Chart 12327 NM 24/11

LOWER BAY, CHAPEL HILL, RARITAN BAY AND RIVER CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF MAR 2011
AND SURVEYS TO FEB 2011

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)
LOWER BAY:								
AMBROSE CHANNEL	39.9	45.9	45.8	41.7	4-03	2000	9.2	45
SANDY HOOK CHANNEL (EAST)	35.7	38.9	38.5	33.7	6,7-10	800-2150	4.5	35
SANDY HOOK CHANNEL (BAYSIDE)	11.1	38.8	37.6	31.8	6,7-10;1,2-11	800	2.3	35
TERMINAL CHANNEL (NAVY)	45.0	45.0	45.0	45.0	9-09	400-1050	0.8	A45
TURNING BASIN (NAVY)	45.0	45.0	45.0	45.0	9-09	400-2300	0.6	A45
CHAPEL HILL:								
SOUTH CHANNEL (B)	*28.0	*28.5	*29.6	*24.3	11,12-09	1000	2.6	30
NORTH CHANNEL (B)	*28.8	*29.3	*27.3	*27.6	11,12-09	1000	2.2	30
RARITAN BAY:								
EAST REACH	32.6	38.3	38.0	32.9	4,5-10	600-800	3.9	35
WEST REACH	32.0	40.5	40.0	31.7	4,5-10	600	2.4	35
SEGUINE POINT BEND	33.6	37.7	39.6	31.4	4,5-10	600-1000	1.2	35
RED BANK REACH	33.0	40.5	40.2	33.1	4-10	600	1.02	35
WARD POINT BEND (EAST)	29.7	38.6	36.3	27.9	4-10	600-800	0.82	35
WARD POINT BEND (WEST)	34.4	35.3	32.8	29.7	4-10	600	1.35	35
WARD POINT SECONDARY CHANNEL	18.8	18.8	18.8	18.2	4-10	400	0.83	30
CUTOFF (C)	11.4	16.9	18.6	17.1	6-10	600-1740	1.0	20
RARITAN RIVER:								
GREAT BEDS REACH (D)	17.6	20.4	20.4	16.5	6,7,8,9-10	300	0.76	25
SOUTH AMBOY REACH (D)	19.9	19.1	19.1	16.6	6,7,8,9-10	300	1.2	25

A. PROJECT DEPTHS IN THE TERMINAL CHANNEL AND TURNING BASIN ARE 45 FEET, EXCEPT AROUND PIERS 2 AND 3 WHERE THE PROJECT DEPTH IS 35 FEET. DEPTHS SHOALER THAN PROJECT DEPTHS ARE CHARTED IN CHANNELS.
B. AN * DENOTES A SHOAL OBSTRUCTION. SPORADIC SHOAL OBSTRUCTIONS EXIST WITHIN THE CHANNEL BUT ARE NOT CHARTED. CONSULT CORPS OF ENGINEERS FOR LOCATION OF OBSTRUCTIONS.
C. CONTROLLING DEPTHS ARE REFERENCED FROM SEAWARD WHEN ENTERING FROM RARITAN RIVER.
D. THE CORPS OF ENGINEERS REPORTS MIDDLE HALF OF CHANNEL.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 18521 NM 24/11

COLUMBIA RIVER CHANNEL DEPTHS
ENTRANCE TO MILLER SANDS RANGE

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF FEB 8, 2011

* SEE FOOTNOTES						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)
ENTRANCE RANGE	54	50	50	46	10-10	640	3.3	48
SAND ISLAND RANGE	58	50	50	49	10-10	640	2.2	48
LOWER DESDEMONA SHOAL	46	47	48	43	12-10	600	3.4	43
UPPER DESDEMONA SHOAL	41	43	45	43	12-10	600	3.6	43
TANSY POINT TURN AND RANGE	41	43	44	34	12-10	600	4.8	43
ASTORIA RANGE	40	43	44	42	12-10	600	2.7	43
TONGUE POINT CHANNEL	42	44	44	44	12-10	600	2.2	43
HARRINGTON POINT RANGE	43	44	43	39	12-10	600	2.6	43
MILLER SANDS RANGE	43	46	42	42	12-10	600	2.2	43

* CONTROLLING DEPTHS ROUNDED TO THE NEAREST FOOT
* CONTROLLING DEPTHS IN CHANNELS ENTERING FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER FROM THE ENTRANCE TO HARRINGTON POINT AND COLUMBIA RIVER DATUM ABOVE THAT POINT.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 18523 NM 24/11

COLUMBIA RIVER CHANNEL DEPTHS
MILLER SANDS RANGE TO GULL ISLAND TURN AND CHANNEL
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF FEB 8, 2011

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT COLUMBIA RIVER DATUM (CRD) * SEE FOOTNOTE						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)
MILLER SANDS RANGE	43	46	42	42	12-10	600	2.2	43
PILLAR ROCK LOWER RANGE	41	43	44	41	12-10	600	3.0	43
PILLAR ROCK UPPER RANGE	37	45	46	44	12-10	600	1.9	43
WELCH ISLAND REACH	47	48	45	36	12-10	600	3.2	43
SKAMOKAWA CHANNEL	41	44	43	40	12-10	600	3.3	43
STEAMBOAT REACH	45	46	45	40	12-10	600	1.4	43
PUGET ISLAND RANGE AND TURN	42	43	44	41	12-10	600	3.5	43
WAUNA RANGE	41	43	45	44	12-10	600	2.0	43
DRISCOLL RANGE	41	42	44	43	12-10	600	1.7	43
WESTPORT TURN AND RANGE	41	42	43	45	12-10	600	2.0	43
WESTPORT CHANNEL	39	43	43	42	2-11	600	2.4	43
EUREKA LOWER CHANNEL	46	41	44	46	2-11	600	2.1	43
EUREKA UPPER CHANNEL	42	45	44	43	2-11	600	0.8	43
OAK POINT CHANNEL	45	44	45	43	2-11	600	3.0	43
GULL ISLAND TURN AND CHANNEL	48	47	45	42	2-11	600	2.2	43

* CONTROLLING DEPTHS ROUNDED TO THE NEAREST FOOT
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES TO THE ABOVE INFORMATION

Chart 18524 (Left Panel) NM 24/11

COLUMBIA RIVER CHANNEL DEPTHS
GULL ISLAND TURN AND CHANNEL TO SAINT HELENS TURN
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF FEB 8, 2011

CONTROLLING DEPTHS IN FEET AT COLUMBIA RIVER DATUM (CRD) * SEE FOOTNOTE						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)
GULL ISLAND TURN AND CHANNEL	48	47	45	42	2-11	600	2.2	43
STELLA RANGE	40	41	44	42	2-11	600	3.0	43
FISHER ISLAND CHANNEL	40	47	45	38	2-11	600	0.8	43
WALKER ISLAND CHANNEL	44	45	43	37	2-11	600	1.4	43
BARLOW POINT CHANNEL	47	47	48	46	2-11	600	1.6	43
SLAUGHTERS CHANNEL	43	43	40	42	1-11	600	2.2	43
SLAUGHTERS TURN AND TURN BASIN	42	45	43	42	1-11	600	1.7	43
COTTONWOOD ISLAND LOWER RANGE	40	40	40	39	1-11	600	1.7	43
COTTONWOOD ISLAND TURN	44	46	44	42	1-11	600	2.7	43
COTTONWOOD ISLAND UPPER RANGE	44	43	44	43	1-11	600	1.6	43
KALAMA LOWER RANGE	42	44	44	42	1-11	600	1.8	43
KALAMA UPPER RANGE	42	43	42	42	1-11	600	2.2	43
BYBEE LEDGE CHANNEL	40	42	42	43	1-11	600	2.1	43
MARTIN ISLAND CHANNEL	43	44	42	41	1-11	600	2.0	43
MARTIN ISLAND RANGE	43	44	44	44	1-11	600	1.4	43
COLUMBIA CITY CHANNEL	42	44	44	43	1-11	600	1.2	43
ST. HELENS RANGE	41	45	42	38	1-11	600	2.0	43
ST. HELENS TURN	40	41	43	39	1-11	600	1.7	43

* CONTROLLING DEPTHS ROUNDED TO NEAREST FOOT
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 18525 NM 24/11

COLUMBIA RIVER CHANNEL DEPTHS
SAINT HELENS TURN TO TOMAHAWK BAR

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF FEB 8, 2011

CONTROLLING DEPTHS IN FEET AT COLUMBIA RIVER DATUM (CRD) * SEE FOOTNOTE						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	40	41	43	39	1-11	600	1.7	43
WARRIOR ROCK RANGE	41	45	43	45	1-11	600	1.3	43
DUCK CLUB TURN	41	45	46	46	1-11	600	1.4	43
HENRICI RANGE	40	43	43	41	1-11	600	2.6	43
FALES CHANNEL	45	44	41	42	1-11	600	1.1	43
KNAPP POINT CHANNEL	42	44	42	39	1-11	600	1.8	43
WILLOW LOWER RANGE	41	43	43	41	1-11	600	2.1	43
WILLOW UPPER RANGE	41	43	44	45	1-11	600	1.1	43
MORGAN BAR	44	48	49	49	1-11	600	1.0	43
MORGAN CHANNEL	45	46	46	44	1-11	600	1.5	43
VANCOUVER LOWER CHANNEL	47	48	50	49	1-11	500	1.0	43
VANCOUVER RANGE	45	44	44	41	1-11	500	1.3	43
VANCOUVER UPPER CHANNEL	47	47	45	44	1-11	500	0.9	43
VANCOUVER LOWER TURNING BASIN	33	38	45	44	1-11	800	1.0	43
VANCOUVER UPPER TURNING BASIN	27	27	29	27	1-11	800	0.9	35
TOMAHAWK BAR	17	17	17	18	9-10	300	3.7	27

* CONTROLLING DEPTHS ROUNDED TO THE NEAREST FOOT
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 18526 NM 24/11

COLUMBIA RIVER CHANNEL DEPTHS
MORGAN CHANNEL TO TOMAHAWK BAR

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF FEB 8, 2011

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT COLUMBIA RIVER DATUM (CRD) * SEE FOOTNOTE						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	45	46	46	44	1-11	600	1.5	43
VANCOUVER LOWER CHANNEL	47	48	50	49	1-11	500	1.0	43
VANCOUVER RANGE	45	44	44	41	1-11	500	1.3	43
VANCOUVER UPPER CHANNEL	47	47	45	44	1-11	500	0.9	43
VANCOUVER LOWER TURNING BASIN	33	38	45	44	1-11	800	1.0	43
VANCOUVER UPPER TURNING BASIN	27	27	29	27	1-11	800	0.9	35
TOMAHAWK BAR	17	17	17	18	9-10	300	3.7	27

* CONTROLLING DEPTHS ROUNDED TO THE NEAREST FOOT
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 18584 NM 24/11

UMPQUA RIVER CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF FEB 2011 AND SURVEYS TO JAN 2011

NAME OF CHANNEL	CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)			DATE OF SURVEY	PROJECT DIMENSIONS		
	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER		WIDTH (FEET)	LENGTH (MILES)	DEPTH MLLW (FEET)
UMPQUA RIVER ENTRANCE							
ENTRANCE CHANNEL	19	22	24	1-11	—	1.2	26
UMPQUA RIVER TURN	18	23	23	1-11	200	1.3	22
SALMON HARBOR REACH	21	21	21	10-10	200	2.1	22
BARRETTS RANGE	20	21	21	10-10	200	2.0	22
MILE SIX BAR	20	21	20	10-10	200	2.2	22
CANNERY SANDS							
JCT TO LEEDS ISLAND LIGHT	15	16	14	10-10	200	1.8	22
GARDINER CHANNEL	13	12	10	11-09	200	1.4	22
TURNING BASIN	7	3	3	11-09	—	0.2	22
REEDSPORT REACH							
CHANNEL (9.65-10.8)	16	17	17	10-10	200	1.15	22
TURNING BASIN	22	25	24	10-10	600	0.2	22
CHANNEL (11.0-11.8)	12	12	7	10-10	200	0.8	—
WINCHESTER BAY							
WEST CHANNEL	10	11	12	1-11	100	0.9	16
EAST CHANNEL (0.0-0.7)	15	12	14	1-11	100	0.9	16
EAST CHANNEL (0.7-0.9)	—	5	—	1-11	75	—	12

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

Chart 95016 NM 24/11

SUBMARINE CABLES

Mariners are advised not to anchor, trawl or fish in the vicinity of submarine cables.

Chart 97021 NM 24/11

SUBMARINE CABLES

Mariners are advised not to anchor, trawl or fish in the vicinity of submarine cables.