CHART 11537 NM 27/00

CAPE FEAR RIVER CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO MAY 2000

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)
BALDHEAD SHOAL	39.1	38.8	38.7	37.9	2,3-00	500	5.0	40
SMITH ISLAND	20.0	33.4	40.8	41.2	4-00	500	1.0	40
BALDHEAD CASWELL CHANNEL	35.2	40.4	41.0	42.9	12-99	500	0.4	40
SOUTHPORT CHANNEL	41.6	41.0	40.2	40.2	3-00	500	1.0	40
BATTERY ISLAND CHANNEL	44.7	44.7	41.2	40.4	3-00	500	0.5	40
LOWER SWASH	36.0	38.5	39.8	35.7	3-99	400	1.6	38
SNOWS MARSH	36.6	38.2	37.5	36.3	4-00	400	3.1	38
HORSESHOE SHOAL	32.4	37.5	36.8	36.6	4-00	400	1.2	38
REAVES POINT	36.7	36.7	37.7	36.4	4-00	400	1.2	38
LOWER MIDNIGHT	36.3	38.1	39.5	35.2	2-00	400	1.6	38
UPPER MIDNIGHT	35.7	37.9	36.4	34.5	4-00	400	2.7	38
LOWER LILLIPUT	36.6	38.0	37.6	35.4	4-00	400	1.9	38
UPPER LILLIPUT	35.8	36.7	38.1	37.1	11-99	400	1.9	38
KEG ISLAND	37.2	38.0	37.2	32.4	3-00	400	1.4	38
BIG ISLAND LOWER	37.9	38.0	38.0	34.1	3-00	400	0.8	38
BIG ISLAND UPPER	35.8	36.4	36.2	34.1	3-00	400	0.5	38
LOWER BRUNSWICK	37.1	38.2	37.1	34.9	3-00	400	1.6	38
UPPER BRUNSWICK	35.7	39.3	39.3	36.3	5-00	400	1.0	38
FOURTH EAST JETTY	37.9	38.3	37.7	35.7	2-00	400	1.2	38
BETWEEN CHANNEL	35.4	39.9	39.0	38.6	2-00	550	0.8	38
ANCHORAGE BASIN & APP CHANNEL	32.0	36.6	36.7	32.8	4-00	450-1090	1.3	38
HWY 74-76 TO BATTLESHIP	30.7	32.9	36.2	29.0	12-99	400	0.6	32
BATTLESHIP TO HWY 117 INCLUDING TURNING BASIN	8.6	30.0	32.2	29.4	3-99;11-99	190-850	-	32
HWY 117 TO HILTON BR	28.1	29.8	31.8	26.7	3-99	200-400	0.5	32
THENCE TO END OF PROJECT AT 34°16'36"N, 77°57'01"W	23.1	23.6A	23.5B	21.9C	6-99	200	1.2	25
TURNING BASIN	24.6	21.0	22.2	16.1	6-99	500	0.1	25

A. EXCEPT FOR SHOALING TO 21.4 FEET FOR THE LAST 150 FEET OF THE PROJECT.
B. EXCEPT FOR SHOALING TO 16.4 FEET FOR THE LAST 150 FEET OF THE PROJECT.
C. EXCEPT FOR SHOALING TO 10.2 FEET FOR THE LAST 150 FEET OF THE PROJECT.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CHART 12312 NM 27/00

DELAWARE RIVER CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF MAY 2000

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)
CHERRY ISLAND RANGE	41.4	41.7	41.6	40.4	2-99	800	4.33	40
BELLEVUE RANGE	37.5	42.2	42.4	41.6	4-99	800	3.05	40
MARCUS HOOK RANGE	31.9	35.2	37.9	40.7	8-99	800	4.25	40
CHESTER RANGE	38.6	40.6	40.6	39.8	3-99	800	1.82	40
EDDYSTONE RANGE	40.4	40.9	42.8	41.5	7-98	800	1.08	40
TINICUM RANGE	37.7	39.9	39.6	38.3	3-99	800	3.03	40
BILLINGSPORT RANGE	40.0	41.1	42.1	36.4	2-99	800	1.15	40
MIFFLIN RANGE	39.0	39.9	41.2	40.3	10-98	800	2.83	40
EAGLE POINT RANGE (NAVY YARD)	41.0	41.5	41.5	41.8	5-99	800	1.74	40
HORSESHOE BEND	38.6	44.6	44.5	43.2	5-99	800-500	0.80	40
HORSESHOE RANGE AND REACH M	38.5	41.0	43.7	45.5	5-99	500-400	1.17	40
REACH M TO BENJAMIN FRANKLIN BRIDGE	19.9	30.1	40.4	38.5	7-99	400	2.95	40
BENJAMIN FRANKLIN BRIDGE TO CAMBRIA ST.	40.2	42.0	40.6	41.1	12-98	400	2.00	40
CAMBRIA ST. TO ALLEGHENY AVE.	39.8	39.8	40.5	39.4	12-98	400	0.42	40
FISHER POINT RANGE	41.0	41.7	41.0	40.9	2-00	400	0.70	40
FISHER CHANNEL	41.7	41.7	43.1	41.9	2-00	400	0.31	40
DRAW CHANNEL	42.3	44.4	44.1	42.7	2-00	400	0.74	40

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

CHART 12313 NM 27/00

DELAWARE RIVER CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF MAY 2000

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)
TINICUM RANGE	37.7	39.9	39.6	38.3	3-99	800	3.03	40
BILLINGSPORT RANGE	40.0	41.1	42.1	36.4	2-99	800	1.15	40
MIFFLIN RANGE	39.0	39.9	41.2	40.3	10-98	800	2.83	40
EAGLE POINT RANGE (NAVY YARD)	41.0	41.5	41.5	41.8	5-99	800	1.74	40
HORSESHOE BEND	38.6	44.6	44.5	43.2	5-99	800-500	0.80	40
HORSESHOE RANGE AND REACH M	38.5	41.0	43.7	45.5	5-99	500-400	1.17	40
REACH M TO BENJAMIN FRANKLIN BRIDGE	19.9	30.1	40.4	38.5	7-99	400	2.95	40
BENJAMIN FRANKLIN BRIDGE TO CAMBRIA ST.	40.2	42.0	40.6	41.1	12-98	400	2.00	40
CAMBRIA ST. TO ALLEGHENY AVE.	39.8	39.8	40.5	39.4	12-98	400	0.42	40
FISHER POINT RANGE	41.0	41.7	41.0	40.9	2-00	400	0.70	40
FISHER CHANNEL	41.7	41.7	43.1	41.9	2-00	400	0.31	40

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

CHART 12314 NM 27/00

DELAWARE RIVER CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF MAY 2000

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)
FISHER PT. RANGE (CHARTS 12313,12312)	41.0	41.7	41.0	40.9	2-00	400	0.70	40
FISHER CHANNEL	41.7	41.7	43.1	41.9	2-00	400	0.31	40
DRAW CHANNEL	42.3	44.4	44.1	42.7	2-00	400	0.74	40
DELAIR RANGE	40.3	40.7	40.1	39.3	2-00	400	0.98	40
BRIDESBURG CHANNEL	42.1	42.1	41.5	34.6	2-00	400	0.31	40
FRANKFORD CHANNEL	40.2	40.3	37.0	33.0	3-00	400	1.05	40
TACONY CHANNEL	38.7	40.6	41.4	41.1	3-00	400	1.17	40
TORRESDALE RANGE	38.0	39.4	41.2	42.0	3-00	400	1.39	40
MUD ISLAND RANGE	40.5	41.3	40.4	38.4	3-00	400	1.67	40
ENTERPRISE RANGE	40.9	40.9	38.5	36.3	4-00	400	1.70	40
BEVERLY CHANNEL	33.8	40.8	42.1	35.0	4-00	400	0.65	40
EDGEWATER CHANNEL	33.7	37.5	40.6	38.9	4-00	400	1.37	40
DEVLIN CHANNEL	39.2	40.6	40.6	40.1	4-00	400	1.03	40
LEHIGH CHANNEL	39.1	43.0	41.6	41.1	4-00	400	0.66	40
CANAL CHANNEL	40.4	44.8	42.7	40.3	4-00	500	0.19	40
BRISTOL RANGE	41.6	42.6	43.1	40.3	4-00	400	0.62	40
KEYSTONE RANGE	33.2	38.6	43.7	42.8	4-00	400	0.42	40
LANDRETH CHANNEL	34.3	40.0	37.3	39.8	4-00	400	1.21	40
FLORENCE BEND	40.6	40.6	42.9	35.8	1,4-00	500	0.61	40
FLORENCE RANGE	35.3	41.9	41.9	36.8	1-00	400	1.34	40
ROEBLING RANGE	34.6	43.5	43.1	41.5	1-00	400	0.34	40
KINKORA RANGE	36.2	38.9	39.9	38.6	1-00	400	1.15	40
PENN CHANNEL	36.9	41.8	43.7	34.3	1-00	450	0.36	40
NEWBOLD CHANNEL	13.6	20.0	26.7	32.0	1-00	400	0.52	40
BLAKE CHANNEL	21.5	25.6	26.9	27.7	1-00	400	0.17	25
WHITEHILL RANGE	24.0	24.2	24.7	24.3	1-00	300	1.03	25
RARITAN CHANNEL	24.9	27.8	27.9	27.4	12-99	400	0.24	25
BORDENTOWN RANGE	19.6	21.8	25.2	25.2	12-99	300	0.65	25
DUCK ISLAND RANGE	18.6	19.5	19.5	20.6	12-99	300	1.25	25
PERRIWIG CHANNEL	20.9	20.9	21.3	21.8	9-98	400	0.24	25
BILES ISLAND CHANNEL	25.4	24.8	24.3	20.6	9-98	300	0.38	25
COCHRAN CHANNEL	27.0	27.8	25.4	17.1	9-98	300	0.31	25
MOON CHANNEL	6.4	13.4	12.2	11.8	9,10-98	500	0.39	25
TRENTON CHANNEL:								
SOUTH REACH		10.8	10.8		10-98	200	0.49	12
NORTH REACH		9.6	9.6		10-98	200-300	0.58	12

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

CHART 18525 NM 27/00

COLUMBIA RIVER CHANNEL DEPTHS
SAINT HELENS TURN TO TOMAHAWK BAR

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO APR 2000

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	46	43	43	40	2-00	600	1.7	40
WARRIOR ROCK RANGE	40	40	41	43	2-00	600	1.3	40
DUCK CLUB TURN	37	41	42	43	2-00	600	1.4	40
HENRICI RANGE	39	38	39	39	2-00	600	2.6	40
FALES CHANNEL	42	41	40	38	2-00	600	1.1	40
KNAPP POINT CHANNEL	42	41	40	37	2-00	600	1.8	40
WILLOW LOWER RANGE	39	39	37	36	2-00	600	2.1	40
WILLOW UPPER RANGE	40	42	41	44	2-00	600	1.1	40
MORGAN TURN	39	44	46	46	2-00	600	1.0	40
MORGAN CHANNEL	47	45	42	44	2-00	600	1.5	40
VANCOUVER LOWER CHANNEL	48	50	52	46	2-00	500	1.0	40
VANCOUVER RANGE	40	40	40	39	4-00	500	1.3	40
VANCOUVER UPPER CHANNEL	42	42	39	38	4-00	500	0.9	40
VANCOUVER LOWER TURNING BASIN	33	33	38	39	4-00	800	1.0	40
VANCOUVER UPPER TURNING BASIN	29	24	25	23	4-00	800	0.9	35
TOMAHAWK BAR	11	15	17	15	3-00	300	3.7	27

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

CHART 18526 NM 27/00

COLUMBIA RIVER CHANNEL DEPTHS
MORGAN CHANNEL TO TOMAHAWK BAR

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO APR 2000

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	45	42	44	2-00	600	1.5	40
VANCOUVER LOWER CHANNEL	48	50	52	46	2-00	500	1.0	40
VANCOUVER RANGE	40	40	40	39	2-00	500	1.3	40
VANCOUVER UPPER CHANNEL	42	42	39	38	2-00	500	0.9	40
VANCOUVER LOWER TURNING BASIN	33	33	38	39	4-00	800	1.0	40
VANCOUVER UPPER TURNING BASIN	29	24	25	23	4-00	800	0.9	35
TOMAHAWK BAR	11	15	17	15	3-00	300	3.7	27

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

CHART 18581 NM 27/00

YAQUINA BAY AND RIVER CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO APR 2000

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)
CHANNEL ENTRANCE 44°36'23"N, 124°05'24"W TO FIRST TURN	24	30	26	4-00	400-300	1.3	40-30
THENCE TO TURNING BASIN	24	29	26	6-99	300-400	1.3	30
TURNING BASIN	16	22	23	6-99	300-1200	0.3	30
THENCE TO YAQUINA	15	12	12	7-98	200	1.6	18
THENCE TO END OF PROJECT	02A	07	05B	7-98	150	9.7	10

A. SHOAL TO BARE AT 44°36'57.7"N, 123°56'34.2"W.
B. SHOAL TO BARE AT 44°36'42.0"N, 123°56'55.5"W.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CHART 18584 NM 27/00

UMPQUA RIVER CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF APR 2000 AND SURVEYS TO APR 2000

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)
ENTRANCE CHANNEL TO LT. 21	16	18	17	9-99; 4-00	200	7.0	26-22
LT 21 TO REEDSPORT	17	18	17	9-99	200	2.7	22
REEDSPORT TURNING BASIN	22	24	23	9-99	600	0.2	22
LT. 21 TO GARDINER	15	14	11	9-99	200	1.15	22
TURNING BASIN	3	2	2	9-98; 5, 9-99	500	0.2	22

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

CHART 18587 NM 27/00

COOS BAY AND ISTHMUS SLOUGH CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO APR 2000

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)
ENTRANCE RANGE	39	38	36	9-98;4-00	---	1.9	47-37
ENTRANCE RANGE AND TURN	38	45	33	9-99	300-1050	0.6	37
INSIDE RANGE	33	39	34	9-99	300	0.6	37
COOS BAY RANGE	33	38	35	9-99	300	1.6	37
EMPIRE RANGE	36	37	37	9-99	300	1.3	37
LOWER JARVIS RANGE	36	37	36	9-99;4-00	300	0.8	37
JARVIS TURN	37	38	34	9-99;4-00	300	0.5	37
UPPER JARVIS RANGE	35	35	34	8,9,11-99;3,4-00	300	1.9	
NORTH BEND LOWER RANGE	37	39	37	3-00	400	0.7	37
NORTH BEND RANGE	38	38	37	5-99	400	0.9	37
NORTH BEND UPPER RANGE	36	37	36	5-99	400	0.6	37
LOWER TURNING BASIN	37	37	32	10-99	400-800	0.3	37
FERNDALE LOWER RANGE	34	39	38	3-00	400	0.4	37
FERNDALE TURN	34	38	37	3-00	400	0.2	37
FERNDALE UPPER RANGE	32	37	37	3-00	400	0.7	37
MARSHFIELD RANGE	30	37	36	3-00	400	0.4	37
MARSHFIELD RANGE TO ISTHMUS SLOUGH	36	37	38	3-00	150-750	0.9	37
ISTHMUS SLOUGH	19	20	19	4-85	150	2.0	22

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

CHART 18588 NM 27/00

COQUILLE RIVER CHANNEL

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO APR 2000

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)
A ENTRANCE CHANNEL	13	11	12	4-00	200	0.33	13.0
ENTRANCE CHANNEL TO PORT DOCK (43°07'15.9"N, 124°24'50.5"W)	14	13	8	4-00	200	0.63	13.0
THENCE TO END OF PROJECT	11	14	15	4-00	150	0.38	13.0

A. THE ENTRANCE CHANNEL IS SUBJECT TO FREQUENT CHANGES AND THE DEEPEST WATER IS NOT ALWAYS ON THE RANGE.

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

CHART 18652 NM 27/00

SUISUN BAY AND SAN JOAQUIN RIVER

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO JAN 2000

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)
SUISUN PT. REACH	45.2	45.8	47.9	11,12-97	300	0.8	35
BULLS HEAD CHANNEL	31.1	32.8	34.7	11,12-97	300-350	1.2	35
EAST BULLS HEAD CHANNEL	33.1	32.8	33.2	11,12-97/ 11-99	350	1.1	35
PT. EDITH CROSSING RANGE	36.8	34.0	33.8	11-99	350	1.1	35
PRESTON PT. REACH	36.3	35.0	34.2	11-99	350	0.9	35
ROE ISLAND CHANNEL	33.3	34.3	34.5	11-99	350	1.1	35
PORT CHICAGO REACH	37.2	36.9	36.7	11-99	350	0.52	35
MIDDLE GROUND CHANNEL							
WEST REACH	35.6	36.2	35.6	11-99	350	1.29	35
EAST REACH	35.0	36.1	34.5	11-99	350	1.09	35
NEW YORK SLOUGH							
WEST REACH	32.1	34.9	35.5	11,12-97/ 1-00	400	1.3	35
EAST REACH	34.3	34.7	34.2	11,12-97/ 1-00	400	1.7	35
SAN JOAQUIN RIVER							
ANTIOCH REACH	30.1	31.3	30.1	3,12-99	400	3.3	35

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