Chart 11493 NM N11/02

ST. MARYS ENTRANCE AND CUMBERLAND SOUND CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF NOV 2001
AND SURVEYS TO NOV 2001

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
ENTRANCE CHANNEL	44.8	45.1	44.6	39.5	11-01	500	12.36	46
RANGE A	45.0	47.6	47.4	43.2	7-01	482	1.34	42
RANGE A1, A2	46.2	43.3	44.5	40.0	7-01	591-834	0.66	42
RANGE B	47.1	47.2	46.5	44.8	7-01	582-655	0.55	42
RANGE C	37.2	45.2	46.3	42.8	7-01	498	1.19	42
RANGE D	36.3	43.7	42.6	35.3	7-01	489-498	1.35	42
RANGE E	41.9	41.7	42.0	36.8	7-01	512	0.87	42
RANGE F (WARRIOR REACH)	39.4	40.7	43.3	39.9	7-01	564-836	0.25	42
RANGE G (SOUTH TURNING BASIN)	34.7	40.3	41.5	43.5	7-01	661-1181	0.49	42
RANGE H (TENNESSEE REACH)	33.1	40.3	41.6	40.8	7-01	482-1197	0.83	42
RANGE I (NORTH TURNING BASIN)	44.6	45.3	44.5	35.0	7-01	493-1425	0.46	42

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11494 NM N11/02

ST. MARYS ENTRANCE AND CUMBERLAND SOUND CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF NOV 2001
AND SURVEYS TO NOV 2001

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
ENTRANCE CHANNEL	44.8	45.1	44.6	39.5	11-01	500	12.36	46
RANGE A	45.0	47.6	47.4	43.2	7-01	482	1.34	42
RANGE A1, A2	46.2	43.3	44.5	40.0	7-01	591-834	0.66	42
RANGE B	47.1	47.2	46.5	44.8	7-01	582-655	0.55	42
RANGE C	37.2	45.2	46.3	42.8	7-01	498	1.19	42
RANGE D	36.3	43.7	42.6	35.3	7-01	489-498	1.35	42
RANGE E	41.9	41.7	42.0	36.8	7-01	512	0.87	42

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11503 NM 11/02

ST. MARYS ENTRANCE AND CUMBERLAND SOUND CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF NOV 2001
AND SURVEYS TO NOV 2001

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
ENTRANCE CHANNEL	44.8	45.1	44.6	39.5	11-01	500	12.36	46
RANGE A	45.0	47.6	47.4	43.2	7-01	482	1.34	42
RANGE A1, A2	46.2	43.3	44.5	40.0	7-01	591-834	0.66	42
RANGE B	47.1	47.2	46.5	44.8	7-01	582-655	0.55	42
RANGE C	37.2	45.2	46.3	42.8	7-01	498	1.19	42
RANGE D	36.3	43.7	42.6	35.3	7-01	489-498	1.35	42
RANGE E	41.9	41.7	42.0	36.8	7-01	512	0.87	42
RANGE F (WARRIOR REACH)	39.4	40.7	43.3	39.9	7-01	564-836	0.25	42
RANGE G (SOUTH TURNING BASIN)	34.7	40.3	41.5	43.5	7-01	661-1181	0.49	42
RANGE H (TENNESSEE REACH)	33.1	40.3	41.6	40.8	7-01	482-1197	0.83	42
RANGE I (NORTH TURNING BASIN)	44.6	45.3	44.5	35.0	7-01	493-1425	0.46	42

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11505 NM 11/02

SAVANNAH RIVER CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF DEC 2001

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
TYBEE RANGE	43.0	42.0	43.0	43.0	12-01	600	3.3	44
BLOODY POINT RANGE	43.0	42.0	42.5	42.5	12-01	600	3.0	44
JONES ISLAND RANGE	44.0	43.0	43.0	44.0	12-01	600	1.2	44
TYBEE KNOLL CUT RANGE	42.0	43.0	43.5	44.0	12-01	500	2.5	42

NOTE: AT MEAN HIGH WATER, DEPTHS ARE ABOUT 7 FEET GREATER AT LOWER END OF THE HARBOR AND 7.7 FEET GREATER AT UPPER END OF HARBOR.

NOTE: FOR THE LEFT OUTSIDE AND RIGHT OUTSIDE QUARTERS, DEPTHS GIVEN REPRESENT CONDITIONS 75 FEET INSIDE THE CHANNEL LIMITS.

NOTE- CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 12316 (Side B) NM 11/02

CAPE MAY CANAL

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUL 2000 AND SURVEYS TO AUG 2001

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
FROM CANAL ENTRANCE TO CAPE ISLAND CREEK	12.2	11.1	8.9	5-01	100	0.35	12
FROM CAPE ISLAND CREEK TO INNER END OF FERRY BASIN	5.8	7.8	7.0	3-01	100	2.55	12
FROM INNER END OF FERRY BASIN TO DELAWARE BAY	8.6	11.0	11.1	8-01	100-150	0.44	12

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 12317 NM 11/02

CAPE MAY CANAL

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUL 2000 AND SURVEYS TO AUG 2001

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
FROM CANAL ENTRANCE TO CAPE ISLAND CREEK	12.2	11.1	8.9	5-01	100	0.35	12
FROM CAPE ISLAND CREEK TO INNER END OF FERRY BASIN	5.8	7.8	7.0	3-01	100	2.55	12
FROM INNER END OF FERRY BASIN TO DELAWARE BAY	8.6	11.0	11.1	8-01	100-150	0.44	12

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 18447 (Side A) NM 11/02

LAKE WASHINGTON SHIP CANAL

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO SEP 1996

* SEE FOOTNOTE					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH * (MILES)	DEPTH * (FEET)
SHILSHOLE BAY ENTRANCE RANGE	A 15.3	26.9	B 2.7	8,9-96	300-100	1.0	34
LARGE LOCK TO LAKE UNION	23.1	27.4	24.6	8,9-96	100-300	2.2	30
PORTAGE BAY REACH	23.9	26.3	22.9	8,9-96	350-200	0.8	30
MONTLAKE CUT	21.7	30.3	30.1	8,9-96	100	0.4	30
UNION BAY REACH	26.7	C 30.0	21.4	8,9-96	100-200	0.9	30

A. THE CHANNEL HAS SHOALED ALONG THE EDGE: A DEPTH OF 31.0 FEET WAS AVAILABLE IN THE INSIDE HALF OF THE QUARTER.

B. THE CHANNEL HAS SHOALED ALONG THE EDGE: A DEPTH OF 20.8 FEET WAS AVAILABLE IN THE INSIDE HALF OF THE QUARTER.

C. EXCEPT FOR 27 FEET AT 47°38'49.7"/122°16'35.2" FROM SURVEY OF MARCH 2000.

* CONTROLLING DEPTHS IN CHANNELS ENTERING FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER BELOW THE LOCKS AND AT LOW REGULATED LAKE LEVEL ABOVE THE LOCKS. PROJECT LENGTHS ARE IN NAUTICAL MILES.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 18525 NM 11/02

COLUMBIA RIVER CHANNEL DEPTHS
SAINT HELENS TURN TO TOMAHAWK BAR

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO NOV 2001

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT COLUMBIA RIVER DATUM (CRD)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (STAT. MILES)	DEPTH CRD (FEET)
ST. HELENS TURN	45	45	44	39	9-01	600	1.7	40
WARRIOR ROCK RANGE	40	41	42	41	8-01	600	1.3	40
DUCK CLUB TURN	42	42	42	42	8-01	600	1.4	40
HENRICI RANGE	42	42	40	39	6,8-01	600	2.6	40
FALES CHANNEL	42	42	40	40	6-01	600	1.1	40
KNAPP POINT CHANNEL	41	41	41	39	6-01	600	1.8	40
WILLOW LOWER RANGE	40	42	42	41	6-01	600	2.1	40
WILLOW UPPER RANGE	44	44	44	45	6-01	600	1.1	40
MORGAN TURN	44	45	47	50	6-01	600	1.0	40
MORGAN CHANNEL	47	47	44	43	11-01	600	1.5	40
VANCOUVER LOWER CHANNEL	48	48	52	54	10-01	500	1.0	40
VANCOUVER RANGE	41	40	40	42	10-01	500	1.3	40
VANCOUVER UPPER CHANNEL	43	42	42	41	10-01	500	0.9	40
VANCOUVER LOWER TURNING BASIN	34	37	40	41	10-01	800	1.0	40
VANCOUVER UPPER TURNING BASIN	31	28	29	30	10-01	800	0.9	35
TOMAHAWK BAR	18	18	20	19	10-01	300	3.7	27

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 18526 NM 11/02

COLUMBIA RIVER CHANNEL DEPTHS
MORGAN CHANNEL TO TOMAHAWK BAR

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO NOV 2001

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT COLUMBIA RIVER DATUM (CRD)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (STAT. MILES)	DEPTH CRD (FEET)
MORGAN CHANNEL	47	47	44	43	11-01	600	1.5	40
VANCOUVER LOWER CHANNEL	48	48	52	54	10-01	500	1.0	40
VANCOUVER RANGE	41	40	40	42	10-01	500	1.3	40
VANCOUVER UPPER CHANNEL	43	42	42	41	10-01	500	0.9	40
VANCOUVER LOWER TURNING BASIN	34	37	40	41	10-01	800	1.0	40
VANCOUVER UPPER TURNING BASIN	31	28	29	30	10-01	800	0.9	35
TOMAHAWK BAR	18	18	20	19	10-01	300	3.7	27

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 18531 NM 11/02

COLUMBIA RIVER CHANNEL DEPTHS
TOMAHAWK BAR TO BONNEVILLE LOCKS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO NOV 2001

* SEE FOOTNOTE					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH * (MILES)	DEPTH * (FEET)
TOMAHAWK BAR	18	18	19	11-01	300	3.7	27
AIRPORT BAR	19	16	17	2-01	300	2.8	27
GOVERNMENT ISLAND LOWER RANGE	13	14	17	2-01	300	1.1	27
GOVERNMENT ISLAND MIDDLE RANGE	14	15	17	2-01	300	1.6	27
FISHER QUARRY CHANNEL RANGE	27	26	25	2-01	300	1.0	27
GOVERNMENT ISLAND RANGE	21	24	26	2-01	300	1.1	27
GOVERNMENT ISLAND UPPER RANGE	18	17	20	2-01	300	0.8	27
LADY ISLAND RANGE	18	19	20	2-01	300	2.1	27
LADY ISLAND CHANNEL AND UPPER RANGE	26	24	18	2-01	300	0.9	27
WASHOUGAL LOWER RANGE	26	26	28	2-01	300	1.5	27
WASHOUGAL UPPER RANGE	19	25	32	2,3-01	300	1.1	27
GARY ISLAND RANGE	15	14	15	3-01	300	0.9	27
REED ISLAND RANGE	17	15	16	3-01	300	2.2	27
TUNNEL POINT CHANNEL	23	22	24	3-01	300	0.8	27
ROOSTER ROCK CHANNEL	23	21	21	3-01	300	1.2	27
CAPE HORN CHANNEL	29	29	28	3-01	300	2.4	27
CANDIANA CHANNEL	34	28	25	3-01	300	1.0	27
FASHION REEF LOWER RANGE	13	16	23	3-01	300	2.2	27
MULTNOMAH FALLS BAR RANGE	12	22	14	3-01	300	1.3	27
MULTNOMAH FALLS TURN	13	17	21	3-01	300	0.8	27
MULTNOMAH FALLS UPPER RANGE	19	20	26	3-01	300	3.2	27
MCGOWANS CHANNEL	38	29	26	3-01	300	1.1	27
WARRENDALE LOWER RANGE	22	22	19	3-01	300	0.9	27
WARRENDALE UPPER RANGE	25	27	19	3-01	300	0.8	27
HAMILTON ISLAND REACH	28	28	25	3-01	300	0.9	27
ENTRANCE TO BONNEVILLE LOCKS	24	32	26	3-01	300	0.6	27

* CONTROLLING DEPTHS FROM SEAWARD IN FEET AT COLUMBIA RIVER DATUM AND MAINTAINED TO 15 FEET. PROJECT LENGTHS ARE IN STATUTE MILES.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION