	time	ht.
1 Tue	0441	H	1026	L	1632	H	2320	L
2 Wed	0536	H	1102	L	1710	H	....	....
3 Thu	0015	L	0643	H	1147	L	1758	H
4 Fri	0125	L	0803	H	1248	L	1859	H
5 Sat	0250	L	0929	H	1416	L	2018	H
6 Sun	0410	L	1045	H	1548	L	2142	H
7 Mon	0515	L	1143	H	1703	L	2258	H
8 Tue	0609	L	1231	H	1805	L	....	....
9 Wed	0001	H	0656	L	1312	H	1900	L
10 Thu	0056	H	0737	L	1349	H	1949	L
11 Fri	0146	H	0815	L	1424	H	2035	L
12 Sat	0234	H	0850	L	1457	H	2119	L
13 Sun	0320	H	0924	L	1528	H	2200	L
14 Mon	0407	H	0956	L	1558	H	2240	L
15 Tue	0454	H	1028	L	1627	H	2321	L

Date	time	ht.	time	ht.	time	ht.	time	ht.
16 Wed	0545	H	6.3	1102	L	2.4	1658	H 8.0
17 Thu	0006	L	0.4	0644	H	5.9	1142	L 3.0
18 Fri	0101	L	0.8	0752	H	5.6	1236	L 3.6
19 Sat	0212	L	1.1	0907	H	5.6	1352	L 3.9
20 Sun	0327	L	1.0	1016	H	5.8	1516	L 3.7
21 Mon	0430	L	0.7	1110	H	6.2	1627	L 3.3
22 Tue	0520	L	0.4	1152	H	6.7	1723	L 2.6
23 Wed	0601	L	0.1	1227	H	7.1	1811	L 1.9
24 Thu	0001	H	7.5	0638	L	-0.1	1258	H 7.5
25 Fri	0048	H	7.7	0712	L	-0.1	1326	H 7.9
26 Sat	0132	H	7.8	0745	L	0.1	1353	H 8.3
27 Sun	0217	H	7.8	0818	L	0.5	1420	H 8.6
28 Mon	0302	H	7.7	0851	L	0.9	1449	H 9.0
29 Tues	0349	H	7.4	0926	L	1.5	1521	H 9.2
30 Wed	0441	H	7.0	1004	L	2.0	1558	H 9.2

“If my mind can conceive it, if my heart can believe it, then I can achieve it.” – Muhammad Ali

● -new Moon ○ -first quarter ○ -full Moon ○ -last quarter

OCTOBER 2026

ASTORIA TIDES

TONQUE POINT DAYLIGHT SAVING TIME

Date	time	ht.	time	ht.	time	ht.	time	ht.	time	ht.
1 Thu	0538	H	6.6	1047	L	2.6	1642	H	9.0	....
2 Fri	0003	L	-0.4	0645	H	6.2	1140	L	3.1	1736
3 Sat	0113	L	0.0	0800	H	6.1	1254	L	3.5	1846
4 Sun	0233	L	0.2	0916	H	6.3	1427	L	3.5	2014
5 Mon	0347	L	0.1	1021	H	6.7	1552	L	2.9	2141
6 Tue	0449	L	-0.1	1114	H	7.3	1701	L	2.0	2255
7 Wed	0539	L	-0.2	1158	H	7.9	1758	L	1.1	2356
8 Thu	0623	L	-0.2	1236	H	8.4	1849	L	0.2	....
9 Fri	0049	H	7.9	0703	L	0.1	1311	H	8.7	1934
10 Sat	0138	H	7.9	0740	L	0.5	1344	H	8.9	2017
11 Sun	0224	H	7.8	0815	L	1.1	1414	H	8.9	2057
12 Mon	0310	H	7.6	0849	L	1.7	1443	H	8.9	2135
13 Tue	0354	H	7.3	0923	L	2.3	1511	H	8.7	2211
14 Wed	0440	H	7.0	0956	L	2.8	1539	H	8.5	2248
15 Thu	0528	H	6.6	1032	L	3.2	1611	H	8.2	2328

Date	time	ht.	time	ht.	time	ht.	time	ht.
16 Fri	0620	H	6.3	1114	L	3.6	1649	H
17 Sat	0015	L	0.7	0720	H	6.1	1208	L
18 Sun	0115	L	1.1	0824	H	6.1	1322	L
19 Mon	0224	L	1.2	0925	H	6.3	1444	L
20 Tue	0328	L	1.1	1016	H	6.6	1555	L
21 Wed	0421	L	1.0	1058	H	7.1	1653	L
22 Thu	0506	L	0.9	1133	H	7.6	1743	L
23 Fri	0547	L	0.9	1204	H	8.2	1828	L
24 Sat	0030	H	7.4	0626	L	1.1	1234	H
25 Sun	0119	H	7.6	0704	L	1.4	1305	H
26 Mon	0208	H	7.7	0743	L	1.8	1338	H
27 Tue	0257	H	7.7	0823	L	2.2	1413	H
28 Wed	0348	H	7.6	0906	L	2.6	1453	H
29 Thu	0441	H	7.4	0952	L	3.0	1537	H
30 Fri	0538	H	7.1	1043	L	3.3	1628	H
31 Sat	0640	H	7.0	1146	L	3.5	1728	H

"A person who never made a mistake never tried anything new." – Albert Einstein

● -new Moon ○ -first quarter ○ -full Moon ● -last quarter

NOVEMBER 2026

TONQUE POINT DAYLIGHT SAVING TIME

ASTORIA TIDES

Date	time	ht.	time	ht.	time	ht.	time	ht.				
1 Sun	0058	L	-0.1	0645	H	7.0	1202	L	3.5	1742	H	7.9
Daylight Saving Time Ends 0200												
2 Mon	0106	L	0.3	0748	H	7.2	1326	L	3.2	1908	H	7.3
3 Tue	0212	L	0.5	0846	H	7.6	1444	L	2.4	2032	H	7.1
4 Wed	0310	L	0.7	0936	H	8.2	1550	L	1.5	2145	H	7.2
5 Thu	0400	L	0.9	1019	H	8.6	1646	L	0.6	2247	H	7.3
6 Fri	0445	L	1.2	1057	H	9.0	1734	L	-0.1	2341	H	7.5
7 Sat	0526	L	1.6	1132	H	9.2	1818	L	-0.6	....	....	....
8 Sun	0030	H	7.6	0605	L	2.1	1205	H	9.3	1859	L	-0.8
9 Mon	0117	H	7.6	0644	L	2.6	1235	H	9.3	1937	L	-0.8
10 Tue	0201	H	7.6	0721	L	3.0	1305	H	9.2	2014	L	-0.7
11 Wed	0245	H	7.5	0758	L	3.4	1335	H	9.0	2050	L	-0.4
12 Thu	0328	H	7.3	0835	L	3.6	1407	H	8.8	2125	L	-0.1
13 Fri	0411	H	7.1	0914	L	3.8	1441	H	8.5	2200	L	0.2
14 Sat	0456	H	6.9	0956	L	3.9	1521	H	8.1	2239	L	0.5
15 Sun	0543	H	6.8	1047	L	4.0	1608	H	7.6	2324	L	0.9

DECEMBER 2026
TONGUE POINT PACIFIC STANDARD TIME

DECEMBER 2026

ASTORIA TIDES

TONGUE POINT PACIFIC STANDARD TIME

Date	time	ht.	time	ht.	time	ht.	time	ht.	time	ht.				
1 Tue	0028	L	0.5		0708	H	8.2		1311	L	2.7	1853	H	7.1
2 Wed	0125	L	1.1		0800	H	8.4		1425	L	2.1	2014	H	6.8
3 Thu	0221	L	1.7		0849	H	8.8		1531	L	1.3	2130	H	6.7
4 Fri	0315	L	2.2		0935	H	9.1		1628	L	0.5	2236	H	6.9
5 Sat	0405	L	2.7		1016	H	9.3		1717	L	0.0	2333	H	7.2
6 Sun	0452	L	3.1		1055	H	9.4		1802	L	-0.4	....		....
7 Mon	0023	H	7.5		0537	L	3.4		1131	H	9.4	1843	L	-0.5
8 Tue	0109	H	7.7		0620	L	3.7		1206	H	9.4	1922	L	-0.5
9 Wed	0152	H	7.8		0702	L	3.9		1241	H	9.3	1959	L	-0.4
10 Thu	0233	H	7.8		0742	L	3.9		1315	H	9.2	2033	L	-0.3
11 Fri	0312	H	7.7		0821	L	3.9		1350	H	9.0	2106	L	-0.1
12 Sat	0349	H	7.6		0901	L	3.9		1426	H	8.8	2137	L	0.1
13 Sun	0425	H	7.6		0941	L	3.8		1505	H	8.4	2209	L	0.3
14 Mon	0500	H	7.6		1025	L	3.7		1549	H	8.0	2242	L	0.6
15 Tue	0536	H	7.6		1117	L	3.5		1641	H	7.4	2320	L	1.0

Date	time	ht.	time	ht.	time	ht.	time	ht.
16 Wed	0614	H	7.8	1218	L	3.2	1747	H 6.8
17 Thu	0005	L	1.6	0654	H	8.1	1327	L 2.7
18 Fri	0057	L	2.2	0738	H	8.5	1435	L 2.0
19 Sat	0156	L	2.8	0825	H	8.9	1538	L 1.1
20 Sun	0258	L	3.3	0914	H	9.4	1636	L 0.3
21 Mon	0359	L	3.6	1004	H	9.9	1731	L -0.5
22 Tue	0000	H	7.4	0459	L	3.8	1055	H 10.3
23 Wed	0054	H	7.7	0556	L	3.8	1147	H 10.5
24 Thu	0144	H	8.0	0653	L	3.6	1240	H 10.6
25 Fri	0233	H	8.3	0749	L	3.4	1332	H 10.5
26 Sat	0319	H	8.4	0843	L	3.1	1426	H 10.1
27 Sun	0405	H	8.6	0938	L	2.8	1520	H 9.4
28 Mon	0450	H	8.7	1035	L	2.6	1618	H 8.6
29 Tue	0535	H	8.8	1137	L	2.4	1721	H 7.7
30 Wed	0621	H	8.8	1244	L	2.1	1832	H 6.9
31 Thu	0034	L	1.8	0708	H	8.9	1355	L 1.8
							1947	H 6.5

Merry Christmas and a Happy New Year from the Columbia River Pilots.

● -new Moon ○ -first quarter ○ -full Moon ● -last quarter

SUNRISE AND SUNSET

ASTORIA, OREGON
LOCAL TIME

DATE	RISE	SET	DATE	RISE	SET
JANUARY			JULY		
01	0758	1640	01	0528	2110
06	0757	1645	06	0531	2109
11	0756	1651	11	0535	2106
16	0753	1658	16	0540	2102
21	0749	1705	21	0545	2058
26	0744	1712	26	0551	2052
FEBRUARY			AUGUST		
01	0738	1721	01	0558	2045
06	0731	1728	06	0604	2038
11	0724	1736	11	0610	2030
16	0716	1743	16	0616	2022
21	0708	1750	21	0622	2014
26	0659	1758	26	0629	2005
MARCH			SEPTEMBER		
01	0654	1802	01	0636	1953
06	0644	1809	06	0642	1944
11	0735	1916	11	0649	1934
16	0726	1923	16	0655	1924
21	0716	1929	21	0701	1914
26	0706	1936	26	0708	1905
APRIL			OCTOBER		
01	0655	1944	01	0714	1855
06	0645	1951	06	0721	1845
11	0636	1958	11	0727	1836
16	0627	2004	16	0734	1827
21	0618	2011	21	0741	1818
26	0609	2017	26	0748	1810
MAY			NOVEMBER		
01	0602	2024	01	0756	1701
06	0554	2030	06	0704	1654
11	0547	2037	11	0711	1647
16	0541	2043	16	0718	1642
21	0536	2048	21	0725	1637
26	0531	2054	26	0731	1634
JUNE			DECEMBER		
01	0527	2059	01	0737	1631
06	0525	2103	06	0743	1630
11	0524	2107	11	0748	1629
16	0523	2109	16	0752	1630
21	0524	2110	21	0755	1632
26	0525	2111	26	0757	1635

MOON RISE AND MOON SET

ASTORIA, OREGON
LOCAL TIME

DATE	RISE	SET	DATE	RISE	SET
JANUARY			JULY		
01	1434	0638	01	2142	0547
06	2104	1013	06	2315	1134
11	0140	1138	11	0109	1808
16	0655	1440	16	0729	2137
21	0923	2032	21	1334	2310
26	1102	0135	26	1837	0134
FEBRUARY			AUGUST		
01	1718	0748	01	2105	0815
06	2324	0924	06	2303	1431
11	0351	1138	11	0335	1913
16	0708	1703	16	1006	2052
21	0842	2324	21	1542	2326
26	1217	0423	26	1836	0342
MARCH			SEPTEMBER		
01	1614	0615	01	2032	1100
06	2214	0745	06		1637
11	0237	1017	11	0630	1838
16	0532	1556	16	1228	2038
21	0709	2230	21	1616	0016
26	1123	0311	26	1752	0611
APRIL			OCTOBER		
01	1848	0534	01	2038	1242
06		0729	06	0140	1606
11	0310	1220	11	0749	1740
16	0448	1839	16	1304	2058
21	0759	0008	21	1520	0126
26	1419	0307	26	1705	0742
MAY			NOVEMBER		
01	2003	0434	01	2330	1346
06	0000	0753	06	0424	1524
11	0214	1338	11	1004	1756
16	0405	2025	16	1304	2309
21	0936	0023	21	1436	0352
26	1537	0203	26	1831	1022
JUNE			DECEMBER		
01	2157	0452	01		1255
06	0000	1014	06	0545	1438
11	0133	1626	11	1014	1845
16	0547	2217	16	1201	
21	1219		21	1404	0526
26	1759	0133	26	2014	1013

NOTE: BLANK SPACES IN THE TABLE INDICATE
THAT A RISING OR A SETTING DID NOT OCCUR
DURING THAT 24-HR INTERVAL.

USEFUL MARINER'S MEASURES

1 FOOT = 0.3048 METERS

1 METER = 3.28 FEET

1 FATHOM = 6 FEET

1 SHACKLE OR SHOT = 15 FATHOMS

1 CABLE (INTERNATIONAL) = 1/10 NAUTICAL MILE

1/10 NM = 608 FEET

1 NM = 10 CABLES

1 STATUE MILE = 5,280 FEET

1 NAUTICAL MILE = 6076 FEET

60 NAUTICAL MILES = 1 DEGREE OF LATITUDE

1 COMPASS POINT = 11.25 DEGREES

32 POINTS = 360 DEGREES

NAUTICAL MILES X 1.15 = STATUTE MILES

STATUTE MILES X .87 = NAUTICAL MILES

1 KNOT = SPEED OF 1 NAUTICAL MILE PER HOUR

1 KNOT = 1.15 MILES PER HOUR

1 KILOGRAM = 2.2046 POUNDS

1 FOOT PER SEC = 0.592 KNOTS

FAHRENHEIT & CENTIGRADE CONVERSION

$$F = (C \times 1.8) + 32$$

$$C = (F - 32) \times .55$$

$$\text{TIME IN MINUTES} = \frac{\text{DISTANCE IN NAUTICAL MILES}}{\text{SPEED IN KNOTS}} \times 60$$

$$\text{SPEED IN KNOTS} = \frac{\text{DISTANCE IN NAUTICAL MILES}}{\text{TIME IN MINUTES}} \times 60$$

$$\text{DISTANCE IN NM} = \frac{\text{SPEED IN KNOTS} \times \text{TIME IN MINUTES}}{60}$$

BEAUFORT WIND SCALE

BEAUFORT NO.	INDICATION	MILES PER HR
0.....	CALM.....	LESS THAN 1
1.....	LIGHT AIR.....	1 - 3
2.....	LIGHT BREEZE	4 - 7
3.....	GENTLE BREEZE	8 - 12
4.....	MODERATE BREEZE	13 - 18
5.....	FRESH BREEZE.....	19 - 24
6.....	STRONG BREEZE	25 - 31
7.....	MODERATE GALE.....	32 - 38
8.....	FRESH GALE	39 - 46
9.....	STRONG GALE	47 - 54
10.....	WHOLE GALE	55 - 63
11.....	STORM	64 - 72
12 - 17.....	HURRICANE.....	73 -136

WIND CHILL TABLE

WHEN THE WIND BLOWS AT THE M.P.H. BELOW, IT
REDUCES TEMPERATURE TO:

THERMOMETER READING	CALM		5	10	15	20	25	30	35	40
	+50	50	48	40	36	32	30	28	27	26
	+40	40	37	28	22	18	16	13	11	10
	+30	30	27	16	9	4	0	-2	-4	-6
	+20	20	16	4	-5	-10	-15	-18	-20	-21
	+10	10	6	-9	-18	-25	-29	-33	-35	-37
	0	0	-5	-21	-36	-39	-44	-48	-49	-53
	-10	-10	-15	-33	-45	-53	-59	-63	-67	-69
	-20	-20	-26	-46	-58	-67	-74	-79	-82	-85
	-30	-30	-36	-58	-72	-82	-88	-94	-98	-100
	-40	-40	-47	-70	-88	-96	-104	-109	-113	-116
	-50	-50	-57	-85	-99	-110	-118	-125	-129	-132
	-60	-60	-68	-95	-112	-124	-133	-140	-145	-148

TO MEASURE SPEED OF WIND WITHOUT INSTRUMENTS:
 WHEN CALM — SMOKE RISES VERTICALLY; 1-12 MPH —
 JUST FEEL WIND ON FACE, LEAVES IN MOTION; 13-24 MPH —
 RAISES DUST OR LOOSE PAPER; SMALL BRANCHES MOVE,
 WIRES WHISTLE; 30-40 MPH — WHOLE TREES IN MOTION,
 HARD TO WALK AGAINST.

NAUTICAL MILES

NM	FEET
.01	61'
.03	122'
.05	304'
.07	425'
.08	486'
.09	547'
.10	608'
.11	668'
.12	729'
.13	790'
.14	851'
.15	911'
.16	972'
.17	1033'
.18	1093'
.19	1154'
.20	1215'
.21	1276'
.22	1337'
.23	1397'
.24	1458'
.25	1519'
.26	1580'
.27	1641'
.28	1701'
.29	1762'
.30	1823'
.32	1920'
.34	2040'
.35	2100'
.40	2340'
.45	2734'
.50	3038'
.70	4200'
.75	4557'
1	6076'

COLUMBIA RIVER MILEAGE

COLUMBIA RIVER M

ASTORIA PILOT STATION

2.6

5.2

8.7

11

13.9

16.5

18.2

19.2

22

23.5

25

30

34

36.5

39

41.7

45

47.8

51

56.3

60.2

63

67.4

71

75

2.6

5.2

8.7

11

13.9

16.5

18.2

19.2

22

23.5

25

30

34

36.5

39

41.7

45

47.8

51

56.3

60.2

63

67.4

71

75

2.6

5.2

8.7

11

13.9

16.5

18.2

19.2

22

23.5

25

30

34

36.5

39

41.7

45

47.8

51

56.3

60.2

63

67.4

71

75

2.6

5.2

8.7

11

13.9

16.5

18.2

19.2

22

23.5

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30

34

36.5

39

41.7

45

47.8

51

56.3

60.2

63

67.4

71

75

2.6

5.2

8.7

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13.9

16.5

18.2

19.2

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23.5

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56.3

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67.4

71

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2.6

5.2

8.7

11

13.9

16.5

18.2

19.2

22

23.5

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36.5

39

41.7

45

47.8

51

56.3

60.2

63

67.4

71

75

2.6

5.2

8.7

11

13.9

16.5

18.2

19.2

22

23.5

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36.5

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41.7

45

47.8

51

56.3

60.2

63

67.4

71

75

2.6

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METERS TO FEET / INCH CONVERSION TABLE

METERS	FEET	INCHES	METERS	FEET	INCHES	METERS	FEET	INCHES	METERS	FEET	INCHES
1	3	3	46	150	11	91	298	7	136	446	2
2	6	7	47	154	2	92	301	10	137	449	6
3	9	10	48	157	6	93	305	1	138	452	9
4	13	1	49	160	9	94	308	5	139	456	0
5	16	5	50	164	0	95	311	8	140	459	4
6	19	8	51	167	4	96	315	0	141	462	7
7	23	0	52	170	7	97	318	3	142	465	11
8	26	3	53	173	11	98	321	6	143	469	2
9	29	6	54	177	2	99	324	10	144	472	5
10	32	10	55	180	5	100	328	1	145	475	9
11	36	1	56	183	9	101	331	4	146	479	0
12	39	4	57	187	0	102	334	8	147	482	3
13	42	8	58	190	3	103	337	11	148	485	7
14	45	11	59	193	7	104	341	2	149	488	10
15	49	3	60	196	10	105	344	6	150	492	1
16	52	6	61	200	2	106	347	9	151	495	5
17	55	9	62	203	5	107	351	1	152	498	8
18	59	1	63	206	8	108	354	4	153	502	0
19	62	4	64	210	0	109	357	7	154	505	3
20	65	7	65	213	3	110	360	11	155	508	6
21	68	11	66	216	6	111	364	2	156	511	10
22	72	2	67	219	10	112	367	5	157	515	1
23	75	6	68	223	1	113	370	9	158	518	4
24	78	9	69	226	5	114	374	0	159	521	8
25	82	0	70	229	8	115	377	4	160	524	11
26	85	4	71	232	11	116	380	7	161	526	3
27	88	7	72	236	3	117	383	10	162	531	6
28	91	10	73	239	6	118	387	2	163	534	9
29	95	2	74	242	9	119	390	5	164	538	1
30	98	5	75	246	0	120	393	8	165	541	4
31	101	8	76	249	4	121	397	0	166	544	7
32	105	0	77	252	7	122	400	3	167	547	11
33	108	3	78	255	11	123	403	7	168	551	2
34	111	7	79	259	2	124	406	7	169	554	6
35	114	10	80	262	6	125	410	1	170	557	9
36	118	1	81	265	9	126	413	5	171	561	0
37	121	5	82	269	0	127	416	8	172	564	4
38	124	8	83	272	4	128	419	11	173	567	7
39	127	11	84	275	7	129	423	3	174	570	10
40	131	3	85	278	10	130	426	6	175	574	2
41	134	6	86	282	2	131	429	9	176	577	5
42	137	10	87	285	5	132	433	1	177	580	8
43	141	1	88	288	9	133	436	4	178	584	0
44	144	4	89	292	0	134	439	8	179	587	3
45	147	8	90	295	3	135	442	11	180	590	7

METERS TO FEET / INCH CONVERSION TABLE

METERS	FEET	INCHES	METERS	FEET	INCHES	METERS	FEET	INCHES	METERS	FEET	INCHES
181	593	10	226	741	6	271	889	1	316	1036	9
182	597	1	227	744	9	272	892	5	317	1040	0
183	600	5	228	748	0	273	895	8	318	1043	4
184	603	8	229	751	4	274	898	11	319	1046	7
185	606	11	230	754	7	275	902	3	320	1049	10
186	610	3	231	757	10	276	905	6	321	1053	2
187	613	6	232	761	2	277	908	9	322	1056	5
188	616	10	233	764	5	278	912	1	323	1059	9
189	620	1	234	767	9	279	915	4	324	1063	0
190	623	4	235	771	0	280	918	8	325	1066	3
191	626	8	236	774	3	281	921	11	326	1069	7
192	629	11	237	777	7	282	925	2	327	1072	10
193	633	2	238	780	10	283	928	6	328	1076	1
194	636	6	239	784	1	284	931	9	329	1079	5
195	639	9	240	787	5	285	935	0	330	1082	8
196	643	0	241	790	8	286	938	4	331	1085	11
197	646	4	242	794	0	287	941	7	332	1089	3
198	649	7	243	797	3	288	944	11	333	1092	6
199	652	11	244	800	6	289	948	2	334	1095	10
200	656	2	245	803	10	290	951	5	335	1099	1
201	659	5	246	807	1	291	954	9	336	1102	4
202	662	9	247	810	4	292	958	0	337	1105	8
203	666	0	248	813	8	293	961	3	338	1108	11
204	669	3	249	816	11	294	964	7	339	1112	2
205	672	7	250	820	2	295	967	10	340	1115	6
206	675	10	251	823	6	296	971	2	341	1118	9
207	679	2	252	826	9	297	974	5	342	1122	1
208	682	5	253	830	0	298	977	8	343	1125	4
209	685	8	254	833	4	299	981	0	344	1128	7
210	689	0	255	836	7	300	984	3	345	1131	11
211	692	3	256	839	11	301	987	6	346	1135	2
212	695	6	257	843	2	302	990	10	347	1138	5
213	698	10	258	846	5	303	994	1	348	1141	9
214	702	1	259	849	9	304	997	4	349	1145	0
215	705	5	260	853	0	305	1000	8	350	1148	3
216	708	8	261	856	4	306	1003	11	351	1151	7
217	711	11	262	859	7	307	1007	3	352	1154	10
218	715	3	263	862	10	308	1010	6	352	1158	2
219	718	6	264	866	2	309	1013	9	354	1161	5
220	721	9	265	869	5	310	1017	1	355	1164	8
221	725	1	266	872	8	311	1020	4	356	1168	0
222	728	4	267	876	0	312	1023	7	357	1171	3
223	731	8	268	879	3	313	1026	11	358	1174	6
224	734	1	269	882	7	314	1030	2	359	1177	10
225	738	2	270	885	10	315	1033	6	360	1181	1

CONVERTING TABLE FEET INTO METERS

1 FT = 0.3048 M 1 IN = 0.0254 M
200M = 656 FT 250M = 850 FT 300M = 984 FT

	00	01	02	03	04	05
10	3.05	3.07	3.10	3.12	3.15	3.18
11	3.35	3.38	3.40	3.43	3.45	3.48
12	3.66	3.68	3.71	3.73	3.76	3.78
13	3.96	3.99	4.01	4.04	4.06	4.09
14	4.27	4.29	4.32	4.34	4.37	4.39
15	4.57	4.60	4.62	4.65	4.67	4.70
16	4.88	4.90	4.93	4.95	4.98	5.00
17	5.18	5.21	5.23	5.26	5.28	5.31
18	5.49	5.51	5.54	5.56	5.59	5.61
19	5.79	5.82	5.84	5.87	5.89	5.92
20	6.10	6.12	6.15	6.17	6.20	6.23
21	6.40	6.43	6.45	6.48	6.50	6.53
22	6.71	6.73	6.76	6.78	6.81	6.83
23	7.01	7.04	7.06	7.09	7.11	7.14
24	7.32	7.34	7.37	7.39	7.42	7.44
25	7.62	7.65	7.67	7.70	7.72	7.75
26	7.92	7.95	7.98	8.00	8.03	8.05
27	8.23	8.26	8.28	8.31	8.33	8.36
28	8.53	8.56	8.59	8.61	8.64	8.66
29	8.84	8.86	8.89	8.92	8.94	8.97
30	9.14	9.17	9.19	9.22	9.25	9.27
31	9.45	9.47	9.50	9.53	9.55	9.58
32	9.75	9.78	9.80	9.83	9.86	9.88
33	10.06	10.08	10.11	10.13	10.16	10.19
34	10.36	10.39	10.41	10.44	10.46	10.49
35	10.67	10.69	10.72	10.74	10.77	10.80
36	10.97	11.00	11.02	11.05	11.07	11.10
37	11.28	11.30	11.33	11.35	11.38	11.40
38	11.58	11.61	11.63	11.66	11.68	11.71
39	11.89	11.91	11.94	11.96	11.99	12.01
40	12.19	12.22	12.24	12.27	12.29	12.32
41	12.50	12.52	12.55	12.57	12.60	12.62
42	12.80	12.83	12.85	12.88	12.90	12.93
43	13.11	13.13	13.16	13.18	13.21	13.23
44	13.41	13.44	13.46	13.49	13.51	13.54
45	13.72	13.74	13.77	13.79	13.82	13.84
46	14.02	14.05	14.07	14.10	14.12	14.15
47	14.33	14.35	14.38	14.40	14.43	14.45
48	14.63	14.66	14.68	14.71	14.73	14.76
49	14.94	14.96	14.99	15.01	15.04	15.06

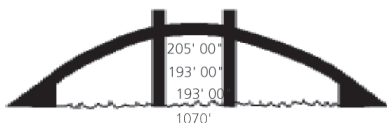
CONVERTING TABLE FEET INTO METERS

1 FT = 0.3048 M 1 IN = 0.0254 M

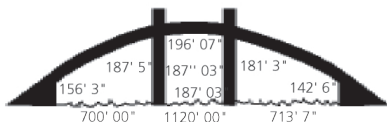
200M = 656 FT 250M = 850 FT 300M = 984 FT

	06	07	08	09	10	11
10	3.20	3.23	3.25	3.28	3.30	3.33
11	3.51	3.53	3.56	3.58	3.61	3.63
12	3.81	3.84	3.86	3.89	3.91	3.94
13	4.11	4.14	4.17	4.19	4.22	4.24
14	4.42	4.45	4.47	4.50	4.52	4.55
15	4.72	4.75	4.78	4.80	4.83	4.85
16	5.03	5.05	5.08	5.11	5.13	5.16
17	5.33	5.36	5.38	5.41	5.44	5.46
18	5.64	5.66	5.69	5.72	5.74	5.77
19	5.94	5.97	5.99	6.02	6.05	6.07
20	6.25	6.27	6.30	6.32	6.35	6.38
21	6.55	6.58	6.60	6.63	6.65	6.68
22	6.86	6.88	6.91	6.93	6.96	6.99
23	7.16	7.19	7.21	7.24	7.26	7.29
24	7.47	7.49	7.52	7.54	7.57	7.59
25	7.77	7.80	7.82	7.85	7.87	7.90
26	8.08	8.10	8.13	8.15	8.18	8.20
27	8.38	8.41	8.43	8.46	8.48	8.51
28	8.69	8.71	8.74	8.76	8.79	8.81
29	8.99	9.02	9.04	9.07	9.09	9.12
30	9.30	9.32	9.35	9.37	9.40	9.42
31	9.60	9.63	9.65	9.68	9.70	9.73
32	9.91	9.93	9.96	9.98	10.01	10.03
33	10.21	10.24	10.26	10.29	10.31	10.34
34	10.52	10.54	10.57	10.59	10.62	10.64
35	10.82	10.85	10.87	10.90	10.92	10.95
36	11.13	11.15	11.18	11.20	11.23	11.25
37	11.43	11.46	11.48	11.51	11.53	11.56
38	11.73	11.76	11.79	11.81	11.84	11.86
39	12.04	12.07	12.09	12.12	12.14	12.17
40	12.34	12.37	12.40	12.42	12.45	12.47
41	12.65	12.67	12.70	12.73	12.75	12.78
42	12.95	12.98	13.00	13.03	13.06	13.08
43	13.26	13.28	13.31	13.34	13.36	13.39
44	13.56	13.59	13.61	13.64	13.67	13.69
45	13.87	13.89	13.92	13.94	13.97	14.00
46	14.17	14.20	14.22	14.25	14.27	14.30
47	14.48	14.50	14.53	14.55	14.58	14.61
48	14.78	14.81	14.83	14.86	14.88	14.91
49	15.09	15.11	15.14	15.16	15.19	15.21

BRIDGE CLEARANCES



ASTORIA MEGLER BRIDGE



LONGVIEW BRIDGE



ST. JOHNS FIXED BRIDGE



FREMONT FIXED BRIDGE

ST. JOHNS RR BRIDGE.... K.Q. 9050	503-241-4492
VANCOUVER RR BRIDGE K.Q. 9049	360-418-6320
INTERSTATE VANCOUVER.. K.B.M.	360-693-6451
BROADWAY BRIDGE..... K.L.U. 724	503-988-3455
STEEL BRIDGE	K.Q.U. 534
BURNSIDE BRIDGE..... K.T.D. 520	503-988-3454
MORRISON BRIDGE..... K.T.D. 522	503-988-3453
HAWTHORNE BRIDGE..... K.T.D. 522	503-988-3452

VERTICAL CLEARANCE:

BUGBY HOLE OVERHEAD POWER CABLES.....	221 FT
LORD ISLAND OVERHEAD POWER CABLES.....	216 FT
RIVER GATE OVERHEAD POWER CABLES	230 FT
VANCOUVER POWER LINE CABLES.....	220 FT

BRIDGE WHISTLES

BRIDGES GUARD VHF CHANNEL 13

LEWIS & CLARK RIVER

LEWIS & CLARK HWY BRIDGE1 LONG, 4 SHORT

YOUNGS RIVER

YOUNGS RIVER HWY BRIDGE....2 LONG, 2 SHORT

YOUNGS RIVER BRIDGE.....2 LONG, 1 SHORT

WILLAMETTE RIVER

ST. JOHNS BRIDGE1 LONG, 1 SHORT

BROADWAY BRIDGE.....2 LONG, 1 SHORT

STEEL BRIDGE1 LONG, 1 SHORT

BURNSIDE BRIDGE.....1 LONG, 2 SHORT

MORRISON BRIDGE.....1 LONG, 3 SHORT

HAWTHORNE BRIDGE.....1 LONG, 4 SHORT

COLUMBIA RIVER

INTERSTATE RR BRIDGE, VAN....1 LONG, 1 SHORT

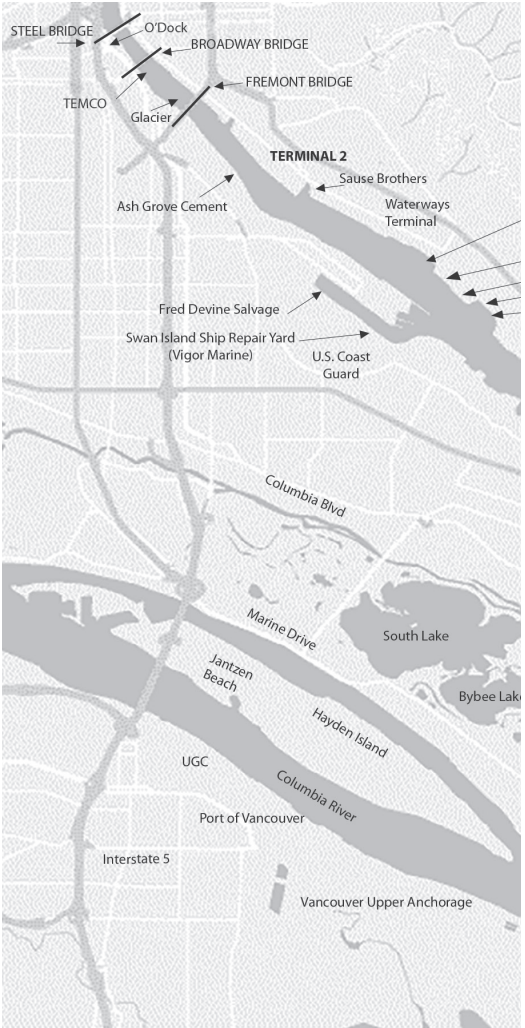
INTERSTATE BRIDGE, VAN.2 LONG, 1 SHORT

PORTLAND BRIDGES CLOSED 0700-0900 AND 1600-1800 EXCEPT SATURDAY, SUNDAY AND HOLIDAYS. ONE HOUR NOTICE REQUIRED TO HAWTHORNE BRIDGE FOR BROADWAY, BURNSIDE AND MORRISON BRIDGES DURING DAY M-F 0700-1500. TWO HOUR NOTICE REQUIRED TO HAWTHORNE BRIDGE FOR BROADWAY, BURNSIDE AND MORRISON BRIDGES AFTER 1500 M-F AND ON WEEKENDS AND HOLIDAYS. FOR STEEL BRIDGE ONE HOUR AND TWO HOUR NOTICE AS ABOVE TO THE STEEL BRIDGE.

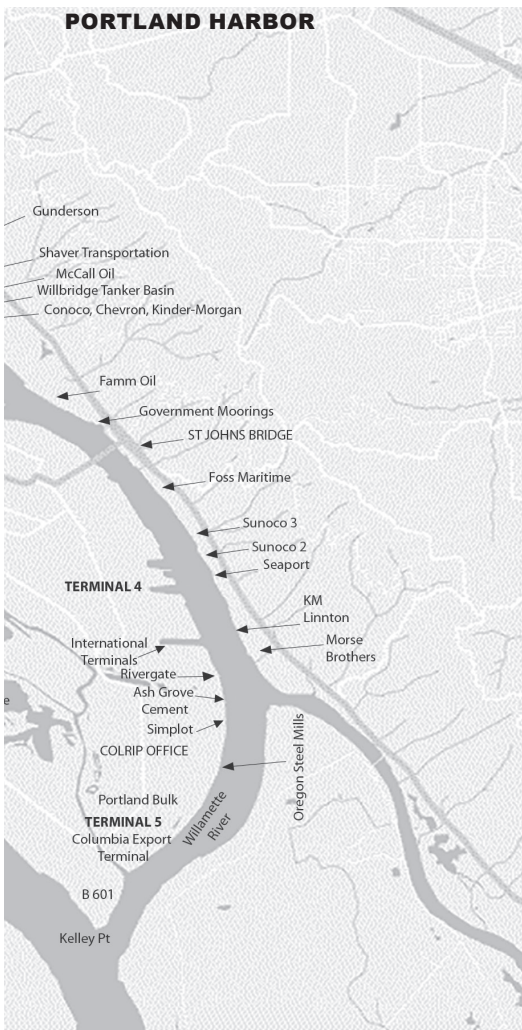
BRIDGE HEIGHTS

AT 0' COLUMBIA RIVER DATUM, MLLW

	HOR.	VERT.
ASTORIA-MEGLER	1070'	205'
LONGVIEW.....	1120' ..	187' 03"
	196' 07"	120' CTR
ST. JOHNS HWY.....	1068'	205'
ST. JOHNS RR.....	499'	54'
		200' UP
FREMONT	928'	175'
BROADWAY	251'	90'
STEEL.....	205'	26'
		161' UP
BURNSIDE	205'	64'
MORRISON.....	209'	69'
HAWTHORNE	200'	49'
		159' UP
MARQUAM	350'	102'
	220' CTR	120'
TILIKUM CROSSING.....	780'	77.5'
ROSS ISLAND	490'	120'
VAN R/R.....	200'	39'
I-5 INTERSTATE	263'	39'
		178' UP
WIDE SPAN.....	511'	46'
		58' CTR
HIGH SPAN	260'	72'



PORTLAND HARBOR



PORTLAND, OREGON (EAST)

	LENGTH	DEG.	HGT.
TERMINAL NO. 6			
BERTH 601	450'	136°	28.4'
BERTH 602-603-604-605	2,917'	136°	28.4'
BERTH 607	417'	136°	17.5'
.....	304'		CATWALK

TERMINAL NO. 5			
COLUMBIA EXPORT (501)	928'	230°/050°	31.1'
ALCATEL (502)	280'	230°	34.0'
.....	312'		CATWALK
PORTLAND BULK TERMINAL (503)	800'	230°	
.....	75'		CATWALK
OREGON STEEL MILL	340'	202°	26.0'
SIMPLOT	1,072'	187°	33.9'
ASHGROVE			DOLPHINS
INTERNATIONAL TERMINALS (SLIP)	1,620'	090°	26.3'
BERTH 4	40'	154°	25.0'
(FACE) + BREAST & TIE DOLPHINS			
BERTH 5	150'	154°	8.0'
(LAY) + BREAST & TIE DOLPHINS			

TERMINAL NO. 4			
BERTH 401	690'	154°/334°	35.9'
BERTH 405	550'	091°	35.1'
BERTH 408	780'	091°	35.1'
BERTH 411	1,333'	098°/278°	34.1'
BERTH 414-415	947'	149°/329°	28.6'
.....	440'		CATWALK
BERTH 416	16'	149°/329°	17.0'
.....	555'		CATWALK

SWAN ISLAND			
BERTH 301	850'	105°	32.0'
BERTH 302-303-304-305	2,500'	128°	32.0'
BERTH 306-307-308	1,500'	128°	32.0'
BERTH 309	1,141'	105°	32.0'
(OFFSHORE END OF PIER)	616'	105°	32.0'
(INSHORE END OF PIER)	525'	105°	43.0'
BERTH 310	514'	105°	43.0'
BERTH 311	415'	132°	26.9'
BERTH 312-313-314	3,016'	127°	29.1'
ASHGROVE	103'	149°	28.0'
.....	624'		CATWALK
GLACIER	415'	130°	30.0'
TEMCO	355'	146°	34.0'
.....	516'		CATWALK
O'DOCK	327'	133°	30.0'
.....	451'		CATWALK

PORTLAND, OREGON (WEST)

	LENGTH	DEG.	HGT.
MORSE BROS. (X-G.P. CHIP).....	668'	156°	28.8'
KM LINNTON	900'	157°	28.0'
SEAPORT.....	590'	149°	32.0'
SUNOCO 2	329'	146°	34.0'
.....	458' CATWALK		
SUNOCO 3	279'	151°	30.5'
FAMM OIL.....	327'	118°	29.3'
KINDER MORGAN WILLBRIDGE			
UPPER & LOWER.....	650'	229°	32.0'
APPROX 245 FT BETWEEN KM AND CHEVRON			
CHEVRON			
UPPER & LOWER.....	650'	229°	32.0'
APPROX 240 FT BETWEEN CHEVRON AND CONOCO			
CONOCO PHILLIPS			
UPPER & LOWER.....	650'	229°	32.0'
MCCALL OIL	924'	136°	30.1'
SHELL OIL	575'	120°	32.0'
GUNDERSON	1,017'	120°	30.8'

TERMINAL NO. 2

BERTH 203 BARGE SLIP.....	400'	213°	30.0'
BERTHS 204-205-206	2,290'	130°	30.0'
SULZER-BINGHAM (X-WISCO).....	1,350'	140°	30.0'

TERMINAL NO. 1

UPPER HARBOR SEAWALL	5,000'		31.0'
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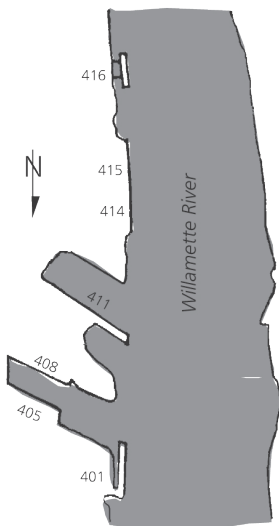
MISCELLANEOUS BERTHS BELOW PORTLAND

GEORGIA PACIFIC (WAUNA)

BARGE FACILITY	2950'	137°	16.0'
PORT WESTWARD (BEAVER)	1,200'	064°	
DIXIELINE LUMBER FACE.....	310'	157°	30.0'
(COLUMBIA CITY)			

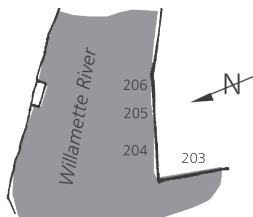
TERMINAL NO. 4

	LENGTH	DEG.	HGT.
BERTH 401	690'	154°	35.9'
BERTH 405	550'	091°	35.1'
BERTH 408	780'	091°	35.1'
BERTH 411	1,333'	098°/278°	34.1'
BERTH 414-415	947'	149°	28.6'
.....	440' CATWALK		
BERTH 416	416'	149°	17.0'
.....	555' CATWALK		



TERMINAL NO. 2

	LENGTH	DEG.	HGT.
BERTH 203 BARGE SLIP	400'	213°	30.0'
BERTH 204-205-206	2,290'	130°	30.0'



SWAN ISLAND

	LENGTH	DEG.	HGT.
BERTH 301	850'	105°	32.0'
BERTH 302-303-304-305	2,500'	128°	32.0'
BERTH 306-307-308	1,500'	128°	32.0'
BERTH 309	1,141'	105°	32.0'
(OFFSHORE END OF PIER)	616'	105°	32.0'
(INSHORE END OF PIER)	525'	105°	32.0'
BERTH 310	514'	105°	32.0'
BERTH 311	415'	132°	26.9'
BERTH 312-313-314	3,016'	127°	29.1'
BERTH 315 (DOLPHINS)	1,200'		

DRY DOCK 3

LIFT CAPACITY 24,270 LT.

630.5 FT. LONG

112.3 FT. WIDE

DRY DOCK 5

LIFT CAPACITY 15,000 LT.

329 FT. LONG

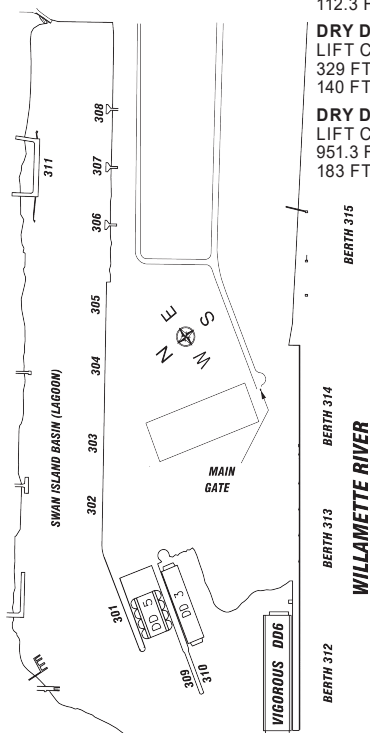
140 FT. WIDE

DRY DOCK 6

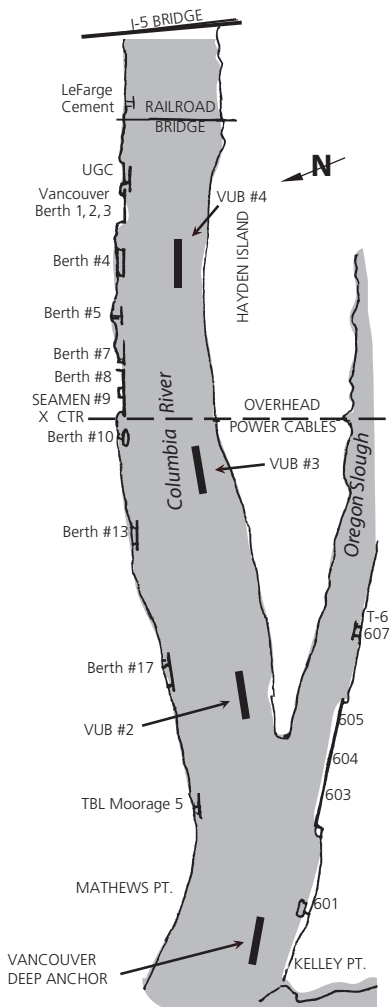
LIFT CAPACITY 80,000 LT.

951.3 FT. LONG

183 FT. WIDE



PORT OF VANCOUVER & T6



PORT OF VANCOUVER, WASHINGTON (USA)

	LENGTH	DEG.	HGT.
TERMINAL NO. 1.....	500'	122°	30.0'
(PARTIAL FOATING)			
LE FARGE CEMENT	621'	130°	29.8'
(CATWALK & DOLPHINS)			
UGC	715'	128°	34.5'
(WITH DOLPHINS)			

TERMINAL NO. 2

BERTH 1,2,3	1,750'..	128°/308°	30.8'
BERTH 4 (RO-RO).....	280'	128°	15.0'
BERTH 5 (SUNOCO).....	84'	128°	30.9'
BERTH 7	70'	122°	30.0'
.....	530'	CATWALK	
(HEAD DOLPHIN)			

TERMINAL NO. 3

BERTH 8 & 9	1,250'	122°	30.5'
(CATWALK & DOLPHINS)			
(126' BULLARD ARE 60' APART)			

TERMINAL NO. 4

BERTH 10 (AUTO).....	1040'...	118°/298°	15.0'
BERTH 13 & 14	1,360'	115°	30.0'

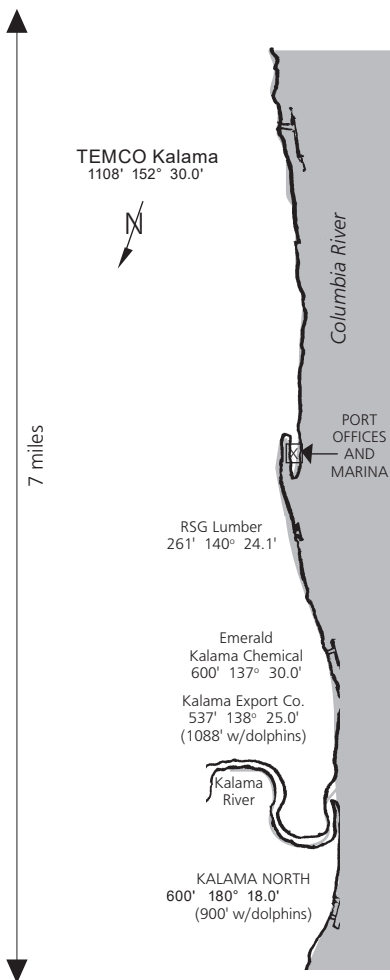
TERMINAL NO. 5

BERTH 17	450'	116°	26.0'
(CATWALK & DOLPHINS)			
TIDEWATER BARGE LINES	336'	111°	24.0'
(MOORAGE "5")			

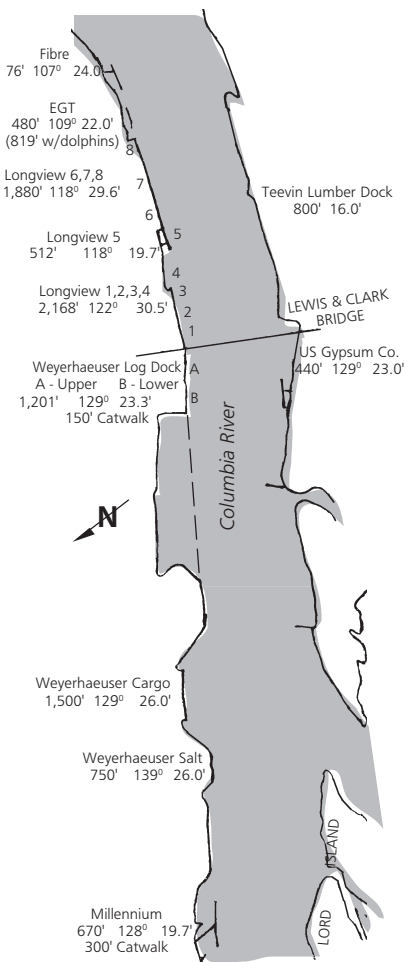
COLUMBIA RIVER ANCHOR BUOY DESIGNATIONS

VUB4 VANCOUVER ANCHOR BUOY
VUB3 VANCOUVER ANCHOR BUOY
VUB2 VANCOUVER ANCHOR BUOY
VLB1 VANCOUVER ANCHOR BUOY, BELOW MOUTH
KAB2 KALAMA ANCHOR BUOY, AT SANDY ISLAND
KAB1 KALAMA ANCHOR BUOY, AT PRESCOTT
RAB2 RAINIER ANCHOR BUOY
RAB1 RAINIER ANCHOR BUOY

KALAMA

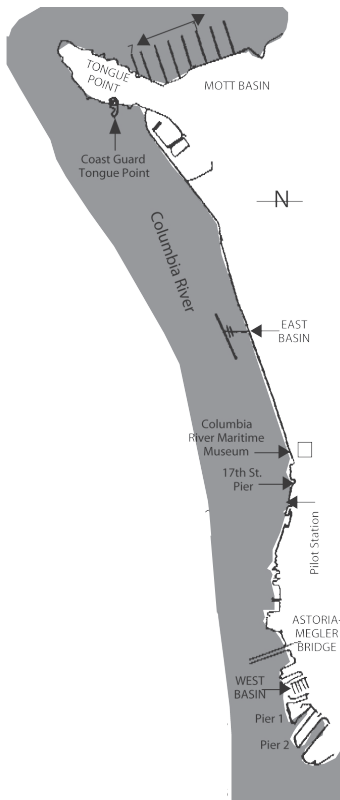


LONGVIEW / RAINIER



ASTORIA

	LENGTH	DEG.	HGT.
WILCOX AND FLEGEL.....	200'	097°	16.0'
FACE PIER 1	650'	075°	16.0'
PIER 1	1,100'	137°	16.0'
PIER 2 EAST	1,307'	137°	16.0'
PIER 2 FACE	425'	075°	16.0'
PIER 2 WEST	1,446'	129°	16.0'
MCCALL OIL (IN SHORE P-2 W).....		129°	16.0'
FACE DOCK PIER 2.....	450'		
DISTANCE BETWEEN PIER 1 & 2	450'		
DISTANCE BETWEEN PIER 2 & 3	325'		



PORTLAND NUMBERS

COLUMBIA RIVER PILOTS	503-289-9922
JONES STEVEDORING.....	503-228-6601
MERCHANTS EXCHANGE.....	503-228-4361
PORTLAND HARBOR MASTER.....	503-209-8109
PORTLAND LINES BUREAU.....	503-612-0895
PORTLAND SEAFARERS MISSION.....	503-283-8203
STEVEDORING SERVICE OF AMERICA.....	503-248-0848
WILLAMETTE RIVER LEVEL VIA BRIDGE	503-988-3452

ASTORIA NUMBERS

ASTORIA PORT DOCKS.....	503-325-4521
COLUMBIA RIVER BAR PILOTS.....	503-325-2641
CLATSOP COUNTY DISPATCH	503-325-2061
FOSS MARITIME (CONNOR FOSS).....	503-325-8527
LINES (SHIP) NIGHTS.....	503-325-2271
PORT DOCKS SECURITY NIGHT.....	503-791-7735
WCT MARINE (TUG VOYAGER).....	360-904-9684

TUGBOAT COMPANIES

BERNERT BARGE LINES.....	503-656-8288
BRUSCO TUG	360-636-3341
CAFFALL MARINE SERVICES.....	360-921-4304
FOSS MARITIME CO.....	503-285-0511
FRED DIVINE SALVAGE.....	503-283-5285
OLYMPIC TUG & BARGE	503-737-0124
SHAVER TRANSPORTATION CO	503-228-8847
.....	888-228-8850
SAUSE BROTHERS.....	503-222-1811
SALMON BAY BARGE LINES	206-762-0730
TIDEWATER BARGE LINES.....	360-693-1491

LAUNCH AND TAXI SERVICE

ANCHORAGE LAUNCH SERVICE.....	
ASTORIA TRIUMPH 2	503-793-1644
LONGVIEW/KALAMA TRIUMPH 3	503-793-1646
PORTLAND TRIUMPH 4	503-793-1645
COLUMBIA RIVER LAUNCH SERVICE	360-703-7721
(RELIEF/MULE/SUPPORT)	
COLUMBIA RIVER SEAFARER SERVICES	425-246-7747
.....	425-749-0156
GSB MARINE SERVICES TAXI 24/7 DISPATCH	360-601-6843
KIWI'S WATER TAXI ASTORIA.....	503-791-9045
SHIP TO SHORE (TOKITAE).....	971-888-0225
BROADWAY CAB	503-227-1234
RADIO CAB	503-227-1212
ROYAL CAB (ASTORIA)	503-325-5818
UPTOWN TAXI (LONGVIEW)	360-577-8294

EMERGENCY NUMBERS

COLUMBIA CO SHERIFF DISPATCH	503-397-1521
COWLITZ COUNTY SHERIFF	360-577-3092
LIFE FLIGHT.....	503-413-2940
MULTNOMAH COUNTY HARBOR PATROL	503-988-6788

FACILITY/SECURITY NUMBERS

PORTLAND

ASHGROVE CEMENT	503-285-4621
CHEVRON OPERATIONS	503-221-7866
COLUMBIA EXPORT	503-286-9681
SECURITY 24-HR.....	503-519-7707
CONOCO PHILLIPS	503-248-1565
SECURITY	503-849-9605
FAMM OIL	503-286-5321
GLACIER NORTHWEST (X-LONESTAR)	503-335-2600
INTERNATIONAL TERMINALS	503-286-5771
KINDER MORGAN B411	503-285-2990
SECURITY	503-285-2990 EXT 14
KINDER MORGAN LINNTON	503-209-4390
KINDER MORGAN WILLBRIDGE 24 HR	503-224-0319
O'DOCK ELEV	503-232-0127
SECURITY 24-HR.....	503-519-6753
MCCALL OIL	503-219-0982
SUNOCO 2/3 24-HR	503-969-4555
PORTLAND BULK	503-285-4200
SECURITY	503-849-9087
PORT OF PORTLAND	
TERMINAL 2 SECURITY	503-240-2102
TERMINAL 4 SECURITY	503-240-2104
TERMINAL 6 SECURITY	503-240-2230
SEAPORT 24-HR.....	503-915-5947
SHELL OIL (X-TEXACO)	503-294-1160
SIMPLOT CONTROL ROOM	503-247-7978
TEMCO PORTLAND	503-281-9177
SECURITY 24-HR.....	503-281-5645

VANCOUVER

SUNOCO OFFICE VAN 5	360-694-8591
PORT OF VANCOUVER SECURITY	360-992-1120
TESORO OFFICE VAN 5	360-696-2390
UNITED GRAIN ELEVATOR	503-289-2570
UNITED GRAIN ELEV. CONROL ROOM	360-693-1521
VANCOUVER SEAFARER'S CENTER.....	360-694-9300

KALAMA

KALAMA CHEMICAL SECURITY 24-HR	360-673-0317
KALAMA CHEMICAL CONTROL RM 24-HR	360-673-0223
KALAMA EXPORT	360-673-3900
TEMCO KALAMA 24-HR	651-355-3939
KALAMA NORTHPORT MAIN GATE	360-607-2237
PORT OF KALAMA SECURITY 24 HR	360-607-6198

LONGVIEW

EGT SHIP DESK 24-HR	360-747-5020
PORT OF LONGVIEW SECURITY	360-430-3079
WEYERHAEUSER SECURITY	360-636-6595

RAINIER

TEEVIN	503-556-0410
US GYPSUM 24-HR SECURITY	503-556-4949

PORT WESTWARD

COLUMBIA PACIFIC CONTROL ROOM 24-HR..	503-728-7014
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OIL SPILL/POLLUTION CONTROL

BURLINGTON ENVIRONMENTAL	503-283-1150
PACIFIC COAST ENVIRONMENTAL, INC	503-283-6747
PACIFIC COAST EQUIPMENT, INC	503-283-3357
PERATROVICH, NOTTINGHAM & DRAGE, INC.	360-624-1387
TIDEWATER ENVIRONMENTAL SVCS, INC.....	503-284-2850

SHIP REPAIRS

DIVERSIFIED MARINE	503-289-2669
JT MARINE	360-750-1300
VIGOR MARINE	503-247-1777
DRY DOCK MASTER KEN SWINGLE.....	503-702-2292
DRY DOCK MASTER TIM MCENTARFFER ...	503-706-3224

SHIP CHANDLERS

CASH AND CARRY DIVINA MERCADO	971-409-0676
COLUMBIA RIVER SEAFARER SERVICES	425-246-7747
.....	425-749-0156
PACIFIC MARINE DISTRIBUTORS.....	503-243-2258
PACIFIC SHIP SUPPLY	503-274-2289
SAN PEDRO HARBOR SHIP SUPPLY.....	503-288-1900
TRANSPACIFIC MYRNA LORENJO	971-533-0636
WEST COAST SHIP SUPPLY.....	503-224-9950

VESSEL AGENTS

ACGI SHIPPING CO	360-735-9083
BLUE WATER SHIPPING	503-274-8944
CASCADE MARINE AGENCIES.....	503-226-4018
CROWLEY MARITIME CORP.....	800-248-8632
FUJTRANS USA INC.....	503-222-1598
GENERAL STEAMSHIP CORP	503-228-7214
INCHCAPE SHIPPING CO	503-226-3093
INTERPORT PNW	360-448-8326
NORTON LILLY INTERNATIONAL	360-693-9125
SOUTHPORT AGENCIES	360-737-0185
TALON MARINE	503-679-6166
TRANSMARINE NAVIGATION.....	360-553-3920
TRANSVERSAL SHIPPING CO.....	503-247-3611
WILHELMSSEN SHIPS SERVICE	503-222-1561

U.S. GOVERNMENT

RIVER FORECAST/NATIONAL WX	503-261-9246
US COAST GUARD (24 HR)	833-769-8724
US CUSTOMS	503-326-2875
US CUSTOMS ASTORIA.	503-325-5541

SHIP ASSIST TUGS BOLLARD PULL

	AHEAD SHORT TONS	ASTERN SHORT TONS	L X B (FEET)
SHAVER			
SAMANTHA S	100+	100.80	112 X 45
SHAVER	59.65	60.59	80 X 38
PORTLAND	49.35	45.54	107 X 37
DESCHUTES	46.57	39.90	93 X 36
VANCOUVER	44.25	39.90	76 X 28
WILLAMETTE	42.94	39.50	93 X 36
WASHINGTON	41.60	43.44	92 X 28
CLEARWATER	39.00	24.24	98 X 30
CASCADES	35.58	22.95	102 X 30
COLUMBIA	31.30	24.19	87 X 28
LINCOLN	29.00	21.50	93 x 32
CAPT STEVE	--	--	98 x 34
FOSS			
SARAH BRUSCO	65.12	55.40	78 X 29
CAROLYN DOROTHY	59.39	56.79	78 X 34
PETER J BRIX	55.67	52.54	78 X 31
PJ BRIX	33.18	30.31	75 X 32
WYNEMA SPIRIT	45.00	45.00	78 X 30

AS OF APRIL 2024 , THE BOLLARD PULL CAPABILITIES OF NAMED TUGS STATED IS INFORMATION THAT HAS BEEN PROVIDED BY THIRD PARTIES. IT HAS NOT BEEN SEPARATELY CONFIRMED BY THE COLUMBIA RIVER PILOTS, WHICH CANNOT AND DOES NOT GUARANTEE THE ACCURACY OF INFORMATION PROVIDED BY OTHERS.

TUG CLASS RATINGS

CLASS	AHEAD	ASTERN
A MAX	160,000 / 80.OT	144,000 / 72.OT
A+	110,000 / 55.OT	100,000 / 50.OT
A	80,000 / 40.OT	70,000 / 35.OT
B OR B (+)	60,000 / 30.OT	45,000 / 22.5T
C	35,000 / 17.5T	25,000 / 12.5T
D	20,000 / 10.OT	10,000 / 5.OT

A-MAX, A+, A AND B+ CLASS BOATS
MUST BE TRACTOR TUGS.

MEASURE CONVERSIONS

1 KIP = 1000 POUNDS

1 SHORT TON= 2000 POUNDS

1 METRIC TON =2205 POUNDS

1 LONG TON = 2240 POUNDS

1 POUND = .0005 SHORT TONS

1 KILONEWTON = .1124 SHORT TONS

1 METRIC TON = 1.102 SHORT TONS

1 LONG TON = 1.12 SHORT TONS

1 KILOWATT = 1.34 HORSEPOWER

FOR INFORMATION ON THE COLUMBIA RIVER PILOTS'
VESSEL MOVEMENT GUIDELINES GO TO
WWW.COLRIP.COM

EMERGENCY SHIP BERTHING SIGNALS IN THE EVENT OF VHF RADIO FAILURE

FORWARD AND/OR AFT TUGS:

- • • • • **DANGER SIGNAL:** IF YOU STILL HAVE RADIO CONTACT, THE PILOT WILL TELL YOU THE REASON FOR THE SIGNAL. IF YOU HAVE NOT HEARD INSTRUCTIONS, IMMEDIATELY CHECK YOUR RADIOS AND BRING YOUR ENGINES TO IDLE. IF YOU WERE PUSHING, STOP AND MOVE QUICKLY TO A TIGHT LINE. IF YOU WERE BACKING, HOLD A TIGHT LINE.

LISTEN CAREFULLY FOR INSTRUCTIONS THAT WILL FOLLOW ON CHANNEL 13 AND/OR THE SHIP'S WHISTLE. ANY WHISTLE NOT FOLLOWED BY COMMUNICATIONS FROM THE PILOT SHOULD PROMPT AN IMMEDIATE RADIO CHECK.

FORWARD TUG(S):

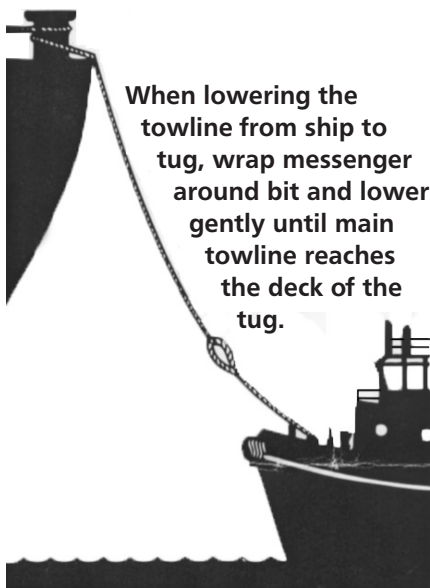
- **PUSH FULL**
- • **PULL FULL**
- **STOP**

AFT TUG(S):

- **PUSH FULL**
- — **PULL FULL**
- **STOP**

NOTE: IN THE CASE OF A BOW THRUSTER, AND THE AFT TUG IS THE ONLY TUG, THE SHORTER, FORWARD TUG SIGNALS APPLY. TUGS SHOULD FIRST PERFORM THE COMMAND GIVEN, THEN ANSWER THE COMMAND WITH A MATCHING WHISTLE BLAST.

Towline Instructions



When lowering the towline from ship to tug, wrap messenger around bit and lower gently until main towline reaches the deck of the tug.

SAFETY FIRST!

COLUMBIA RIVER BAR PILOTS
OFFICE 503-325-2641

ACKERMAN, S.
BLACK, W.P.
BOLDEMANN, B.S.
BRADY, J.J.
CHRISTIAN, N.
FARRELL, C.J.
HAILS, M.
HILL, D.

JORDAN, D.S.
JULIEN, C.J.
NEHRING, C.G.
SOHLBERG, J.C.
TOLLEY, M.J.
VALENTINE, J.D.
WODEHOUSE, K.H.

ADMINISTRATION

FELICIA EBY
KARLI NIELSON

PILOT BOAT OPERATORS

JASON HUGHES
MIKE HUGHES
BROCK JOHNSON
REESE JOHNSON
FRANK SHUCKA

LAUNCH OPERATORS

BEN HARTLEY
MONTY McCLEARY
LEROY (SPLASH) SCHLECHT

ASTORIA DISPATCHERS

SAMANTHA STEERMAN
ERICK WISTI

POINTS OF INTEREST

THE COLUMBIA RIVER IS ABOUT 1,400 MILES LONG, ORIGINATING ON THE WESTERN SLOPES OF THE CANADIAN ROCKIES IN BRITISH COLUMBIA. THE RIVER DRAINS AN AREA OF ABOUT 250,000 SQUARE MILES. THE COLUMBIA RIVER IS NAVIGABLE FOR DEEP-DRAFT OCEAN VESSELS TO PORTLAND, OR AND VANCOUVER, WA, A DISTANCE OF ABOUT 100 MILES ABOVE THE MOUTH OF THE RIVER AND BY LIGHTER DRAFT VESSELS TO 14 FEET TO LEWISTON, ID, VIA THE SNAKE RIVER FROM PASCO, WA, FOR A TOTAL DISTANCE OF 425 MILES INTO THE GREAT INLAND EMPIRE.

ON A CLEAR DAY YOU CAN SEE:

MT. SAINT HELENS	8,400 FT. ELEVATION
MT. JEFFERSON	10,497 FT. ELEVATION
MT. HOOD	11,245 FT. ELEVATION
MT. ADAMS	12,307 FT. ELEVATION
MT. RAINIER	14,410 FT. ELEVATION

POPULATION

ASTORIA	10,321
LONGVIEW	38,052
RAINIER	1,915
KALAMA	3,083
VANCOUVER (CITY)	196,739
PORTLAND (CITY)	666,249

FEDERAL HOLIDAYS 2025

THURSDAY, JANUARY 1	NEW YEAR'S DAY
MONDAY, JANUARY 19	MARTIN LUTHER KING JR. DAY
MONDAY, FEBRUARY 16	PRESIDENT'S DAY
MONDAY, MAY 25	MEMORIAL DAY
THURSDAY, JUNE 19	JUNETEENTH DAY
FRIDAY, JULY 3	INDEPENDENCE DAY
MONDAY, SEPTEMBER 7	LABOR DAY
MONDAY, OCTOBER 12	COLUMBUS DAY
WEDNESDAY, NOVEMBER 11	VETERANS DAY
THURSDAY, NOVEMBER 26	THANKSGIVING DAY
FRIDAY, DECEMBER 25	CHRISTMAS DAY

2026

JANUARY							JULY						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3				1	2	3	4
4	5	6	7	8	9	10	5	6	7	8	9	10	11
11	12	13	14	15	16	17	12	13	14	15	16	17	18
18	19	20	21	22	23	24	19	20	21	22	23	24	25
25	26	27	28	29	30	31	26	27	28	29	30	31	
FEBRUARY							AUGUST						
1	2	3	4	5	6	7							1
8	9	10	11	12	13	14	2	3	4	5	6	7	8
15	16	17	18	19	20	21	9	10	11	12	13	14	15
22	23	24	25	26	27	28	16	17	18	19	20	21	22
23	24	25	26	27	28		23	24	25	26	27	28	29
							30	31					
MARCH							SEPTEMBER						
1	2	3	4	5	6	7			1	2	3	4	5
8	9	10	11	12	13	14	6	7	8	9	10	11	12
15	16	17	18	19	20	21	13	14	15	16	17	18	19
22	23	24	25	26	27	28	20	21	22	23	24	25	26
29	30	31					27	28	29	30			
APRIL							OCTOBER						
			1	2	3	4				1	2	3	
5	6	7	8	9	10	11	4	5	6	7	8	9	10
12	13	14	15	16	17	18	11	12	13	14	15	16	17
19	20	21	22	23	24	25	18	19	20	21	22	23	24
26	27	28	29	30	1	2	25	26	27	28	29	30	31
MAY							NOVEMBER						
					1	2	1	2	3	4	5	6	7
3	4	5	6	7	8	9	8	9	10	11	12	13	14
10	11	12	13	14	15	16	15	16	17	18	19	20	21
17	18	19	20	21	22	23	22	23	24	25	26	27	28
24	25	26	27	28	29	30	29	30					
31													
JUNE							DECEMBER						
	1	2	3	4	5	6			1	2	3	4	5
7	8	9	10	11	12	13	6	7	8	9	10	11	12
14	15	16	17	18	19	20	13	14	15	16	17	18	19
21	22	23	24	25	26	27	20	21	22	23	24	25	26
28	29	30					27	28	29	30	31		

2027

JANUARY							JULY						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
					1	2					1	2	3
3	4	5	6	7	8	9	4	5	6	7	8	9	10
10	11	12	13	14	15	16	11	12	13	14	15	16	17
17	18	19	20	21	22	23	18	19	20	21	22	23	24
24	25	26	27	28	29	30	25	26	27	28	29	30	31
31													
FEBRUARY							AUGUST						
	1	2	3	4	5	6	1	2	3	4	5	6	7
7	8	9	10	11	12	13	8	9	10	11	12	13	14
14	15	16	17	18	19	20	15	16	17	18	19	20	21
21	22	23	24	25	26	27	22	23	24	25	26	27	28
28							29	30	31				
MARCH							SEPTEMBER						
	1	2	3	4	5	6			1	2	3	4	
7	8	9	10	11	12	13	5	6	7	8	9	10	11
14	15	16	17	18	19	20	12	13	14	15	16	17	18
21	22	23	24	25	26	27	19	20	21	22	23	24	25
28	29	30	31				26	27	28	29	30		
APRIL							OCTOBER						
				1	2	3					1	2	
4	5	6	7	8	9	10	3	4	5	6	7	8	9
11	12	13	14	15	16	17	10	11	12	13	14	15	16
18	19	20	21	22	23	24	17	18	19	20	21	22	23
25	26	27	28	29	30		24	25	26	27	28	29	30
							31						
MAY							NOVEMBER						
						1		1	2	3	4	5	6
2	3	4	5	6	7	8	7	8	9	10	11	12	13
9	10	11	12	13	14	15	14	15	16	17	18	19	20
16	17	18	19	20	21	22	21	22	23	24	25	26	27
23	24	25	26	27	28	29	28	29	30				
30	31												
JUNE							DECEMBER						
		1	2	3	4	5				1	2	3	4
6	7	8	9	10	11	12	5	6	7	8	9	10	11
13	14	15	16	17	18	19	12	13	14	15	16	17	18
20	21	22	23	24	25	26	19	20	21	22	23	24	25
27	28	29	30				26	27	28	29	30	31	

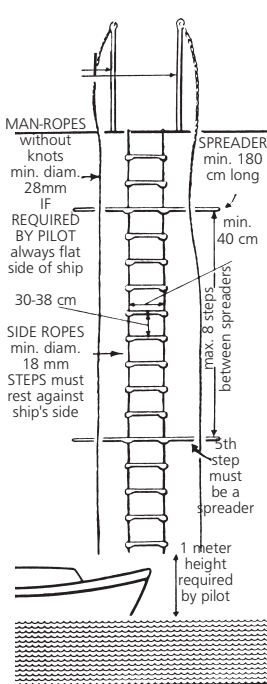
REQUIRED BOARDING ARRANGEMENTS FOR COLUMBIA RIVER PILOTS

RIGGING FOR FREEBOARDS OF 9 METERS OR LESS

PORTSIDE IS PREFERRED SIDE

HANDHOLD STANCHIONS

min. diam. 32 mm
120 cm above bulwark
min. 70 cm
max. 80 cm apart



NO

NO!

no shackles
no knots
no splices

NO!

the steps
must be
equally
spaced

NO!

the steps
must be
horizontal

NO!

spreaders
must not
be lashed
between
steps

NO!

side ropes
must be
equally
spaced

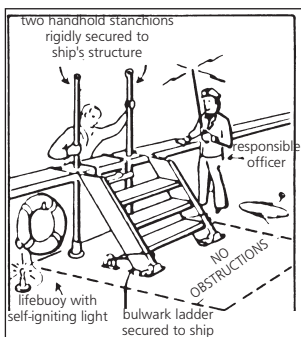
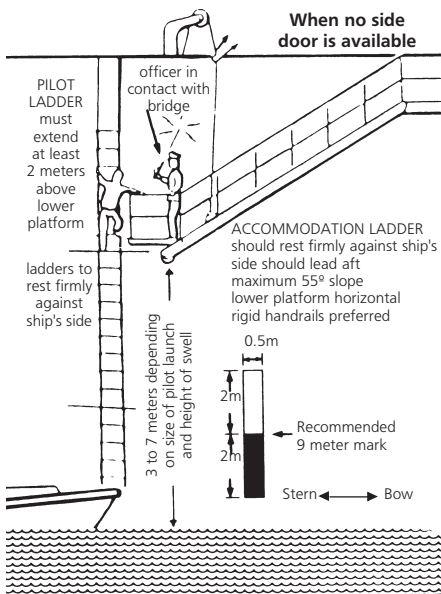
NO!

the loops are
a tripping hazard
for the pilot and
can become foul
of the pilot launch

LADDER AMIDSHIPS

REQUIRED BOARDING ARRANGEMENTS FOR COLUMBIA RIVER PILOTS

SHIPS WITH HIGH FREEBOARD MORE THAN 9 METERS





ORDERING A COLUMBIA RIVER PILOT

503-289-9922

DISPATCHERS@COLRIP.COM

**ORDERS FOR A COLUMBIA RIVER PILOT WILL BE ACCEPTED
ONLY BETWEEN THE
HOURS OF 0700 AND 1600.**

SPECIAL ARRANGEMENTS CAN BE MADE FOR
TENTATIVE ORDERS DURING THE NIGHT, BUT SUCH
ARRANGEMENTS MUST BE MADE PRIOR TO 1600.

IN CASE OF EMERGENCY AFTER 1700 CALL: 503-289-9922

WHEN INCOMING FROM SEA (WITHOUT SERVICE
OF BAR PILOT) VESSELS OR AGENTS MUST GIVE
NOTICE BETWEEN THE HOURS OF 0800 AND 1600
AND AT LEAST 24 HOURS PRIOR TO ESTIMATED TIME
OF ARRIVAL AT ASTORIA. CALL MAY BE PLACED
WITH THE:

**ASTORIA OFFICE: 503-325-2641

**PORTLAND OFFICE: 503-289-9922

**BY RADIO TO COLRIP ASTORIA, OR

VESSELS MUST CONFIRM ETA ASTORIA AT LEAST
TWO HOURS BEFORE ARRIVAL BY CALLING ASTORIA
OFFICE 503-325-2641 (DAY) OR (NIGHT) OR BY RADIO
TO COLRIP ASTORIA, OR.

RIVER PILOT 1LONG,3SHORT

BAR PILOT 1 LONG, 2 SHORT, 1 LONG

LAUNCH 1LONG,2SHORT

SAILINGS & HARBOR MOVES REQUIRE:

**3 HOURS NOTICE FOR JOBS IN PORTLAND AND
VANCOUVER HARBORS.

**3 HOURS NOTICE FOR JOBS IN KALAMA AND
LONGVIEW HARBORS.

**VESSELS ARRIVING FROM SEA AT THE
COLUMBIA RIVER BAR MUST GIVE AT LEAST 24
AND 12 HOURS NOTICE FOR BAR AND RIVER
PILOT.

**ANY SAILING OR HARBOR MOVE OCCURRING
BETWEEN THE HOURS OF 1900 AND 0900 IS AN
AFTER-HOURS JOB.

**PROCEDURE FOR ORDERING PILOTS
ON AFTER-HOURS JOBS:**

- 1) PLACE ORDER FOR PILOT WITH PILOT DISPATCHER NO LATER THAN 1600 HOURS.
- 2) DETERMINE IF THE PILOT WILL REPORT FOR A SET JOB OR A CALL JOB, AS FOLLOWS:
 - **SET JOB: FOR DEFINITE SAILING/SHIFTING TIMES, PILOT WILL REPORT WITH NO ADDITIONAL CALLS REQUIRED; REPORT CHARGE BILLED IF PILOT ARRIVES AND JOB CANCELS.
 - **CALL JOB: FOR TENTATIVE SAILING/SHIFTING TIMES AFTER DISPATCH OFFICE IS CLOSED; PILOT WILL NOT REPORT UNTIL CALL JOB BECOMES SET JOB; NO CHARGE FOR CANCELLING CALL JOB.
- 3) TO SET CALL JOB TIME, CALL MERCHANTS EXCHANGE AT 503-228-4361 OR ON CHANNEL 16, CALL SIGN WHW-656, WITH THE APPROPRIATE 3 HOUR NOTICE.

MERCHANTS EXCHANGE

**24-HOUR VESSEL INFORMATION
CALL CHANNEL 16 WHW 656**

**OPERATING CHANNELS
ASTORIA TO PORTLAND
CHANNEL 18A, 11**

US COAST GUARD REGULATION

47CFR-PART80.305 A3
REQUIRES MONITORING CHANNEL 16 AT ALL
TIMES WHILE TRANSITING INLAND WATERS

**IN ALL EMERGENCIES
CALL THE U.S. COAST GUARD**

RADIO: VHF-FM CH. 16
PHONE: 833-769-8724
(ASTORIA COAST GUARD)

SEE US COAST PILOT 7 FOR INFORMATION
ON THE COLUMBIA RIVER BAR PILOTS

FOR INFORMATION ON THE
LOWER COLUMBIA REGION HARBOR SAFETY PLAN
GO TO WWW.LCRHSC.ORG

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**COLUMBIA
RIVER
PILOTS**

PILOT CONTACT INFORMATION

**COLUMBIA RIVER PILOTS
13225 N COLUMBIA BLVD.
PORTLAND, OR 97203
FAX: (503) 289-9955**

STAFF CONTACT INFORMATION

**DISPATCH ONLY (0700-1600):
JIM HORNE -JEFF GERMANO- CHAD JOURNEY
VESSEL MOVEMENT COORDINATORS
DISPATCHERS@COLRIP.COM
(503) 289-9922**

**JENNIFER MCANINCH
BUSINESS MANAGER
JMCANINCH@COLRIP.COM
(503) 289-9925**

**ALEXANDRA MCCULLEY
ACCOUNTING MANAGER
ACCOUNTING@COLRIP.COM
(503) 289-8734**

**OFFICE ASSISTANTS
ADMIN@COLRIP.COM
503-289-2524**

WWW.COLRIP.COM