SOURCE

A	1990-2010	NOS Surveys	full bottom coverage
B3	1940-1969	NOS Surveys	partial bottom coverage
B4	1900-1939	NOS Surveys	partial bottom coverage

SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

LOCAL MAGNETIC DISTURBANCE (see note)

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 7 for important supplemental information.

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

CAUTION
SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:

Pipeline Area — Cable Area

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

Covered wells may be marked by lighted or unlighted buoys.

THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES - WEST COAST

OREGON - WASHINGTON

COLUMBIA RIVER

HARRINGTON POINT TO CRIMS ISLAND

Mercator Projection
Scale 1:40,000 at Lat. 46°12'

North American Datum of 1983
(World Geodetic System of 1984)

SOUNDINGS AND CLEARANCES OF BRIDGES
AND OVERHEAD CABLES IN FEET
AT COLUMBIA RIVER DATUM
(MEAN LOWER LOW WATER DURING LOWEST RIVER STAGES)

Additional information can be obtained at nauticalcharts.noaa.gov.

SCALE 1:40,000
Nautical Miles
Statute Miles
Yards

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 7. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 13th Coast Guard District in Seattle, Washington or at the Office of the District Engineer, Corps of Engineers in Seattle, Washington.

Refer to charted regulation section numbers.

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio stations listed below provide continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Astoria, OR	KEC-91	162.400 MHz
Neahkahnie, OR	WWF-94	162.425 MHz
Tillamook, OR	WWF-95	162.475 MHz
Olympia, WA	WXM-62	162.475 MHz
Portland, OR	KIG-98	162.550 MHz

LOCAL MAGNETIC DISTURBANCE

Differences of as much as 3° from the normal variation may be expected within the limits of this chart.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System of 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.603" southward and 4.463" westward to agree with this chart.

COLUMBIA RIVER CHANNEL DEPTHS PILLAR ROCK LOWER RANGE TO GULL ISLAND TURN AND CHANNEL TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF 11-Oct-13								
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 (Feet)
Miller Sands Range	45	45	43	42	19-Sep-13	600	2.2	43
Pillar Rock Lower Range	41	43	43	41	19-Sep-13	600	3	43
Pillar Rock Upper Range	43	46	42	43	16-Sep-13	600	1.9	43
Welch Island Reach	45	47	42	32	16-Sep-13	600	3.2	43
Skamokawa Channel	39	43	43	39	24-Sep-13	600	3.3	43
Steamboat Reach	46	46	44	44	24-Sep-13	600	1.4	43
Puget Island Range & Turn	41	43	43	42	18-Sep-13	600	3.5	43
Wauna Range	40	44	44	41	23-Sep-13	600	2	43
Driscoll Range	40	44	44	42	23-Sep-13	600	1.7	43
Westport Turn & Range	40	43	43	43	18-Sep-13	600	2	43
Westport Channel	41	44	44	40	18-Sep-13	600	2.4	43
Eureka Lower Channel	47	46	45	43	17-Sep-13	600	2.1	43
Eureka Upper Channel	41	44	43	41	17-Sep-13	600	0.8	43
Oak Point Channel	44	44	45	43	30-Sep-13	600	3	43
Gull Island Turn and Channel	46	43	42	37	2-Oct-13	600	2.2	43

* For Controlling Depth Information, consult the Local Notice to Mariners and/or the following Portland District US Army Corps of Engineers website: http://www.nwp.usace.army.mil/Missions/Navigation.aspx
Channel status reports

TIDAL INFORMATION

PLACE		Height referred to datum of soundings (MLLW)		
NAME	(LAT/LONG)	Mean Higher High Water	Mean High Water	Mean Low Water
		feet	feet	feet
Harrington Point, WA	(46°16'N/123°39'W)	7.7	7.0	0.9
Cathlamet, WA	(46°12'N/123°23'W)	6.7	6.1	0.6
Settlers Point, OR	(46°10'N/123°41'W)	8.0	7.3	1.0
Wauna, OR	(46°10'N/123°24'W)	6.3	5.9	0.6
Skamokawa, WA	(46°16'N/123°27'W)	6.9	6.5	0.8

NOTE: The diurnal range of the tide during low river stages is 6.9 ft. at Three Tree Pt., 6.4 ft. at Cathlamet, and 5.5 ft. at Eagle Cliff. The range becomes progressively smaller with higher stages of the river.

Dashes (- - -) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from http://tidesandcurrents.noaa.gov.

(Sep 2013)

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)

Aids to Navigation (lights are white unless otherwise indicated):

AERO aeronautical	G green	Mo morse code	R TR radio tower
Al alternating	IQ interrupted quick	N nun	Rot rotating
B black	Iso isophase	OBSC obscured	s seconds
Bn beacon	LT HO lighthouse	Oc occulting	SEC sector
C can	M nautical mile	Or orange	St M statute miles
DIA diaphone	m minutes	Q quick	VQ very quick
F fixed	MICRO TR microwave tower	R red	W white
Fl flashing	Mkr marker	Ra Ref radar reflector	WHIS whistle
		R Bn radiobeacon	Y yellow

Bottom characteristics:

Blds boulders	Co coral	gy gray	Oys oysters	so soft
bk broken	G gravel	h hard	Rk rock	Sh shells
Cy clay	Grs grass	M mud	S sand	sy sticky

Miscellaneous:

AUTH authorized	Obstn obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rep reported	

21 Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.

HEIGHTS

Heights in feet above Mean High Water.

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers and U.S. Coast Guard.

WOODY ISLAND CHANNEL

Woody Island Channel is subject to continual change. Woody Island Channel Buoys 2, 4, & 5 are not charted because they are frequently shifted and are privately maintained.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

SCALE 1:40,000
Nautical Miles
Statute Miles
Yards

COLUMBIA RIVER

Mileage distances along the Columbia River are in Statute Miles eastward from the mouth and are indicated thus:

Tables for converting statute miles to International Nautical miles are given in Coast Pilot 7.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

COLUMBIA RIVER TAB DIAGRAM

A Left outside quarter controlling depth (including widener)
B Left inside quarter controlling depth
C Right inside quarter controlling depth
D Right outside quarter controlling depth

COLUMBIA RIVER TAB DIAGRAM

Columbia River main channel - Controlling depths for outside quarters include the adjacent widener/fillet when applicable.

BEAVER SLOUGH/CLATSKANIE RIVER TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO NOV 1998			
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT COLUMBIA RIVER DATUM (CRD)			
NAME OF CHANNEL	DEPTH (FEET)	WIDTH (FEET)	DATE OF SURVEY
BEAVER SLOUGH/CLATSKANIE RIVER			
ENTRANCE TO THE MOUTH OF BEAVER DREDGE CUT	A1.0	-	11-98
THENCE TO HIGHWAY BRIDGE AT CLATSKANIE	A1.0	-	11-98

A. MARINERS SHOULD OBTAIN LOCAL KNOWLEDGE BEFORE NAVIGATING THESE WATERWAYS DUE TO THE EXISTENCE OF NUMEROUS SHOAL AREAS.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGING CONDITIONS SUBSEQUENT TO THE ABOVE

58th Ed., Nov. /13 ■ Corrected through NM Nov. 16/13
Corrected through LNM Nov. 12/13

18523

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

NOAA encourages users to submit inquiries, discrepancies or comments about this chart at http://www.nauticalcharts.noaa.gov/staff/contact.htm.

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U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102

METERS 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

NSN 7642014011577
NGA REFERENCE NO. 18BHA18523

Corrected through
LNM: 0414 (1/28/2014), NM: 0514 (2/1/2014), CHS: 1213 (12/27/2013)

To ensure that this chart was printed at the proper scale, the line below should measure six inches (152 millimeters).
If the line does not measure six inches (152 millimeters), this copy is not certified safe for navigation.