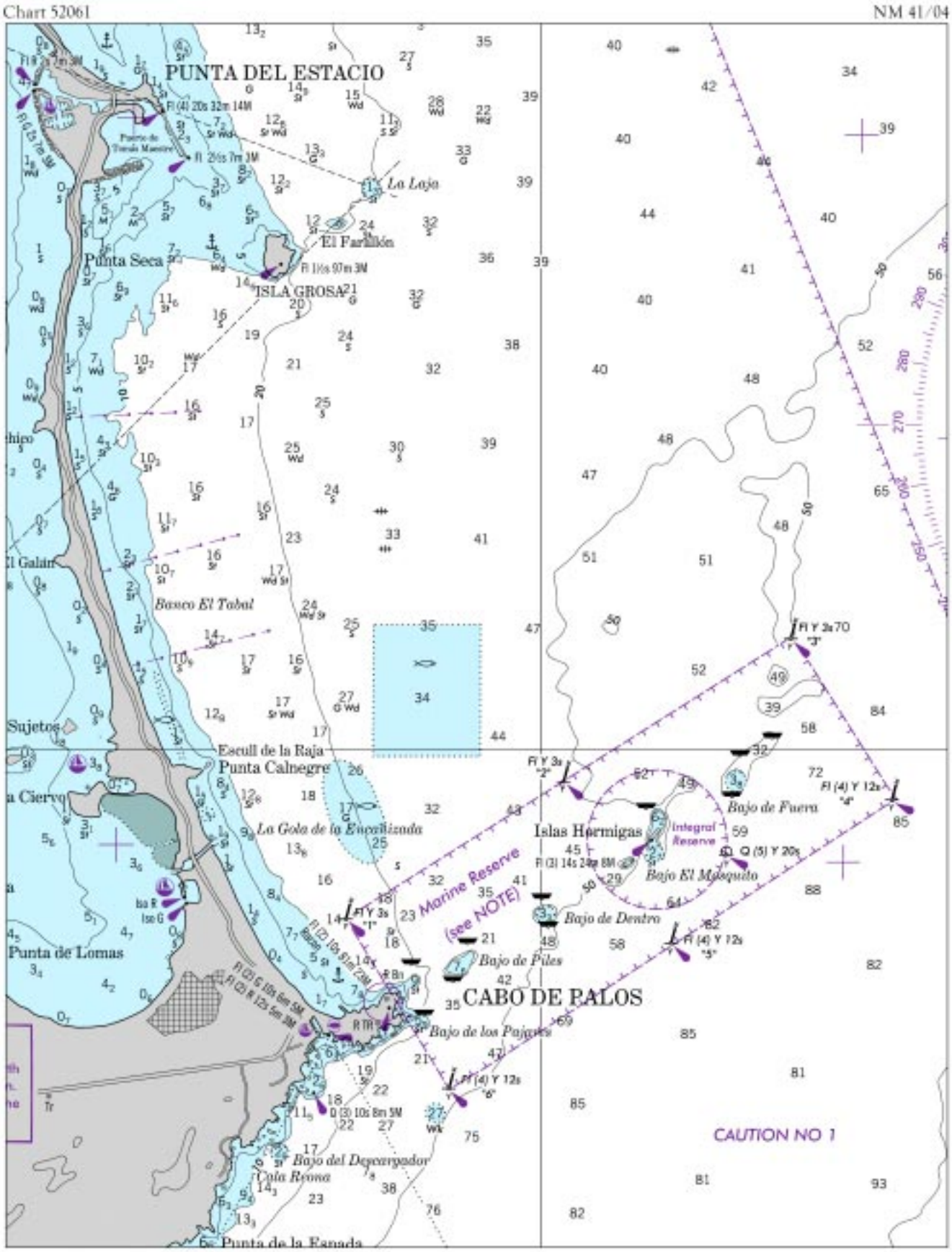
Chart 52061
NM 41/04
PUNTA DEL ESTACIO
La Lajo
El Farallón
Punta Seca
ISLA GROSA
Basco El Tabal
Sujetos
Escull de la Raja
Punta Calnegre
La Gola de la Encallizada
Islas Hormigas
Integral Reserve
Bajo de Fuera
Bajo El Mosquito
Bajo de Dentro
Bajo de Piles
Marine Reserve (see NOTE)
CABO DE PALOS
Bajo de los Pajaros
Punta de Lomas
Bajo del Descargador
Cala Reona
Punta de la Espada
CAUTION NO 1

Chart 11521 NM 41/04

CHARLESTON HARBOR ENTRANCE

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO AUG 2004

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)
FORT SUMTER RANGE	42.6	48.2	48.0	38.3	7,8-04	1000	14.8	A47
MOUNT PLEASANT RANGE	46.7	47.5	45.8	47.8	8-03	1000-600	1.6	A45

A. FOR WIDTH OF 1000 FEET, THE PROJECT DEPTH IS 42 FEET FOR OUTER 100 FEET.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11523 NM 41/04

CHARLESTON HARBOR ENTRANCE

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO AUG 2004

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)
FORT SUMTER RANGE	42.6	48.2	48.0	38.3	7,8-04	1000	14.8	A47
MOUNT PLEASANT RANGE	46.7	47.5	45.8	47.8	8-03	1000-600	1.6	A45
REBELLION REACH	47.4	48.8	47.8	48.1	8-03	600	1.4	45

A. FOR WIDTH OF 1000 FEET, THE PROJECT DEPTH IS 42 FEET FOR OUTER 100 FEET.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11524 NM 41/04

CHARLESTON HARBOR, COOPER RIVER AND SHIPYARD RIVER

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS- SURVEYS TO AUG 2004

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)
FORT SUMTER RANGE	42.6	48.2	48.0	38.3	7,8-04	1000	14.8	A47
MOUNT PLEASANT RANGE	46.7	47.5	45.8	47.8	8-03	1000-600	1.6	A45
REBELLION REACH	47.4	48.8	47.8	48.1	8-03	600	1.4	45
SHUTES-FOLLY REACH	48.2	48.1	48.4	48.9	9-03	600-800	1.3	45
HORSE REACH	48.6	49.5	49.1	46.0	9-03	800	0.5	45
CUSTOMHOUSE REACH	47.1	49.2	48.8	47.3	9-03	1385	0.2	45
SOUTH CHANNEL	24.4	24.8	24.5	B24.3	10-96;7-04	600-1000	3.1	45
HOG ISLAND REACH	46.5	46.9	45.2	42.6	9-03	600-1300	1.5	45
DRUM ISLAND REACH	41.0	44.9	47.3	34.1	4,5-02;3,5-04	600-1300	0.7	45
TOWN CREEK LOWER REACH	39.5	39.0	39.0	38.2	9-03	400-450	1.1	45
TURNING BASIN	36.5	34.3	34.2	33.4	5-02	250	0.25	35
TOWN CREEK UPPER REACH	35.2	40.2	C40.9	40.5	11-01;5-02	250	1.0	16
MYERS BEND	45.4	48.3	48.6	48.1	5-04	600-900	0.4	45
DANIEL ISLAND REACH	44.4	47.4	44.9	38.3	5-04	880-980	1.2	45
DANIEL ISLAND BEND	35.8	50.0	49.5	48.0	5,6-04	700-780	0.4	45
CLOUTER CREEK REACH	45.6	47.3	47.8	47.3	6-04	600	0.9	45
NAVY YARD REACH	46.9	48.0	48.1	46.1	6-04	600-700	1.1	45
NORTH CHARLESTON REACH	47.1	49.1	49.2	47.3	6-04	500-600	1.0	45
FILBIN CREEK REACH	46.2	49.0	49.3	44.7	6-04	500	0.6	45
PORT TERMINAL REACH	41.5	47.9	48.2	44.0	6-04	600	0.7	45
ORDNANCE REACH	48.7	50.1	48.6	49.5	6-04	600	0.3	45
ORDNANCE REACH TURNING BASIN	49.2	47.3	45.6	45.0	6-04	800	0.26	45
WANDO RIVER								
LOWER REACH	44.0	47.1	47.2	39.2	4,5-02;3-04	1500-400	1.3	45
UPPER REACH	41.2	41.2	43.5	42.3	3-04	400-850	0.74	45
TURNING BASIN	44.4	44.2	46.8	46.1	3-04	550	0.3	45
SHIPYARD CREEK								
MAIN CHANNEL	25.3	27.5	28.8	25.8	3-04	1200-300	1.0	30
LOWER TURNING BASIN	44.3	45.1	46.0	43.8	3-04	700	0.2	38
UPPER TURNING BASIN	18.8	21.2	23.0	21.6	3-04	600	0.15	30
COOPER RIVER								
RANGE A	38.2	37.4	38.3	37.9	7,8-98;7,10-03;6-04	400-1350	1.02	35
RANGE B	18.6	23.1	39.1	37.3	12-99;10-03	VARIES	0.74	35
RANGE C	20.6	D24.6	38.9	39.2	7,8-98;12-99;10,11,12-03	VARIES	0.76	35
RANGE D	38.9	38.4	38.2	38.0	2-00;11,12-03	VARIES	0.58	35
RANGE E	32.1	34.8	38.2	36.3	1-95	VARIES	0.38	35
RANGE F	25.0	36.6	35.2	33.9	1-95	VARIES	0.29	35

A. FOR WIDTH OF 1000 FEET, THE PROJECT DEPTH IS 42 FEET FOR OUTER 100 FEET.
B. ALONG CHANNEL EDGE.
C. OBSTRUCTION LOCATED WITH A DEPTH OF 39 FEET, AT 32°48'45.3"N; 79°55'45.7"W.
D. OBSTRUCTION LOCATED WITH A DEPTH OF 37 FEET, AT 32°55'15.9"N; 79°55'54.8"W.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 14815 NM 41/04

ROCHESTER HARBOR CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS JUN 2004

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT GREAT LAKES LOW WATER DATUM (LWD)					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (MILES)	DEPTH LWD (FEET)
ENTRANCE TO BEGINNING OF JETTIES	18.3	19.3	19.9	3-04	300	0.91	24
BEGINNING OF JETTIES TO END OF JETTIES	18.4	19.1	17.3	3-04	200	0.57	23
END OF JETTIES TO RR BRIDGE	9.6	17.4	17.6	6-04	200-400	0.27	23
TURNING BASIN	4.5	A7.3	7.9	6-04	140-25	0.04	23
RR BRIDGE TO 200 FT N OF BUOY "2" AT 43°14'04"N 077°37'02"W	10.9	B14.3	12.3	3-04	150-225	1.44	21
200 FT N OF BUOY "2" AT 43°14'04"N 077°37'02"W TO PT AT 43°13'50"N 077°36'57"W	17.7	12.7	10.6	6-04	150-525	0.30	21
PT AT 43°13'50"N 077°36'57"W TO END OF PROJECT	11.1	11.5	11.3	3-04, 6-04	150	0.51	21

A. SHOALING TO 6.4 FEET IN LEFT HALF OF QUARTER
B. SHOALING TO 11.8 FEET FROM 43°15'10.8"N 077°36'30.1"W TO 43°15'13.7"N 077°36'28.0"W
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 18523 NM 41/04

COLUMBIA RIVER CHANNEL DEPTHS
MILLER SANDS RANGE TO GULL ISLAND TURN AND CHANNEL
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF AUG 20, 2004

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	39	41	40	39	7-04	600	2.2	40
PILLAR ROCK LOWER RANGE	38	39	39	38	7-04	600	3.0	40
PILLAR ROCK UPPER RANGE	35	40	40	39	7-04	600	1.9	40
WELCH ISLAND REACH	43	42	41	36	7-04	600	3.2	40
SKAMOKAWA CHANNEL	22	42	39	37	7-04	600	3.3	40
STEAMBOAT REACH	48	48	43	40	7-04	600	1.4	40
PUGET ISLAND RANGE AND TURN	40	42	38	34	7-04	600	3.5	40
WAUNA RANGE	37	39	38	37	8-04	600	2.2	40
DRISCOLL RANGE	38	38	40	40	8-04	600	1.7	40
WESTPORT TURN AND RANGE	37	40	41	41	7-04	600	2.0	40
WESTPORT CHANNEL	37	39	39	38	7-04, 8-04	600	2.4	40
EUREKA LOWER CHANNEL	46	41	42	44	8-04	600	2.1	40
EUREKA UPPER CHANNEL	42	44	43	42	8-04	600	0.8	40
OAK POINT CHANNEL	44	45	43	43	8-04	600	2.4	40
GULL I TURN AND CHANNEL	45	50	40	35	8-04	600	2.2	40

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

Chart 18531 (Lower Panel) NM 41/04

COLUMBIA RIVER CHANNEL DEPTHS
TOMAHAWK BAR TO BONNEVILLE LOCKS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF AUG 20, 2004

CONTROLLING DEPTHS IN FEET AT COLUMBIA RIVER DATUM (CRD) * SEE FOOTNOTE					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (STAT. MILES)	DEPTH CRD (FEET)
TOMAHAWK BAR	18	18	17	11-03	300	3.7	27
AIRPORT BAR	18	18	18	3-04	300	2.8	27
GOVERNMENT ISLAND LOWER RANGE	16	17	17	3-04	300	1.1	27
GOVERNMENT ISLAND MIDDLE RANGE	14	18	16	3-04	300	1.6	27
FISHER QUARRY CHANNEL RANGE	26	24	21	3-04	300	1.0	27
GOVERNMENT ISLAND RANGE	25	30	25	3-04	300	1.1	27
GOVERNMENT ISLAND UPPER RANGE	17	18	21	3-04	300	0.8	27
LADY ISLAND RANGE	18	21	23	3-04	300	2.1	27
LADY ISLAND CHANNEL AND UPPER RANGE	28	28	19	3-04	300	0.9	27
WASHOUGAL LOWER RANGE	21	28	28	3-04	300	1.5	27
WASHOUGAL UPPER RANGE	19	26	30	3-04	300	1.1	27
GARY ISLAND RANGE	16	15	15	3-04	300	0.9	27
REED ISLAND RANGE	18	15	14	10-03, 3-04	300	2.2	27
TUNNEL POINT CHANNEL	24	25	26	10-03	300	0.8	27
ROOSTER ROCK CHANNEL	26	23	25	10-03	300	1.2	27
CAPE HORN CHANNEL	34	32	31	10-03	300	2.4	27
CANDIANA CHANNEL	16	38	36	10-03	300	1.0	27
FASHION REEF LOWER RANGE	12	19	21	10-03	300	2.2	27
MULTNOMAH FALLS BAR RANGE	13	23	16	10-03	300	1.3	27
MULTNOMAH FALLS TURN	12	20	21	10, 11-03	300	0.8	27
MULTNOMAH FALLS UPPER RANGE	18	21	24	11-03	300	3.2	27
MCGOWANS CHANNEL	39	34	25	11-03	300	1.1	27
WARRENDALE LOWER RANGE	20	22	23	11-03	300	0.9	27
WARRENDALE UPPER RANGE	21	28	22	11-03	300	0.8	27
HAMILTON ISLAND REACH	21	30	27	11-03	300	0.9	27
ENTRANCE TO BONNEVILLE LOCKS	22	22	22	3-00	300	0.6	27

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