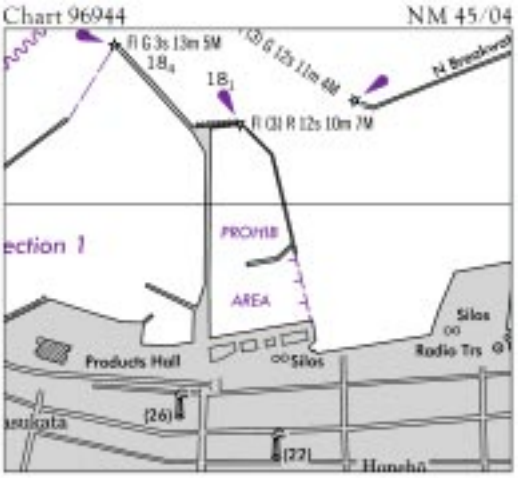
Chart 96944
NM 45/04
Fl G 3s 13m 5M
Fl (3) G 12s 11m 4M
N Breakwater
Fl (3) R 12s 10m 7M
PROHIB
AREA
Silos
Radio Trs
Products Hull
Silos
(26)
(22)

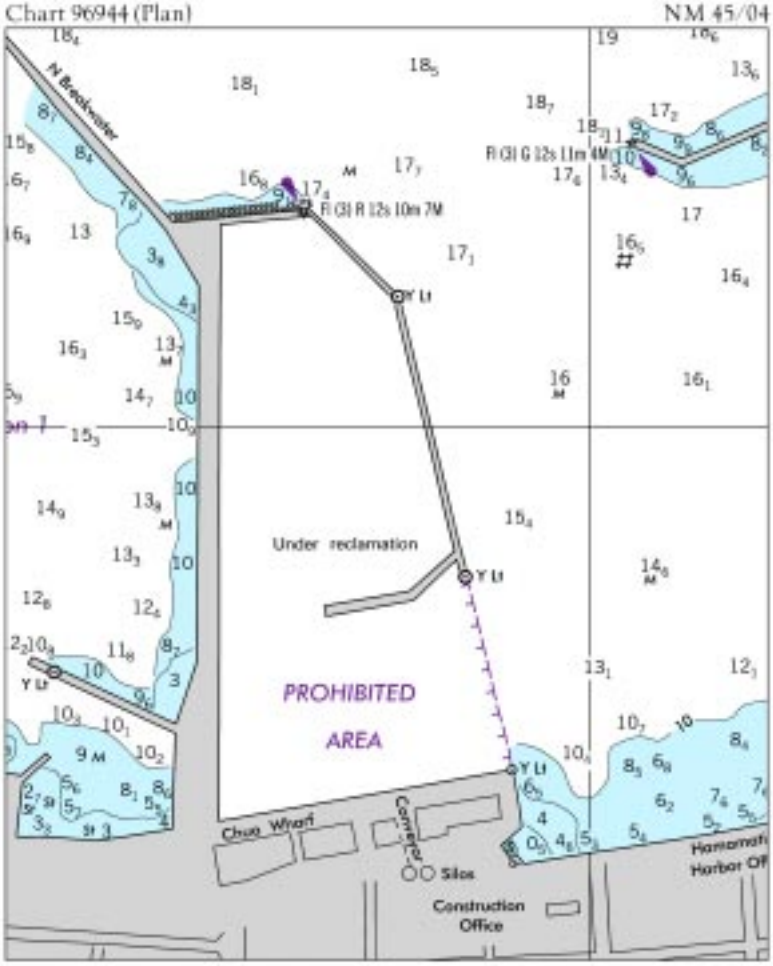
Chart 96944 (Plan)
NM 45/04
N Breakwater
Fl (3) G 12s 11m 4M
Fl (3) R 12s 10m 7M
Y Lt
Under reclamation
PROHIBITED
AREA
Chua Wharf
Silos
Construction
Office

Chart 18502 NM 45/04

GRAYS HARBOR

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

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)
BAR CHANNEL	46.7	46.4	45.0	5-03	1000	4.6	46
ENTRANCE CHANNEL	34.6	34.5	37.2	5,6-03; 3,5,6-04	900-600	1.8	42
PT CHEHALIS REACH	37.0	39.5	33.4	3,5,6-04	600	1.2	40
SOUTH REACH	34.3	37.0	36.1	3,10-03; 3,5,6-04	600-350	4.1	36
CROSSOVER CHANNEL	35.9	37.3	36.9	6,10,11-03; 1-04	350-450	2.5	36
NORTH CHANNEL	36.6	36.3	35.7	1-04	450-350	2.4	36
HOQUIAM REACH	37.1	36.1	36.9	1-04	350	1.9	36
COW POINT REACH	35.3	35.7	33.7	12-02; 1,2-03; 1-04	350-900	1.8	36
ABERDEEN REACH	27.8	29.8	28.6	10-01;2-02;2-03;1-04	550-200	2.6	30
TURNING BASIN	32.7	33.5	24.2	1-04	200-550	.3	30
THENCE TO COSMOPOLIS	26.5	26.9	27.7	1-02; 2-03	200	.8	30

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

Chart 18521 NM 45/04

COLUMBIA RIVER CHANNEL DEPTHS
ENTRANCE TO MILLER SANDS RANGE

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF SEP 13, 2004

* 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	51	51	43	9-04	2640	3.3	48
SAND ISLAND RANGE (CLATSOP SPIT)	49	50	50	46	9-04	2640	2.2	48
LOWER DESDEMONA SHOAL	43	45	43	43	8-04	600	3.4	40
UPPER DESDEMONA SHOAL	40	43	47	45	9-04	600	3.6	40
TANSY POINT TURN AND RANGE	40	42	42	38	8-04, 9-04	600	4.8	40
ASTORIA RANGE	40	42	43	41	9-04	600	2.7	40
TONGUE POINT CHANNEL	41	44	42	41	9-04	600	2.2	40
HARRINGTON POINT RANGE	41	41	44	39	7-04, 9-04	600	2.6	40
MILLER SANDS RANGE	39	41	40	39	7-04	600	2.2	40

* 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. PROJECT LENGTHS ARE IN STATUTE MILES.

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

Chart 18524 (Left Panel) NM 45/04

COLUMBIA RIVER CHANNEL DEPTHS
GULL ISLAND TURN AND CHANNEL TO SAINT HELENS TURN
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF SEP 13, 2004

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 I TURN AND CHANNEL	46	50	40	36	8-04	600	2.2	40
STELLA RANGE	39	40	38	37	8-04	600	2.8	40
FISHER I CHANNEL	39	40	38	39	8-04	600	0.9	40
WALKER I CHANNEL	37	42	43	37	8-04	600	1.5	40
BARLOW PT. CHANNEL	42	45	39	39	8-04	600	1.3	40
SLAUGHTERS CHANNEL	39	40	39	40	8-04	600	2.3	40
SLAUGHTERS TURN AND CHANNEL OPPOSITE THE TURNING BASIN	38	40	39	38	8-04	600	1.7	40
COTTONWOOD ISLAND LOWER RANGE	41	40	39	38	8-04	600	1.7	40
COTTONWOOD ISLAND TURN	43	42	38	39	8-04	600	2.7	40
COTTONWOOD ISLAND UPPER RANGE	42	42	42	40	8-04	600	1.6	40
KALAMA LOWER RANGE	43	36	39	32	8-04	600	1.8	40
KALAMA UPPER RANGE	39	42	39	40	8-04, 9-04	600	2.2	40
BYBEE LEDGE CHANNEL	39	42	43	39	9-04	600	2.1	40
MARTIN ISLAND CHANNEL	41	38	38	38	8-04, 9-04	600	2.1	40
MARTIN ISLAND RANGE	39	42	42	41	8-04	600	1.4	40
COLUMBIA CITY CHANNEL	38	40	38	38	8-04	600	1.2	40
ST. HELENS RANGE	39	39	41	38	8-04	600	2.0	40
ST. HELENS TURN	42	43	41	36	8-04	600	1.7	40

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

Chart 18525 NM 45/04

COLUMBIA RIVER CHANNEL DEPTHS
SAINT HELENS TURN TO TOMAHAWK BAR
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORTS OF SEP 13, 2004

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	42	43	41	36	8-04	600	1.7	40
WARRIOR ROCK RANGE	39	40	39	38	8-04	600	1.3	40
DUCK CLUB TURN	37	37	42	42	8-04	600	1.4	40
HENRICI RANGE	41	39	41	39	9-04	600	2.6	40
FALES CHANNEL	44	41	41	38	9-04	600	1.1	40
KNAPP POINT CHANNEL	39	41	40	38	8-04	600	1.8	40
WILLOW LOWER RANGE	39	41	41	38	8-04	600	2.1	40
WILLOW UPPER RANGE	40	43	40	45	9-04	600	1.1	40
MORGAN BAR	43	46	49	47	9-04	600	1.0	40
MORGAN CHANNEL	46	45	42	42	9-04	600	1.5	40
VANCOUVER LOWER CHANNEL	46	47	49	47	8-04	500	1.0	40
VANCOUVER RANGE	40	42	42	41	8-04	500	1.3	40
VANCOUVER UPPER CHANNEL	41	42	38	39	8-04	500	0.9	40
VANCOUVER LOWER TURNING BASIN	36	38	41	40	8-04	800	1.0	40
VANCOUVER UPPER TURNING BASIN	32	30	27	27	8-04	800	0.9	35
TOMAHAWK BAR	18	18	18	17	11-03	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 45/04

COLUMBIA RIVER CHANNEL DEPTHS
MORGAN CHANNEL TO TOMAHAWK BAR

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF SEP 13, 2004

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)
MORGAN CHANNEL	46	45	42	42	9-04	600	1.5	40
VANCOUVER LOWER CHANNEL	46	47	49	47	8-04	500	1.0	40
VANCOUVER RANGE	40	42	42	41	8-04	500	1.3	40
VANCOUVER UPPER CHANNEL	41	42	38	39	8-04	500	0.9	40
VANCOUVER LOWER TURNING BASIN	36	38	41	40	8-04	800	1.0	40
VANCOUVER UPPER TURNING BASIN	32	30	27	27	8-04	800	0.9	35
TOMAHAWK BAR	18	18	18	17	11-03	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 18531 (Lower Panel) NM 45/04

COLUMBIA RIVER CHANNEL DEPTHS
TOMAHAWK BAR TO BONNEVILLE LOCKS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF SEP 13, 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