CHART 12371 NM 31/99

NEW HAVEN HARBOR CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF MAY 1999 AND SURVEYS TO APRIL 1998

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	35.2	36.9	35.8	35.7	4-98	500	1.1	35
LIGHTHOUSE POINT REACH	33.6	35.4	35.3	33.4	4-98	400-500	2.9	35
NEW HAVEN REACH	31.0	31.8	30.9	31.1	4-98	800-500	1.0	35
EAST HAVEN REACH	13.2	16.6	15.0	17.0	1,6-83	500-100	0.1	22
QUINNIPIAC RIVER								
FERRY ST. BRIDGE REACH	A14.7	16.0	16.4	13.8	12-93	200	0.6	B 18
GRAND AVE. BRIDGE REACH	11.5	12.7	12.8	11.8	12-93	D 200	0.5	22-16
MILL RIVER								
ENTRANCE CHANNEL	E6.9	E6.9	7.7	6.6	6-88	200	0.3	12
EAST FORK	F12.2	F11.0	G10.9	H10.1	6-88	100	0.2	12
WEST FORK	+0.2	1.5	2.2	2.4	1-80	125	0.3	12

A. EXCEPT SHOALING TO 12.7 FEET ON NORTH LIMITS OF CHANNEL.
B. THE MAINTAINED DEPTH IS 16 FEET.
C. EXCEPT SHOALING TO 7.0 FEET IN POSITION 41°18'31.5"N
D. THE PROJECT WIDTH IS 200-400 FEET AND THE MAINTAINED WIDTH IS 200 FEET.
E. EXCEPT SHOALING TO 3.8 FEET WITHIN 25 FEET OF CHAPEL ST.BRIDGE FENDER.
F. EXCEPT SHOALING TO 0.9 FEET IN LAST 430 FEET OF REACH.
G. EXCEPT SHOALING TO 0.5 FEET IN LAST 430 FEET OF REACH.
H. EXCEPT SHOALING TO 0.2 FEET IN LAST 430 FEET OF REACH.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CHART 12375 NM 31/99

CONNECTICUT RIVER CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF FEB 1999 AND SURVEYS TO JUNE 1998

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)
SAYBROOK OUTER BAR CHANNEL	7.1	10.9	10.8	6-98	300	0.5	15
SAYBROOK SHOAL CHANNEL	8.6	8.8	14.1	6-86	300	0.7	15
CALVES ISLAND BAR CHANNEL	15.0	15.0	14.6	9,10-91	200-150	0.9	15
ESSEX SHOAL CHANNEL	14.1	14.1	14.1	9,10-91	150	0.5	15
BROCKWAY BAR CHANNEL	12.0	13.7	14.2	6-88	150	0.4	15

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

CHART 12377 (SIDE A) NM 31/99

CONNECTICUT RIVER CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF FEB 1999 AND SURVEYS TO JUNE 1998

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)
BROCKWAY BAR CHANNEL	12.0	13.7	14.2	6-88	150	0.4	15
POTASH BAR CHANNEL	12.6	12.8	12.7	8-83	150	0.4	15
EDDY ROCK SHOAL CHANNEL	14.1	13.3	12.5	7-83	200-150	0.4	15
WARNERS QUARRY BAR CHANNEL	14.5	14.0	12.9	5-86	200-150	0.5	15
HADDAM ISLAND BAR CHANNEL	13.9	14.0	10.1	8-83	150	0.3	15
ROCK LANDING BAR CHANNEL	12.8	13.3	13.3	1,2,3-91	150	0.6	15
HIGGANUM CREEK SHOAL CHANNEL	13.7	14.0	13.8	8-94	150	0.3	15
SCOVILL ROCK BAR CHANNEL	15.0	14.9	14.3	10-89	150	0.4	15
SEARS SHOAL CHANNEL	9.5	9.8	9.9	6-98	150	0.5	15
SEARS UPPER BAR CHANNEL	12.7	13.2	13.7	12-97	150	0.5	15
COBALT SHOAL CHANNEL	13.5	14.1	15.0	5-70	150	0.9	15
PAPER ROCK SHOAL CHANNEL	13.9	13.7	13.4	5-86	150	0.5	15

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

CHART 12377 (SIDE B) NM 31/99

CONNECTICUT RIVER CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF AUG 1998 AND SURVEYS TO JUL 1998

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)
MOUSE ISLAND BAR CHANNEL	15.0	13.3	11.8	7-83	150	0.7	15
PORTLAND BAR CHANNEL	11.6	11.9	12.9	7-83	150	0.3	15
CROMWELL BAR CHANNEL	14.5	14.1	13.3	7-83	150	0.6	15
GILDERSLEEVE ISLAND SHOAL CHANNEL	11.2	14.4	11.1	9-89	150	0.9	15
PISTOL POINT BAR CHANNEL	8.7	9.6	10.2	12-97	150	0.9	15
BROWNSTONE BAR CHANNEL	15.0	13.7	13.1	9-89	150	0.9	15
DIVIDEND BAR CHANNEL	7.7	7.8	8.1	7-98	150	0.6	15
GLASTONBURY-TWO PIERS BAR CHANNEL	11.6	12.1	12.6	4-86	150	1.2	15
GLASTONBURY UPPER BAR CHANNEL	12.3	12.2	12.0	4-86	150	0.9	15
PRESS BARN BAR CHANNEL	14.1	13.2	12.6	9-89	150	0.1	15
NAUBUC BAR CHANNEL	15.0	15.0	13.6	11-82	150	0.5	15
CYS HOLLOW BAR CHANNEL	15.0	15.0	13.9	9-89	150	0.5	15
WETHERSFIELD SHOAL CHANNEL	11.8	12.2	12.8	9-89	150	0.4	15
CLAY BANKS BAR CHANNEL	12.3	12.9	12.9	1,2,3-91	150	1.6	15
HARTFORD BAR CHANNEL	9.7	10.2	13.5	10-89	150	0.4	15

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

CHART 18521 NM 31/99

COLUMBIA RIVER CHANNEL DEPTHS
ENTRANCE TO MILLER SANDS RANGE
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO MAY 1999

* 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 * (MILES)	DEPTH * (FEET)
ENTRANCE RANGE	58	59	55	44	10-98	2640	3.3	48
SAND ISLAND RANGE (CLATSOP SPIT)	51	51	53	49	10-98, 1-99	2640	2.2	48
LOWER DESDEMONA SHOAL	44	45	46	39	5-99	600	3.4	40
UPPER DESDEMONA SHOAL	35	43	45	46	5-99	600	3.7	40
TANSY POINT TURN AND RANGE	37	40	40	38	5-99	600	4.7	40
ASTORIA RANGE	40	42	41	37	5-99	600	2.7	40
TONGUE POINT CHANNEL	36	40	43	43	5-99	600	2.2	40
HARRINGTON POINT RANGE	40	42	40	36	5-99	600	2.6	40
MILLER SANDS RANGE	40	44	39	28	5-99	600	2.2	40

* 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. PROJECT LENGTHS ARE IN STATUTE MILES.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CHART 18526 NM 31/99

COLUMBIA RIVER CHANNEL DEPTHS
MORGAN CHANNEL TO TOMAHAWK BAR
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO APR 1999

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	46	46	44	42	4-99	600	1.5	40
VANCOUVER LOWER CHANNEL	48	50	53	54	4-99	500	1.0	40
VANCOUVER RANGE	41	42	41	41	4-99	500	1.3	40
VANCOUVER UPPER CHANNEL	41	42	40	40	4-99	500	0.9	40
VANCOUVER LOWER TURNING BASIN	29	32	38	40	4-99	800	1.0	40
VANCOUVER UPPER TURNING BASIN	32	28	26	25	4-99	800	0.9	35
TOMAHAWK BAR	14	15	15	16	4-98, 2-99	300	3.7	27

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

CHART 18584 NM 31/99

UMPQUA RIVER CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO MAY 1999

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	18	21	20	5-99	200	7.0	26-22
LT 21 TO REEDSPORT	18	19	17	5-99	200	2.7	22
REEDSPORT TURNING BASIN	26	22	24	10-98,5-99	600	0.2	22
LT. 21 TO GARDINER	13	14	12	5-99	200	1.15	22
TURNING BASIN	3	2	2	9-98, 5-99	500	0.2	22

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

CHART 18587 NM 31/99

COOS BAY AND ISTHMUS SLOUGH CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO MAY 1999

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	40	40	41	9-98	---	1.9	47-37
ENTRANCE RANGE AND TURN	37	46	35	5-99	300-1050	0.6	37
INSIDE RANGE	36	39	36	5-99	300	0.6	37
COOS BAY RANGE	34	37	36	5-99	300	1.6	37
EMPIRE RANGE	36	36	36	5-99	300	1.3	37
LOWER JARVIS RANGE	35	35	33	5-99	300	0.8	37
JARVIS TURN	36	37	34	5-99	300	0.5	37
UPPER JARVIS RANGE	33	35	34	5-99	300	1.9	
NORTH BEND LOWER RANGE	37	38	36	5-99	400	0.7	37
NORTH BEND RANGE	36	38	37	2-99	400	0.9	37
NORTH BEND UPPER RANGE	38	38	37	2-99	400	0.6	37
LOWER TURNING BASIN	34	38	35	2-99	400-800	0.3	37
FERNDALE LOWER RANGE	30	38	38	5-99	400	0.4	37
FERNDALE TURN	26	35	38	5-99	400	0.2	37
FERNDALE UPPER RANGE	A27	35	36	5-99	400	0.7	37
MARSHFIELD RANGE	32	34	31	5-99	400	0.4	37
MARSHFIELD RANGE TO ISTHMUS SLOUGH	29	34	35	5-99	150-750	0.9	37
ISTHMUS SLOUGH	19	20	19	4-85	150	2.0	22

A. SHOALING TO 9 FT IN OUTSIDE 75 FT OF QUARTER.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSOQUENT TO THE ABOVE INFORMATION