CHART 62355 NM 4/00

DAYMANIYAT ISLANDS

NATURE RESERVE

In the area shown, fishing (other than by local vessels), anchoring, diving and approaching within 200 meters of any island, are strictly prohibited without a permit from the Oman Ministry of Regional Municipalities and Environment.

CHART 62360 NM 4/00

DAYMANIYAT ISLANDS

NATURE RESERVE

In the area shown, fishing (other than by local vessels), anchoring, diving and approaching within 200 meters of any island, are strictly prohibited without a permit from the Oman Ministry of Regional Municipalities and Environment.

CHART 62361 NM N4/00

DAYMANIYAT ISLANDS

NATURE RESERVE

In the area shown, fishing (other than by local vessels), anchoring, diving and approaching within 200 meters of any island, are strictly prohibited without a permit from the Oman Ministry of Regional Municipalities and Environment.

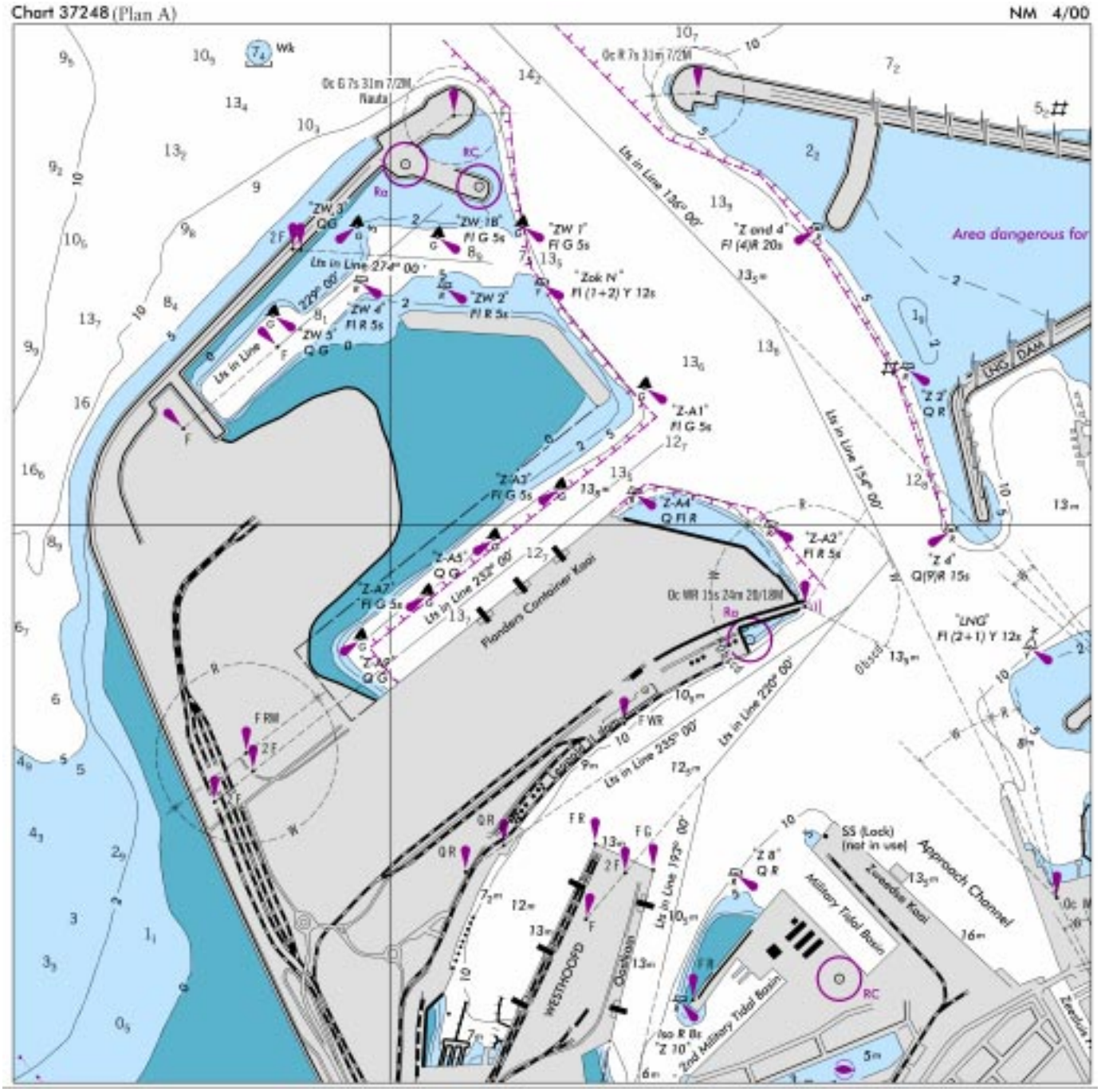
Chart 37248 (Plan A)
NM 4/00
Area dangerous for
Flanders Container Kaai
Approach Channel
Military Tidal Basin
2nd Military Tidal Basin
WESTHOOFD
Oostkom
Zweedse Kaai
LNG DAM
SS (Lock) (not in use)
Lts in Line 274° 00'
Lts in Line 136° 00'
Lts in Line 154° 00'
Lts in Line 232° 00'
Lts in Line 235° 00'
Lts in Line 220° 00'
Lts in Line 193° 00'
Oc G 7s 31m 7/2M Nauta
Oc R 7s 31m 7/2M
Oc WR 15s 24m 20/18M
"ZW 3" Q G
"ZW 1B" Fl G 5s
"ZW 1" Fl G 5s
"Z and 4" Fl (4)R 20s
"Zok N" Fl (1+2) Y 12s
"ZW 2" Fl R 5s
"ZW 4" Fl R 5s
"ZW 5" Q G
"Z-A1" Fl G 5s
"Z-A3" Fl G 5s
"Z-A4" Q Fl R
"Z-A2" Fl R 5s
"Z-A5" Q G
"Z-A7" Fl G 5s
"Z-A9" Q G
"Z 2" Q R
"Z 4" Q(9)R 15s
"LNG" Fl (2+1) Y 12s
"Z 8" Q R
"Z 10" Iso R 8s
RC
Ra
Wk

CHART 18502 NM 4/00

GRAYS HARBOR

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF OCT 1999 AND SURVEYS TO AUG 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)
BAR CHANNEL	47.5	48.0	46.9	6-95;9-96	1000	4.6	46
ENTRANCE RANGE	34.5	37.7	33.7	3-96;6-98;6-99	900-600	1.8	42
PT CHEHALIS REACH	36.1	38.0	38.6	6-99	600	1.2	40
SOUTH REACH	34.0	37.4	31.9	1-97;6-99	600-350	4.1	36
CROSSOVER CHANNEL	34.4	36.7	33.5	5,6-99	350-450	2.5	36
NORTH CHANNEL	36.6	37.5	35.6	4,5-99	450-350	2.4	36
HOQUIAM REACH	37.3	34.0	28.5	8-99	350	1.9	36
COW POINT REACH	36.0	37.1	34.7	7,8-99	350-900	1.8	36
ABERDEEN REACH	22.1	28.1	25.0	5-97;4-98;6-99	550-200	2.6	30
TURNING BASIN	32.4	31.6	26.2	5-97;6-99	200-550	.3	30
THENCE TO COSMOPOLIS	26.9	27.6	27.8	5-97;6-99	200	.8	30

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

CHART 18524 (SIDE A) NM 4/00

COLUMBIA RIVER CHANNEL DEPTHS
GULL ISLAND TURN AND CHANNEL TO SAINT HELENS TURN

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO NOV 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)
GULL I TURN AND CHANNEL	39	44	42	35	8,11-99	600	2.2	40
STELLA RANGE	39	41	40	38	11-99	600	2.8	40
FISHER I CHANNEL	38	42	42	40	11-99	600	0.9	40
WALKER I CHANNEL	38	43	40	40	11-99	600	1.5	40
BARLOW PT. CHANNEL	45	42	40	41	11-99	600	1.3	40
SLAUGHTERS CHANNEL	39	40	39	40	11-99	600	2.5	40
SLAUGHTERS TURN AND CHANNEL OPPOSITE THE TURNING BASIN	38	41	40	38	11-99	600	1.7	40
COTTONWOOD ISLAND LOWER RANGE	36	39	40	41	10-99	600	1.7	40
COTTONWOOD ISLAND TURN	40	40	40	38	10-99	600	2.7	40
COTTONWOOD ISLAND UPPER RANGE AND TURN	40	41	39	44	10,11-99	600	1.6	40
KALAMA LOWER RANGE	41	42	41	37	11-99	600	1.8	40
KALAMA UPPER RANGE	36	39	40	40	11-99	600	2.2	40
BYBEE LEDGE CHANNEL	38	42	42	39	11-99	600	2.1	40
MARTIN ISLAND CHANNEL	39	42	40	38	11-99	600	2.1	40
MARTIN ISLAND RANGE	39	41	39	39	11-99	600	1.4	40
COLUMBIA CITY CHANNEL	42	39	40	38	11-99	600	1.2	40
ST. HELENS RANGE	40	42	42	43	10-99	600	2.0	40
ST. HELENS TURN	45	44	43	40	10-99	600	1.7	40

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

CHART 18524 (SIDE B) NM 4/00

COLUMBIA RIVER CHANNEL DEPTHS
SAINT HELENS TURN TO TOMAHAWK BAR

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO OCT 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)
ST. HELENS TURN	45	44	43	40	10-99	600	1.7	40
WARRIOR ROCK RANGE	39	41	40	39	10-99	600	1.3	40
DUCK CLUB TURN	35	38	39	42	10-99	600	1.4	40
HENRICI RANGE	37	39	39	38	10-99	600	2.6	40
FALES CHANNEL	43	41	40	36	10-99	600	1.1	40
KNAPP POINT CHANNEL	40	40	39	37	10-99	600	1.8	40
WILLOW LOWER RANGE	39	40	39	37	10-99	600	2.1	40
WILLOW UPPER RANGE	39	42	43	44	10-99	600	1.1	40
MORGAN TURN	41	45	46	48	10-99	600	1.0	40
MORGAN CHANNEL	45	46	42	43	10-99	600	1.5	40
VANCOUVER LOWER CHANNEL	49	49	55	45	10-99	500	1.0	40
VANCOUVER RANGE	41	42	40	40	10-99	500	1.3	40
VANCOUVER UPPER CHANNEL	39	42	41	39	10-99	500	0.9	40
VANCOUVER LOWER TURNING BASIN	27	35	37	40	10-99	800	1.0	40
VANCOUVER UPPER TURNING BASIN	27	24	22	24	10-99	800	0.9	35
TOMAHAWK BAR	18	18	19	18	10-99	300	3.7	27

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

CHART 18526 NM 4/00

COLUMBIA RIVER CHANNEL DEPTHS
MORGAN CHANNEL TO TOMAHAWK BAR

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO OCT 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	45	46	42	43	10-99	600	1.5	40
VANCOUVER LOWER CHANNEL	49	49	55	45	10-99	500	1.0	40
VANCOUVER RANGE	41	42	40	40	10-99	500	1.3	40
VANCOUVER UPPER CHANNEL	39	42	41	39	10-99	500	0.9	40
VANCOUVER LOWER TURNING BASIN	27	35	37	40	10-99	800	1.0	40
VANCOUVER UPPER TURNING BASIN	27	24	22	24	10-99	800	0.9	35
TOMAHAWK BAR	18	18	19	18	10-99	300	3.7	27

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

CHART 18531 (SIDE A) NM 4/00

COLUMBIA RIVER CHANNEL DEPTHS
TOMAHAWK BAR TO BONNEVILLE LOCKS

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

* SEE FOOTNOTE					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH * (MILES)	DEPTH * (FEET)
TOMAHAWK BAR	18	18	18	10-99	300	3.7	27
AIRPORT BAR	18	17	17	2-99	300	2.8	27
GOVERNMENT ISLAND LOWER RANGE	14	14	16	2-99	300	1.1	27
GOVERNMENT ISLAND MIDDLE RANGE	14	15	16	2-99	300	1.6	27
FISHER QUARRY CHANNEL RANGE	28	25	24	2-99	300	1.0	27
GOVERNMENT ISLAND RANGE	18	19	23	2,10-99	300	1.1	27
GOVERNMENT ISLAND UPPER RANGE	15	20	18	10-99	300	0.8	27
LADY ISLAND RANGE	19	20	22	10-99	300	2.1	27
LADY ISLAND CHANNEL AND UPPER RANGE	26	27	19	9-98; 2,10-99	300	0.9	27
WASHOUGAL LOWER RANGE	25	26	28	9-98; 2-99	300	1.5	27
WASHOUGAL UPPER RANGE	22	25	32	9-98; 2-99	300	1.1	27
GARY ISLAND CHANNEL	17	14	15	9-98; 2-99	300	0.9	27
REED ISLAND RANGE	16	16	15	11-94; 3-99	300	2.2	27
TUNNEL POINT CHANNEL	24	24	26	3-98; 3-99	300	0.8	27
ROOSTER ROCK CHANNEL	24	23	23	3-98; 3-99	300	1.2	27
CAPE HORN CHANNEL	29	30	28	3-98; 2-99	300	2.4	27
CANDIANA CHANNEL	35	28	25	3-98; 2-99	300	1.0	27
FASHION REEF LOWER RANGE	19	20	22	10-98; 2-99	300	2.2	27
MULTNOMAH FALLS BAR RANGE	19	21	25	10-98; 2-99	300	1.3	27
MULTNOMAH FALLS TURN	14	16	20	4-98; 2-99	300	0.8	27
MULTNOMAH FALLS UPPER RANGE	17	19	23	4-98; 2-99	300	3.2	27
MCGOWANS CHANNEL	36	28	26	4-98	300	1.1	27
WARRENDALE LOWER RANGE	16	21	23	4-98	300	0.9	27
WARRENDALE UPPER RANGE	17	26	21	4,10-98	300	0.8	27
HAMILTON ISLAND REACH	24	28	17	10-98	300	0.9	27
ENTRANCE TO BONNEVILLE LOCKS	22	22	24	3-98	300	0.6	27

* CONTROLLING DEPTHS FROM SEAWARD IN FEET AT COLUMBIA RIVER DATUM AND MAINTAINED TO 15 FEET. PROJECT LENGTHS ARE IN STATUTE MILES.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CHART 18581 NM 4/00

YAQUINA BAY AND RIVER 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)
CHANNEL ENTRANCE 44°36'23"N, 124°05'24"W TO FIRST TURN	24	29	30	10-99	400-300	1.3	40-30
THENCE TO TURNING BASIN	24	29	26	6-99	300-400	1.3	30
TURNING BASIN	16	22	23	6-99	300-1200	0.3	30
THENCE TO YAQUINA	15	12	12	7-98	200	1.6	18
THENCE TO END OF PROJECT	02A	07	05B	7-98	150	9.7	10

A. SHOAL TO BARE AT 44°36'57.7"N, 123°56'34.2"W.
B. SHOAL TO BARE AT 44°36'42.0"N, 123°56'55.5"W.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION