CHART 11316 NM 5/00

MATAGORDA SHIP CHANNEL

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF 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)
SEA BAR AND JETTY CHANNEL	35.0	36.0	35.0	2-99	300	2.70	38
THENCE TO LIGHT 48	34.0	37.0	37.0	2-99	300-200	10.80	36
THENCE TO LIGHT 76	30.0	30.0	30.0	3-99	200	7.40	36
THENCE TO POINT COMFORT TURNING BASIN	36.0	36.0	36.0	6-98	200-399	0.90	36
TURNING BASIN	36.0	36.0	36.0	2-99	1000	0.17	36

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

CHART 12311 NM 5/00

CHRISTINA RIVER CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF NOV 1999 AND SURVEYS TO OCT 1999

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT CHRISTINA RIVER DATUM					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT MILES)	DEPTH (FEET)
ENTRANCE CHANNEL TO THE UPPER END OF THE TURNING BASIN	23.9	24.3	27.1	10-99	500-340	0.70	38
THENCE TO THE LOBDELL CANAL	33.6	31.1	30.0	10-99	400	0.33	35
TURNING BASIN (OPPOSITE TERMINAL WHARF)	30.3	30.3	30.3	10-99	320	0.34	38

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

CHART 12312 NM 5/00

CHRISTINA RIVER CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF NOV 1999 AND SURVEYS TO OCT 1999

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT CHRISTINA RIVER DATUM					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT MILES)	DEPTH (FEET)
ENTRANCE CHANNEL TO THE UPPER END OF THE TURNING BASIN	23.9	24.3	27.1	10-99	500-340	0.70	38
THENCE TO THE LOBDELL CANAL	33.6	31.1	30.0	10-99	400	0.33	35
TURNING BASIN (OPPOSITE TERMINAL WHARF)	30.3	30.3	30.3	10-99	320	0.34	38

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

CHART 12314 NM 5/00

DELAWARE RIVER CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF OCT 1999

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)	40.5	40.5	41.8	40.3	12-98	400	0.70	40
FISHER CHANNEL	42.3	42.3	43.6	41.5	12-98	400	0.31	40
DRAW CHANNEL	42.0	44.3	43.8	43.5	12-98	400	0.74	40
DELAIR RANGE	38.5	38.9	39.3	38.6	1-99	400	0.98	40
BRIDESBURG CHANNEL	42.2	43.4	43.4	35.5	1-99	400	0.31	40
FRANKFORD CHANNEL	41.7	40.1	39.1	35.5	1-99	400	1.05	40
TACONY CHANNEL	37.4	40.3	41.5	42.0	1-99	400	1.17	40
TORRESDALE RANGE	37.4	40.3	42.4	40.4	1-99	400	1.39	40
MUD ISLAND RANGE	40.7	39.1	39.1	38.5	1-99	400	1.67	40
ENTERPRISE RANGE	42.0	41.4	39.7	36.7	2-99	400	1.70	40
BEVERLY CHANNEL	38.7	42.0	43.1	35.9	2-99	400	0.65	40
EDGEWATER CHANNEL	34.8	39.8	41.2	37.3	2-99	400	1.37	40
DEVLIN CHANNEL	39.9	40.9	41.4	37.3	2-99	400	1.03	40
LEHIGH CHANNEL	40.8	42.8	42.2	40.6	8-99	400	0.66	40
CANAL CHANNEL	41.8	44.8	43.4	39.1	8-99	500	0.19	40
BRISTOL RANGE	39.8	43.0	43.0	41.6	8-99	400	0.62	40
KEYSTONE RANGE	33.4	39.8	44.0	41.8	8-99	400	0.42	40
LANDRETH CHANNEL	33.4	40.4	41.0	39.7	7-99	400	1.21	40
FLORENCE BEND	40.7	42.1	42.9	35.9	7-99	500	0.61	40
FLORENCE RANGE	35.5	42.2	42.3	37.4	7-99	400	1.34	40
ROEBLING RANGE	35.5	43.2	42.1	40.2	7-99	400	0.34	40
KINKORA RANGE	38.0	40.1	38.8	35.8	7-99	400	1.15	40
PENN CHANNEL	38.9	41.7	42.8	35.4	7-99	450	0.36	40
NEWBOLD CHANNEL	14.2	19.8	26.5	31.2	7-99	400	0.52	40
BLAKE CHANNEL	23.5	24.8	25.3	25.2	7-99	400	0.17	25
WHITEHILL RANGE	22.5	23.5	22.2	23.2	7-99	300	1.03	25
RARITAN CHANNEL	24.0	27.3	27.7	25.0	7-99	400	0.24	25
BORDENTOWN RANGE	18.7	21.4	25.8	22.0	7-99	300	0.65	25
DUCK ISLAND RANGE	19.7	20.7	20.0	20.6	7-99	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 12327 NM 5/00

ARTHUR KILL, KILL VAN KULL, NEWARK BAY,
PASSAIC AND HACKENSACK RIVERS CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS-
REPORT OF SEP 1999 AND SURVEYS TO MAY 1999

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)

NAME OF CHANNEL	DEPTH MLLW (FEET)	WIDTH (FEET)	DATE OF SURVEY
ARTHUR KILL (OUTERBRIDGE REACH TO N. OF SHOOTERS I. REACH)	A22.9	800-500	5-99
KILL VAN KULL (CONSTABLE HOOK REACH TO BERGEN PT. WEST REACH)	34.0	2000-800	12-96;2-97;5-99
S. OF SHOOTERS I. REACH	B5.0	400	8-90
NEWARK BAY (NEWARK BAY S. REACH TO DROYERS PT. REACH)	C17.0	1750-300	3-99
PASSAIC RIVER (KEARNY PT. REACH TO ARLINGTON REACH)	D,E0.8	300-200	6,11-89;2,3-98
HACKENSACK RIVER (DROYERS PT. REACH TO TURNING BASIN)	18.7	300-800	3-99

A. A DEPTH OF 34.5 FEET WAS AVAILABLE IN THE MIDDLE HALF.
B. OBSTUCTIONS INTERSPERSED IN THE TWO RIGHT QUARTERS. THERE IS A MINIMUM DEPTH OF 5.9 FEET OVER WRECKAGE.
C. A DEPTH OF 22.4 FEET WAS AVAILABLE IN THE MIDDLE HALF. EXCEPT FOR SHOALING TO 9 FT AT 40° 42' 11.4" N 74° 06' 56.1" W.
D. A DEPTH OF 6.5 FEET WAS AVAILABLE IN THE MIDDLE HALF.
E. SHOALING TO BARE ALONG THE LEFT OUTSIDE QUARTER AT THE TURN AT 40°45'43"N, 74°09'49"W.

NOTE 1. SEE LARGE SCALE CHARTS FOR MORE DETAIL OF REACHES.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGING CONDITIONS SUBSEQUENT TO THE ABOVE

CHART 12331 NM 5/00

RARITAN BAY, ARTHUR KILL AND RARITAN RIVER

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF SEP 1999 AND SURVEYS TO JULY 1999

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)
RARITAN BAY-WEST REACH	33.8	38.7	38.9	29.7	7-99	600	2.4	35
SEGUINE POINT BEND	27.7	34.8	39.1	23.7	7-99	600-800	1.2	35
RED BANK REACH	32.6	39.8	40.1	31.9	7-99	600	1.2	35
WARD POINT BEND (EAST)	29.7	37.8	36.5	25.7	7-99	600-800	1.1	35
WARD POINT BEND (WEST)	34.4	33.9	32.8	31.0	7-99	600-800	0.8	35
OUTERBRIDGE REACH	33.2	34.3	35.0	32.2	4-96;7-99	600-800	0.8	35
PORT SOCONY REACH	34.9	35.3	35.7	34.9	5-99	600-800	0.8	35
PORT READING REACH	28.1	35.5	35.3	22.9	5-99	500	1.8	35
FRESH KILLS REACH	32.2	35.7	36.7	34.4	5-99	500	1.8	35
RARITAN RIVER CUTOFF	16.7	19.3	19.3	11.6	3-99	600-1100	1.0	20
WARD POINT SECONDARY CHANNEL	23.6	22.7	22.5	21.9	3-91	400	0.9	30
GREAT BEDS REACH	12.4	16.0	17.9	16.2	4-99	300	0.6	25
SOUTH AMBOY REACH	18.6	21.2	18.0	16.0	4-99	300	1.2	25

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

CHART 12333 NM 5/00

ARTHUR KILL, KILL VAN KULL, NEWARK BAY AND UPPER BAY 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	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
FRESH KILLS REACH	32.2	35.7	36.7	34.4	5-99	500	1.8	35
TREMLEY POINT REACH	32.6	37.5	36.1	32.2	5-99	600	0.9	35
PRALLS ISLAND REACH	33.2	35.0	35.7	31.0	5-99	500	1.2	35
GULFPORT REACH	27.8	37.0	36.8	32.7	5-99	500-600	1.1	35
ELIZABETHPORT REACH	33.7	35.8	35.8	33.7	5-99	500-600	1.1	35
N OF SHOOTERS ISLAND REACH	28.8	32.5	32.5	28.8	12-92;1-93	600	1.0	35
S OF SHOOTERS ISLAND REACH	18.6	24.1	14.0	A 5.0	8-90	400	1.0	30
BERGEN PT. WEST REACH	38.1	40.0	40.0	37.1	12-96;2-97;5-99	800	1.1	35
BERGEN PT. EAST REACH	37.4	40.0	40.0	39.5	12-96;2-97	800	1.0	35
CONSTABLE HOOK REACH	34.0	40.0	40.0	34.8	12-96;2-97	2000-800	2.2	35
NEWARK BAY SOUTH REACH	40.3	40.1	40.2	39.1	3-99	1750-1000	1.4	40
NEWARK BAY MIDDLE REACH	36.9	40.6	37.6	34.6	3-99	1750-500	1.4	40
ELIZABETH CHANNEL	39.3	39.8	39.9	39.1	3-99	1350-500	1.4	40
PORT NEWARK CHANNEL:								
PORT NEWARK(BRANCH CHANNEL)	36.9	37.9	36.8	35.8	3-99	1050-400	0.4	40
PIERHEAD CHANNEL	36.5	37.4	35.9	36.0	3-99	300	0.7	40

A. OBSTRUCTIONS INTERSPERSED IN THE TWO RIGHT QUARTERS. THERE IS A MINIMUM DEPTH OF 5.9 FT OVER WRECKAGE.

* CONTROLLING DEPTHS IN CHANNELS OF RARITAN BAY- EAST REACH TO AND INCLUDING FRESH KILLS REACH ARE REFERENCED FROM SEAWARD WHEN ENTERING FROM LOWER NEW YORK BAY. CONTROLLING DEPTHS FROM CONSTABLE HOOK TO AND INCLUDING TREMLEY POINT REACH ARE REFERENCED FROM SEAWARD WHEN ENTERING FROM UPPER NEW YORK BAY.

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

CHART 12369 NM 5/00

BRIDGEPORT AND BLACK ROCK HARBORS-CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF NOV 1999 AND SURVEYS TO AUG 1997

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)
BRIDGEPORT ENTRANCE CHANNEL	30.0	31.6	29.4	7,8-97	400	2.5	35
BRIDGEPORT REACH	25.2	26.7	24.9	7,8-97	400-600	0.9	35
PEQUONNOCK RIVER							
LOWER REACH	A10.9	13.9	10.9	11-92	69-300	0.5	18
UPPER REACH	B 8.9	C 8.0	D 8.0	11-92	69-125	0.4	18
JOHNSONS CREEK							
ENTRANCE CHANNEL	11.2	11.1	E 6.7	7-90	200-350	0.7	15
NEWFIELD REACH	9.0	8.5	6.6	7-90	100	0.2	9
YELLOW MILL CHANNEL							
LOWER REACH	11.3	15.2	10.6	7-90	200-100	0.3	18
MIDDLE REACH	13.7	16.1	14.4	7-90	200-100	0.3	18
UPPER REACH	F 12.1	G13.2	2.4	7-90	150	0.3	18
BLACK ROCK ENTRANCE CHANNEL	11.0	14.1	14.7	11-91	150	1.1	18
BLACK ROCK REACH	9.9	14.2	10.4	11-91	150	0.6	18
CEDAR CREEK CHANNEL	13.8	15.6	15.0	11-91	200-150	0.4	18
WEST BRANCH	14.8	15.1	15.0	11-91	100	0.3	18
EAST BRANCH	H 15.9	H 16.3	H 15.5	11-91	100	0.2	18

A. EXCEPT FOR SHOALING TO 3.6 FEET NEAR WEST CHANNEL LIMIT ABOUT 450-560 FEET UPSTREAM FROM THE ROUTE 95 HIGHWAY BRIDGE; AND SCATTERED SHOALING TO 4.2 FEET NEAR WEST CHANNEL LIMIT 350-450 FEET UPSTREAM OF CONGRESS STREET BRIDGE.

B. EXCEPT FOR SCATTERED SHOALING TO 3.3 FEET WITHIN 30 FEET OF WEST LIMIT NEAR UPSTREAM END OF THE PROJECT.

C. EXCEPT FOR SCATTERED SHOALING TO 2.8 FEET WITHIN 90 FEET OF WEST LIMIT ABOUT 300 FEET FROM THE PROJECT.

D. EXCEPT FOR SCATTERED SHOALING TO 2.2 FEET WITHIN 30 FEET OF EAST LIMIT ABOUT 300 FEET FROM THE END OF PROJECT.

E. EXCEPT FOR SHOALING TO 3.3 FEET 41°09'56.0"N, 73°10'02.3"W.

F. EXCEPT FOR SHOALING TO 0.1 FEET AT THE UPSTREAM END OF THE PROJECT.

G. EXCEPT FOR SHOALING TO 4.3 FEET AT THE UPSTREAM END OF THE PROJECT.

H. EXCEPT FOR SHOALING TO 5.6 FEET THE LAST 200 FEET OF THE CHANNEL.

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

CHART 18587 NM 5/00

COOS BAY AND ISTHMUS SLOUGH CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO OCT 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	39	9,10-99	—	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	38	37	36	9-99	300	0.8	37
JARVIS TURN	37	38	34	9-99	300	0.5	37
UPPER JARVIS RANGE	35	35	34	8,9-99	300	1.9	
NORTH BEND LOWER RANGE	37	38	37	8-99	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	35	38	34	5-99	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 SUBSEQUENT TO THE ABOVE INFORMATION

CHART 18754 NM 5/00

NEWPORT BAY CHANNEL DEPTHS

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

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	12.4	19.0	20.0	10.1	6,8-99	500	0.6	20
CORONA DEL MAR BEND	16.7	18.0	18.7	17.3	6,8-99	200-500	0.3	20
BALBOA REACH	14.7	14.7	14.7	13.7	6,8-99	200	0.5	20
HARBOR ISLAND REACH	13.7	14.1	14.4	14.1	6,8-99	200	0.7	20
LIDO ISLE REACH	12.1	13.7	14.1	14.1	6,8-99	200	0.8	20
TURNING BASIN	16.7	15.4	17.3	16.7	6,8-99	200-1000	0.3	20
BALBOA ISLAND, NORTH CHANNEL	6.8	7.5	7.8	5.5	6,8-99	200	0.9	10

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