

SECTION I

NM 13/04

Chart 11353

NM 13/04

MISSISSIPPI RIVER - GULF OUTLET CHANNEL					
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO JAN 2004					
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	WIDTH (FEET)	DATE OF SURVEY
LT. BUOY 1 (29°25'27"N, 88°59'31"W)					
TO LT. BUOY 20	35.0	38.0	29.0	600	7-03;1-04
THENCE TO END OF JETTY OPPOSITE LIGHT 62	28.0	34.0	26.0	500	6,7,8,10-03
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGING CONDITIONS SUBSEQUENT TO THE ABOVE					

Chart 11363

NM 13/04

MISSISSIPPI RIVER - GULF OUTLET CHANNEL					
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO JAN 2004					
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	WIDTH (FEET)	DATE OF SURVEY
LT. BUOY 1 (29°25'27"N, 88°59'31"W)					
TO LT. BUOY 20	35.0	38.0	29.0	600	7-03;1-04
THENCE TO END OF JETTY OPPOSITE LIGHT 62	28.0	34.0	26.0	500	6,7,8,10-03
THENCE TO INTERSECTION WITH G. I. W. W.	26.0	31.0	21.0	500	6,9-03;1-04
THENCE TO INNER HARBOR NAVIGATION CANAL	26.0	28.0	29.0	500	8-03;1-04
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGING CONDITIONS SUBSEQUENT TO THE ABOVE					

Chart 11364

NM 13/04

MISSISSIPPI RIVER - GULF OUTLET CHANNEL					
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO JAN 2004					
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	WIDTH (FEET)	DATE OF SURVEY
LT. BUOY 1 (29°25'27"N, 88°59'31"W)					
TO LT. BUOY 20	35.0	38.0	29.0	600	7-03;1-04
THENCE TO END OF JETTY OPPOSITE LIGHT 62	28.0	34.0	26.0	500	6,7,8,10-03
THENCE TO INTERSECTION WITH G. I. W. W.	26.0	31.0	21.0	500	6,9-03;1-04
THENCE TO INNER HARBOR NAVIGATION CANAL	26.0	28.0	29.0	500	8-03;1-04
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGING CONDITIONS SUBSEQUENT TO THE ABOVE					

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Chart 11369

NM 13/04

MISSISSIPPI RIVER - GULF OUTLET CHANNEL					
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO JAN 2004					
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	WIDTH (FEET)	DATE OF SURVEY
LT. BUOY 1 (29°25'27"N, 88°59'31"W)					
TO LT. BUOY 20	35.0	38.0	29.0	600	7-03;1-04
THENCE TO END OF JETTY					
OPPOSITE LIGHT 62	28.0	34.0	26.0	500	6,7,8,10-03
THENCE TO INTERSECTION WITH					
G. I. W. W.	26.0	31.0	21.0	500	6,9-03;1-04
THENCE TO INNER HARBOR					
NAVIGATION CANAL	26.0	28.0	29.0	500	8-03;1-04
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGING CONDITIONS SUBSEQUENT TO THE ABOVE					

Chart 11478

NM 13/04

PORT CANAVERAL CHANNEL DEPTHS								
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF OCT 2003 AND SURVEYS TO SEP 2003								
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)
OUTER REACH	43.3	43.9	43.5	42.9	8-03	400	5.5	44
MIDDLE REACH	40.0	43.7	39.8	33.9	9-03	400	0.9	44
INNER REACH	37.8	41.6	40.9	37.8	4-03	400	0.8	40
WEST ACCESS CHANNEL (EAST PORTION)	37.8	40.6	41.0	39.1	4-03	400	0.3	39
WEST ACCESS CHANNEL (WEST PORTION)	30.5	34.4	35.1	34.6	4-03	400	0.3	31
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION								

Chart 11481

NM 13/04

PORT CANAVERAL CHANNEL DEPTHS								
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF OCT 2003 AND SURVEYS TO SEP 2003								
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)
OUTER REACH	43.3	43.9	43.5	42.9	8-03	400	5.5	44
MIDDLE REACH	40.0	43.7	39.8	33.9	9-03	400	0.9	44
INNER REACH	37.8	41.6	40.9	37.8	4-03	400	0.8	40
WEST ACCESS CHANNEL (EAST PORTION)	37.8	40.6	41.0	39.1	4-03	400	0.3	39
WEST ACCESS CHANNEL (WEST PORTION)	30.5	34.4	35.1	34.6	4-03	400	0.3	31
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION								

SECTION I

NM 13/04

Chart 12222

NM 13/04

NORFOLK HARBOR AND APPROACHES								
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO JUL 2003								
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)
THIMBLE SHOAL CHANNEL (A)								
NORTH ELEMENT (B)	47.6	46.5	45.6	44.1	6,7,9-00	350	13.0	55
SOUTH ELEMENT (C)	49.7	50.0	49.7	50.3	6,7,9-00	650	13.0	55
NORTH AUXILIARY CHANNEL (D)						450		32
SOUTH AUXILIARY CHANNEL (D)						450		32
NORFOLK HARBOR								
ENTRANCE REACH	50.3	51.5	52.9	52.0	4-99	1000	1.4	50
NORFOLK HARBOR REACH	50.8	50.9	46.1	45.4	2-03	1250-800	3.8	55
CRANEY ISLAND REACH	48.1	51.2	50.8	46.2	2-03	800	2.1	55
LAMBERTS BEND	39.4	45.5	40.2	39.8	7-03	750	0.3	45
PORT NORFOLK REACH	39.0	40.1	40.6	38.4	7-03	750	2.0	45
NEWPORT NEWS CHANNEL	48.7	50.7	50.7	50.4	2-03	800	4.2	55
CAPE HENRY CHANNEL	47.4	52.3	52.5	49.3	1,12-02	1000	4.0	50
YORK SPIT CHANNEL	45.1	49.4	49.5	47.2	11-89;2-00;9,11-02	1000(E)	18.4	50
A. THIS CHANNEL IS RESTRICTED TO EXCLUDE VESSELS AND TOWS DRAWING LESS THAN 25 FEET. B. PORTION OF PROJECT MAINTAINED TO 45 FEET C. PORTION OF PROJECT MAINTAINED TO 50 FEET D. PROJECT MAINTENANCE DISCONTINUED E. CHANNEL WIDTH MAINTAINED TO 800 FEET NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION								

Chart 12253

NM 13/04

ELIZABETH RIVER CHANNEL DEPTHS								
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO JUL 2003								
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)
CRANEY ISLAND REACH	48.1	51.2	50.8	46.2	2-03	800	2.1	55
LAMBERTS BEND	39.4	45.5	40.2	39.8	7-03	750	0.3	45
PORT NORFOLK REACH	39.0	40.1	40.6	38.4	7-03	750	2.0	45
TOWN POINT REACH	38.7	39.8	39.8	39.4	7-03	750	0.6	45
SOUTHERN BRANCH:								
LOWER REACH	37.2	39.7	40.0	39.3	7-03	450-800	1.7	45
MIDDLE REACH	37.7	40.5	41.0	37.2	7-03	375	0.9	45
UPPER REACH	33.1	34.8	35.4	31.1	3-02	250-500	2.7	35
TURNING BASIN	34.7	35.7	35.0	33.4	3-02	600	0.1	35
THENCE TO A POINT 100 YARDS SOUTH OF LIGHT "30"	27.1	29.8	30.5	28.8	3-02	250	1.1	35
TURNING BASIN AT MAINS CREEK	28.4	30.4	29.0	28.3	3-02	800	0.2	35
THENCE TO A POINT 100 YARDS NORTH OF N & P B L RR BRIDGE	25.5	29.8	29.2	26.7	3-02	250	0.2	35
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION								

SECTION I

NM 13/04

Chart 18521

NM 13/04

COLUMBIA RIVER CHANNEL DEPTHS ENTRANCE TO MILLER SANDS RANGE								
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF DECEMBER 31, 2003								
* 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	58	57	55	43	10-03	2640	3.3	48
SAND ISLAND RANGE (CLATSOP SPIT)	49	52	53	44	10-03	2640	2.2	48
LOWER DESDEMONA SHOAL	45	46	42	38	12-03	600	3.4	40
UPPER DESDEMONA SHOAL	42	43	47	45	12-03	600	3.6	40
TANSY POINT TURN AND RANGE	40	41	40	37	12-03	600	4.8	40
ASTORIA RANGE	42	42	43	41	12-03	600	2.7	40
TONGUE POINT CHANNEL	40	42	42	41	12-03	600	2.2	40
HARRINGTON POINT RANGE	39	41	41	37	11,12-03	600	2.6	40
MILLER SANDS RANGE	41	43	41	36	11-03	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 18523

NM 13/04

COLUMBIA RIVER CHANNEL DEPTHS MILLER SANDS RANGE TO GULL ISLAND TURN AND CHANNEL								
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF DECEMBER 31, 2003								
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	41	43	41	36	11-03	600	2.2	40
PILLAR ROCK LOWER RANGE	37	40	41	37	11-03	600	3.0	40
PILLAR ROCK UPPER RANGE	36	42	40	40	11,12-03	600	1.9	40
WELCH ISLAND REACH	40	43	44	38	12-03	600	3.2	40
SKAMOKAWA CHANNEL	29	41	43	37	12-03	600	3.3	40
STEAMBOAT REACH	47	48	45	43	12-03	600	1.4	40
PUGET ISLAND RANGE AND TURN	41	42	42	37	12-03	600	3.5	40
WAUNA RANGE	37	39	42	41	12-03	600	2.2	40
DRISCOLL RANGE	37	39	40	40	12-03	600	1.7	40
WESTPORT TURN AND RANGE	37	42	42	43	11-03	600	2.0	40
WESTPORT CHANNEL	40	43	42	42	8,11-03	600	2.4	40
EUREKA LOWER CHANNEL	42	43	43	43	8-03	600	2.1	40
EUREKA UPPER CHANNEL	42	42	42	41	8-03	600	0.8	40
OAK POINT CHANNEL	45	46	44	43	12-03	600	2.4	40
GULL I TURN AND CHANNEL	46	44	40	33	12-03	600	2.2	40
* CONTROLLING DEPTHS ROUNDED TO THE NEAREST FOOT								
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES TO THE ABOVE INFORMATION								

SECTION I

NM 13/04

Chart 18524 (Left Panel)

NM 13/04

COLUMBIA RIVER CHANNEL DEPTHS GULL ISLAND TURN AND CHANNEL TO SAINT HELENS TURN TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF DECEMBER 31, 2003								
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	44	40	33	12-03	600	2.2	40
STELLA RANGE	38	42	41	39	12-03	600	2.8	40
FISHER I CHANNEL	39	41	42	38	12-03	600	0.9	40
WALKER I CHANNEL	37	41	41	36	12-03	600	1.5	40
BARLOW PT. CHANNEL	45	44	41	39	12-03	600	1.3	40
SLAUGHTERS CHANNEL	37	41	38	36	11-03	600	2.3	40
SLAUGHTERS TURN AND CHANNEL OPPOSITE THE TURNING BASIN	39	39	39	40	11-03	600	1.7	40
COTTONWOOD ISLAND LOWER RANGE	41	43	42	43	12-03	600	1.7	40
COTTONWOOD ISLAND TURN	43	42	38	38	12-03	600	2.7	40
COTTONWOOD ISLAND UPPER RANGE	42	42	41	41	12-03	600	1.6	40
KALAMA LOWER RANGE	42	40	39	35	12-03	600	1.8	40
KALAMA UPPER RANGE	40	42	39	39	12-03	600	2.2	40
BYBEE LEDGE CHANNEL	41	41	41	39	12-03	600	2.1	40
MARTIN ISLAND CHANNEL	40	40	39	39	12-03	600	2.1	40
MARTIN ISLAND RANGE	41	41	42	40	12-03	600	1.4	40
COLUMBIA CITY CHANNEL	40	40	40	40	12-03	600	1.2	40
ST. HELENS RANGE	39	41	41	40	11-03	600	2.0	40
ST. HELENS TURN	41	42	43	42	11-03	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 13/04

COLUMBIA RIVER CHANNEL DEPTHS SAINT HELENS TURN TO TOMAHAWK BAR TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORTS OF DECEMBER 31, 2003								
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	41	42	43	42	11-03	600	1.7	40
WARRIOR ROCK RANGE	40	42	42	40	10-03	600	1.3	40
DUCK CLUB TURN	37	42	43	40	10-03	600	1.4	40
HENRICI RANGE	40	41	37	39	11-03	600	2.6	40
FALES CHANNEL	43	43	42	39	11-03	600	1.1	40
KNAPP POINT CHANNEL	39	41	41	38	11-03	600	1.8	40
WILLOW LOWER RANGE	40	41	42	39	11-03	600	2.1	40
WILLOW UPPER RANGE	41	43	40	45	11-03	600	1.1	40
MORGAN TURN	43	45	49	47	11-03	600	1.0	40
MORGAN CHANNEL	46	44	42	41	11-03	600	1.5	40
VANCOUVER LOWER CHANNEL	46	47	48	51	11-03	500	1.0	40
VANCOUVER RANGE	40	42	42	41	11-03	500	1.3	40
VANCOUVER UPPER CHANNEL	42	42	41	38	11-03	500	0.9	40
VANCOUVER LOWER TURNING BASIN	36	38	41	31	11-03	800	1.0	40
VANCOUVER UPPER TURNING BASIN	32	26	26	23	11-03	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

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NM 13/04

Chart 18526

NM 13/04

COLUMBIA RIVER CHANNEL DEPTHS MORGAN CHANNEL TO TOMAHAWK BAR TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF DECEMBER 31, 2003								
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	44	42	41	11-03	600	1.5	40
VANCOUVER LOWER CHANNEL	46	47	48	51	11-03	500	1.0	40
VANCOUVER RANGE	40	42	42	41	11-03	500	1.3	40
VANCOUVER UPPER CHANNEL	42	42	41	38	11-03	500	0.9	40
VANCOUVER LOWER TURNING BASIN	36	38	41	31	11-03	800	1.0	40
VANCOUVER UPPER TURNING BASIN	32	26	26	23	11-03	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 13/04

COLUMBIA RIVER CHANNEL DEPTHS TOMAHAWK BAR TO BONNEVILLE LOCKS TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF DECEMBER 31, 2003								
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	17	18	17	10-03	300	2.8	27	
GOVERNMENT ISLAND LOWER RANGE	14	17	16	10-03	300	1.1	27	
GOVERNMENT ISLAND MIDDLE RANGE	15	16	16	10-03	300	1.6	27	
FISHER QUARRY CHANNEL RANGE	29	26	21	10-03	300	1.0	27	
GOVERNMENT ISLAND RANGE	25	29	26	10-03	300	1.1	27	
GOVERNMENT ISLAND UPPER RANGE	17	18	23	10-03	300	0.8	27	
LADY ISLAND RANGE	19	21	24	10-03	300	2.1	27	
LADY ISLAND CHANNEL AND UPPER RANGE	28	30	20	10-03	300	0.9	27	
WASHOUGAL LOWER RANGE	22	28	30	10-03	300	1.5	27	
WASHOUGAL UPPER RANGE	18	29	29	10-03	300	1.1	27	
GARY ISLAND RANGE	17	17	17	10-03	300	0.9	27	
REED ISLAND RANGE	17	17	15	10-03	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

SECTION I

NM 13/04

Chart 18584

NM 13/04

UMPQUA RIVER CHANNEL DEPTHS							
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF OCT 2002 AND SURVEYS TO OCT 2003							
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	17	18	9-02; 9, 10-03	200	7.0	26-22
LT. 21 TO REEDSPORT	17	19	17	5-02; 9, 10-02	200	2.7	22
REEDSPORT TURNING BASIN	25	24	24	5-02; 10-02	600	0.2	22
LT. 21 TO GARDINER	12	13	11	10-01	200	1.15	22
GARDINER TURNING BASIN	5	2	2	10-01	500	0.2	22

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