

BookletChart™

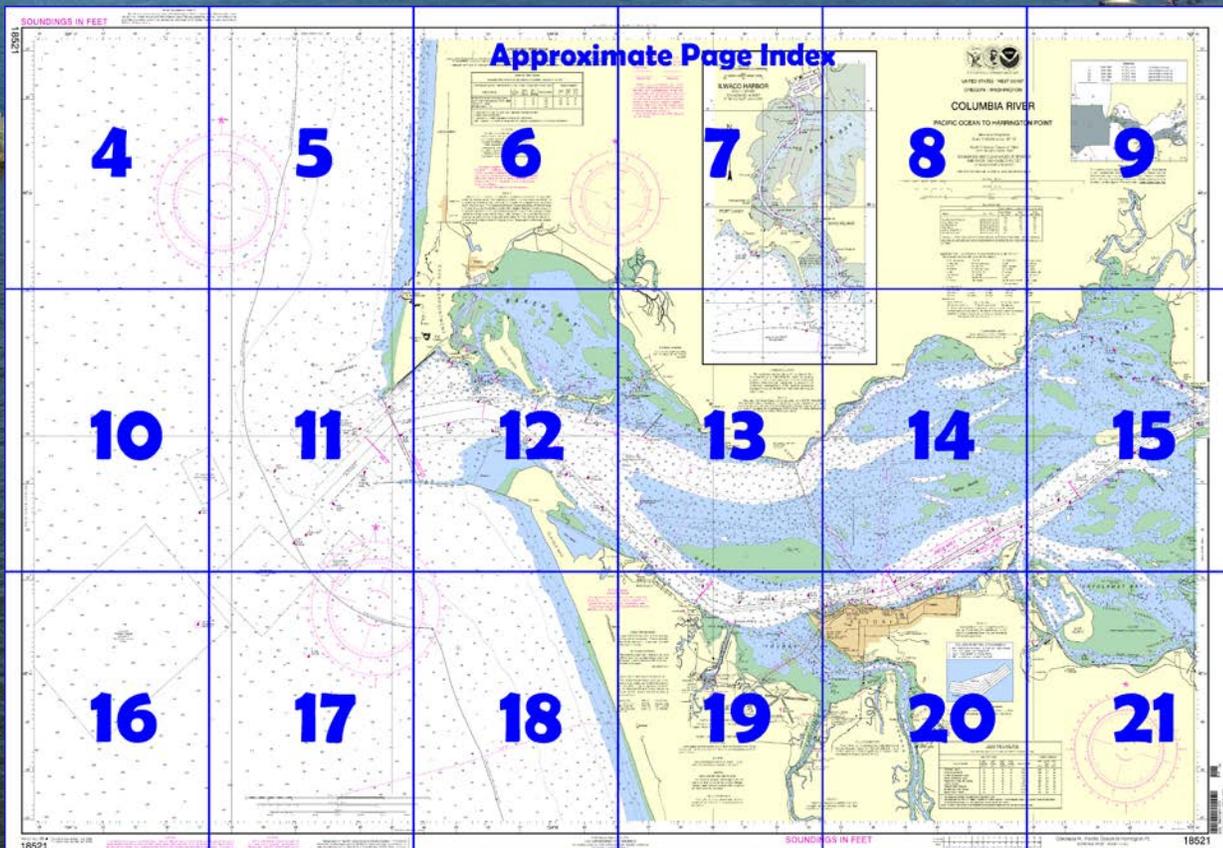


Columbia River – Pacific Ocean to Harrington Point NOAA Chart 18521

A reduced-scale NOAA nautical chart for small boaters
When possible, use the full-size NOAA chart for navigation.



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



**Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA**

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=18521>.



**(Selected Excerpts from Coast Pilot)
Reports of Oil Spills and Vessel**

Emergencies.—All vessels must report oil spills or potential oil spills to both Washington State (800-258-5990) and National Response Center (800-424-8802).

Washington State Vessel

Inspections.—The Washington State Department of Ecology regulates cargo and passenger vessels and tank vessels operating in Washington waters. (See Coast Pilot 7, chapter 10.)

Oil Transfer Requirements.—Safe

bunkering procedures must be followed during fueling operations. For vessels 300 gross tons or greater, Washington State Ecology inspectors

may conduct **inspections** of these regulated oil transfers on vessels receiving fuel within Washington waters. Details can be found in state regulations at Washington Administrative Code (WAC) 317-40.

Tank vessels delivering oil in bulk to a non-recreational vessel or facility within Washington waters must meet state oil transfer requirements. They may also be subject to Washington State **oil transfer inspections** for these regulated oil transfers. Details can be found in WAC 173-184. For a transfer of over 100 gallons of bulk oil to a facility or non-recreational vessel, the delivering vessel must submit an Advance Notice of Transfer (ANT) report. The ANT must be submitted 24 hours prior to the transfer for facilities or within the timeframe required by local USCG Captain of the Port. The ANT report can be made online (<https://secureaccess.wa.gov/ecy/ants>), by fax (360-407-7288 or 800-664-9184), or by e-mail (Oil-TransferNotifications@ecy.wa.gov).

Contingency Plan Requirements.—Tank vessels and cargo and passenger ships 300 gross tons or larger transiting Washington waters must either have a Washington State Department of Ecology approved **oil spill contingency plan** or be a member of a non-profit corporation that provides oil spill response capabilities consistent with their Washington State approved contingency plan. Additional information is available at <http://www.ecy.wa.gov/programs/spills/spills.html>.

Caution.—The volcanic eruptions of Mount Saint Helens in mid-1980 caused extensive flooding with resulting heavy siltation in the lower Columbia River. Mariners are advised to use caution in the Columbia River and its tributaries. Mariners should contact any hopper dredges, dredge barges and pipeline dredges encountered on VHF-FM channel 13 to make passing arrangements; navigate with due caution.

Caution.—The Columbia River bar is reported to be very dangerous because of sudden and unpredictable changes in the currents often accompanied by breakers.

In the entrance the currents are variable, and at times reach a velocity of over 5 knots on the ebb; on the flood they seldom exceed 4 knots. The current velocity is 3.5 knots, but this tidal current is always modified both as to velocity and time of slack water by the river discharge.

Free floating logs and submerged deadheads or sinkers are a constant source of danger in the Columbia and Willamette Rivers. The danger is increased during spring freshets. **Deadheads** or **sinkers** are logs which have become adrift from rafts or booms.

Pilotage, Columbia River and Bar.—Pilotage across the Columbia River bar and up or down the river is compulsory for U.S. vessels enrolled or sailing under Registry and all foreign vessels, except foreign recreational or fishing vessels not more than 100 feet in length or 250 gross tons. Embarking and disembarking Columbia River Bar Pilots is accomplished by helicopter or boat. All vessels are required to contact Columbia River Bar Pilots via VHF channel 9, 13, or 16 at least two hours before their ETA. The call sign for the Bar Pilot office is KOK-360. At that time vessels will be advised of pilot boarding instructions. The primary method of pilot boarding is by helicopter. Vessels should not approach the CR buoy until advised by a pilot. While awaiting a pilot boarding by helicopter or pilot boat, vessels should stay within a marshaling area approximately 5 miles west of the CR buoy.

HELICOPTER TRANSFER PROCEDURES (see Coast Pilot 7, page 436)

When the fixed amber light atop the pilot office at Astoria is exhibited, it will inform outward bound vessels that desire a bar pilot that the bar is not passable and that the vessel should remain in port.

**U.S. Coast Guard Rescue Coordination Center
24 hour Regional Contact for Emergencies**

RCC Seattle

Commander

13th CG District

(206) 220-7001

Seattle, WA

Table of Selected Chart Notes

Corrected through NM Aug. 8/09
Corrected through LNM Jul. 28/09

WARNING

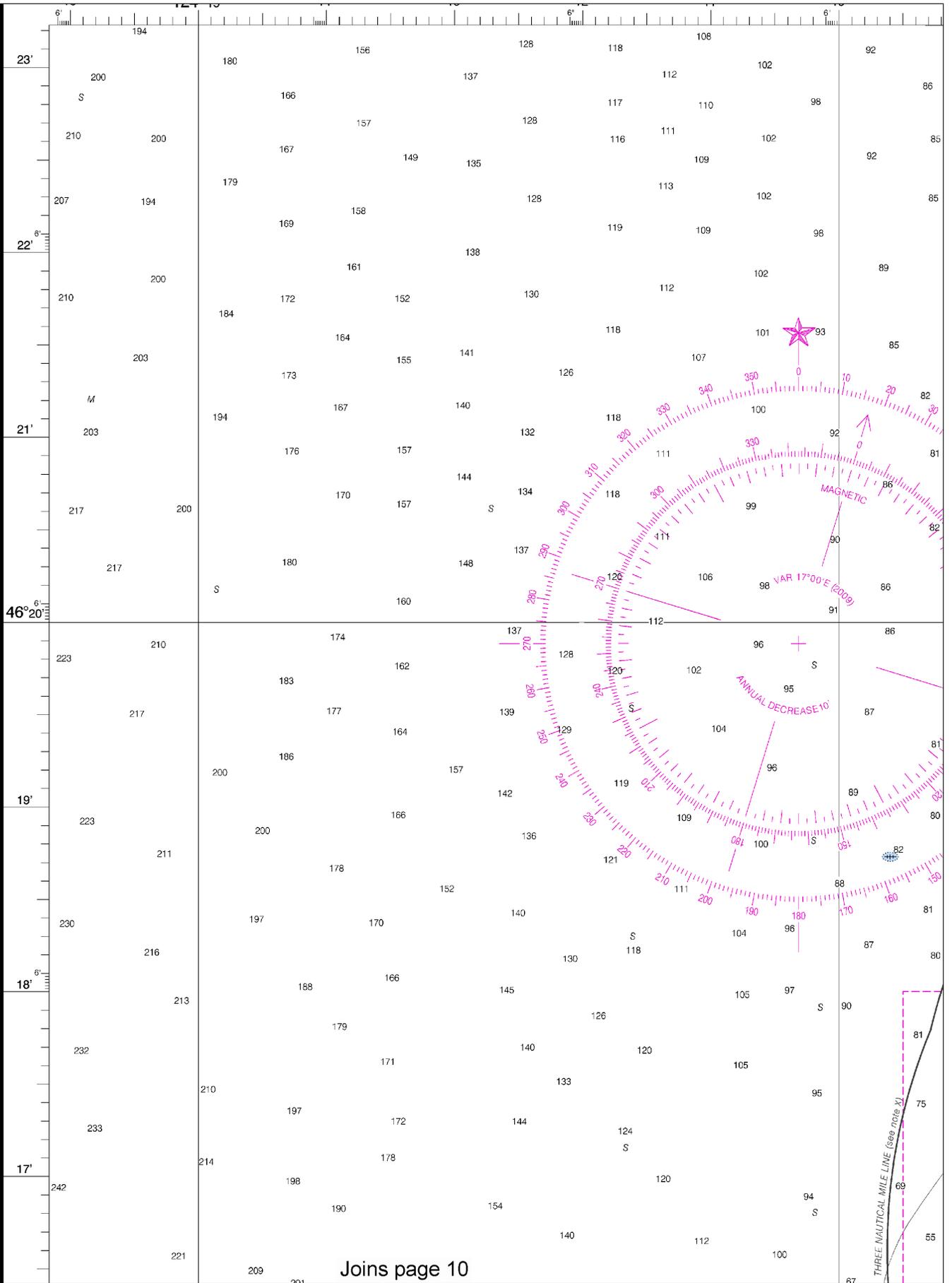
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

Mercator Projection
Scale 1:40,000 at Lat 46° 13'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS AND CLEARANCES OF BRIDGES
AND OVERHEAD CABLES IN FEET
AT MEAN LOWER LOW WATER

3521



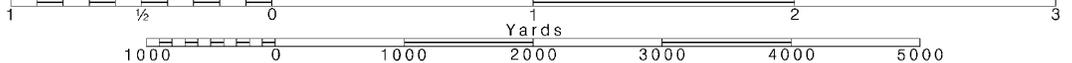
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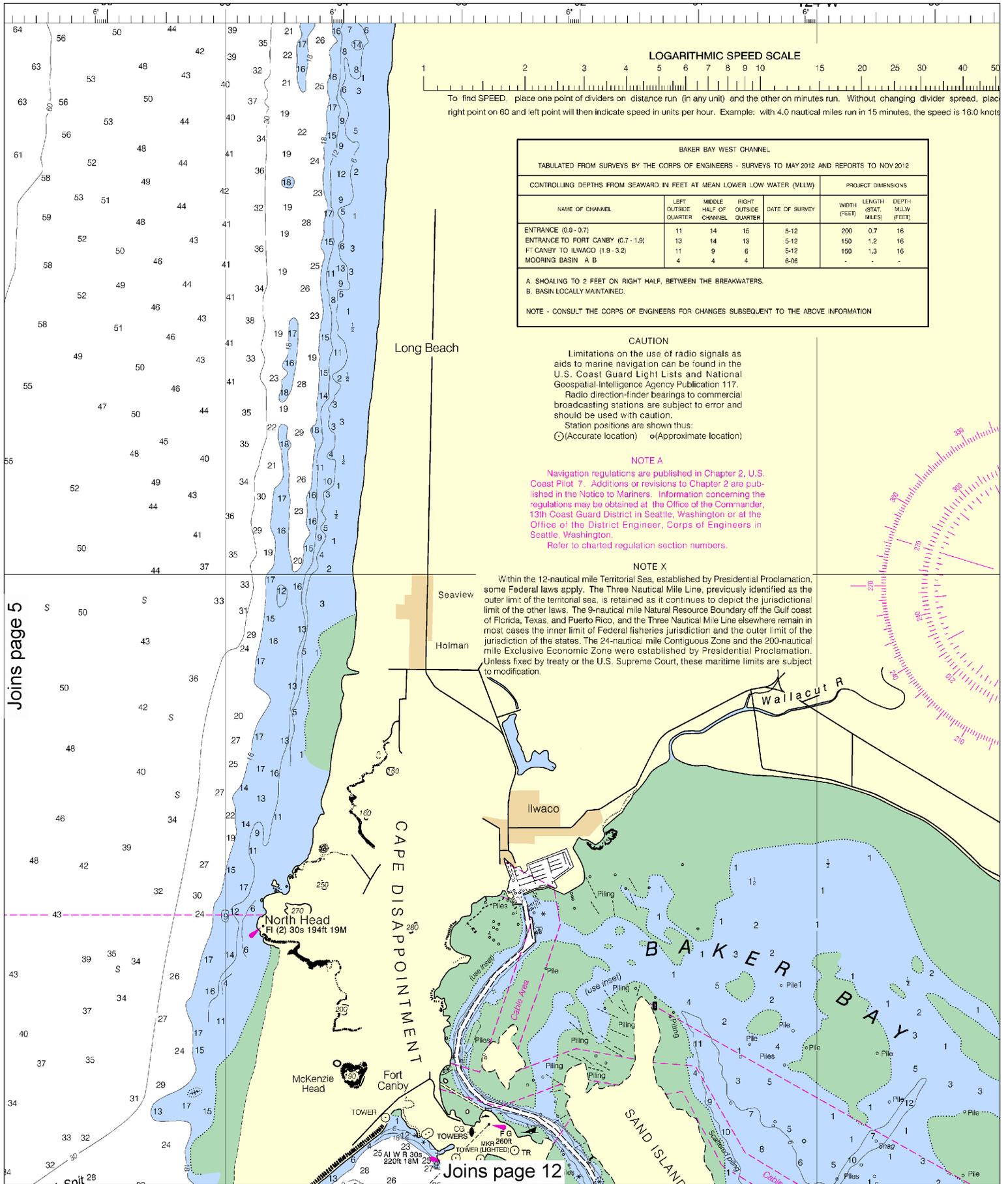
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000 Nautical Miles

See Note on page 5.





Joins page 5

Joins page 12

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Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000
Nautical Miles

See Note on page 5.





THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES - WEST COAST
OREGON - WASHINGTON

COLUMBIA RIVER

PACIFIC OCEAN TO HARRINGTON POINT

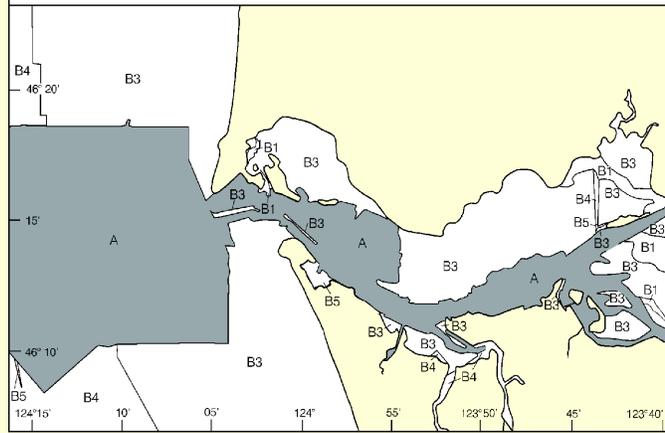
Mercator Projection
Scale 1:40,000 at Lat 46° 13'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS AND CLEARANCES OF BRIDGES
AND OVERHEAD CABLES IN FEET
AT MEAN LOWER LOW WATER

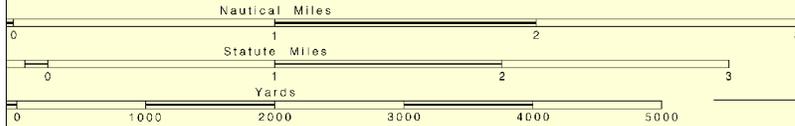
Additional information can be obtained at nauticalcharts.noaa.gov.

SOURCE		
A	1990-2008	NOS Surveys full bottom coverage
B1	1990-2008	NOS Surveys partial bottom coverage
B3	1940-1969	NOS Surveys partial bottom coverage
B4	1900-1939	NOS Surveys partial bottom coverage
B5	Pre-1900	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.



TIDAL INFORMATION				
PLACE		Height referred to datum of soundings (MLLW)		
NAME	(LAT/LONG)	Mean Higher High Water	Mean High Water	Mean Low Water
Columbia River Entrance	(48°16'N/124°04'W)	7.5	6.8	1.2
Waco, Baker Bay	(46°18'N/124°02'W)	7.6	7.0	1.0
Harrington Point	(48°18'N/123°39'W)	7.7	7.0	0.9
Fort Adams	(48°12'N/123°57'W)	8.3	7.6	1.2
Fort Stevens, Tongue Point	(48°12'N/123°48'W)	8.6	7.9	1.2
Hook, Baker Bay	(46°16'N/123°57'W)	8.1	7.4	1.3

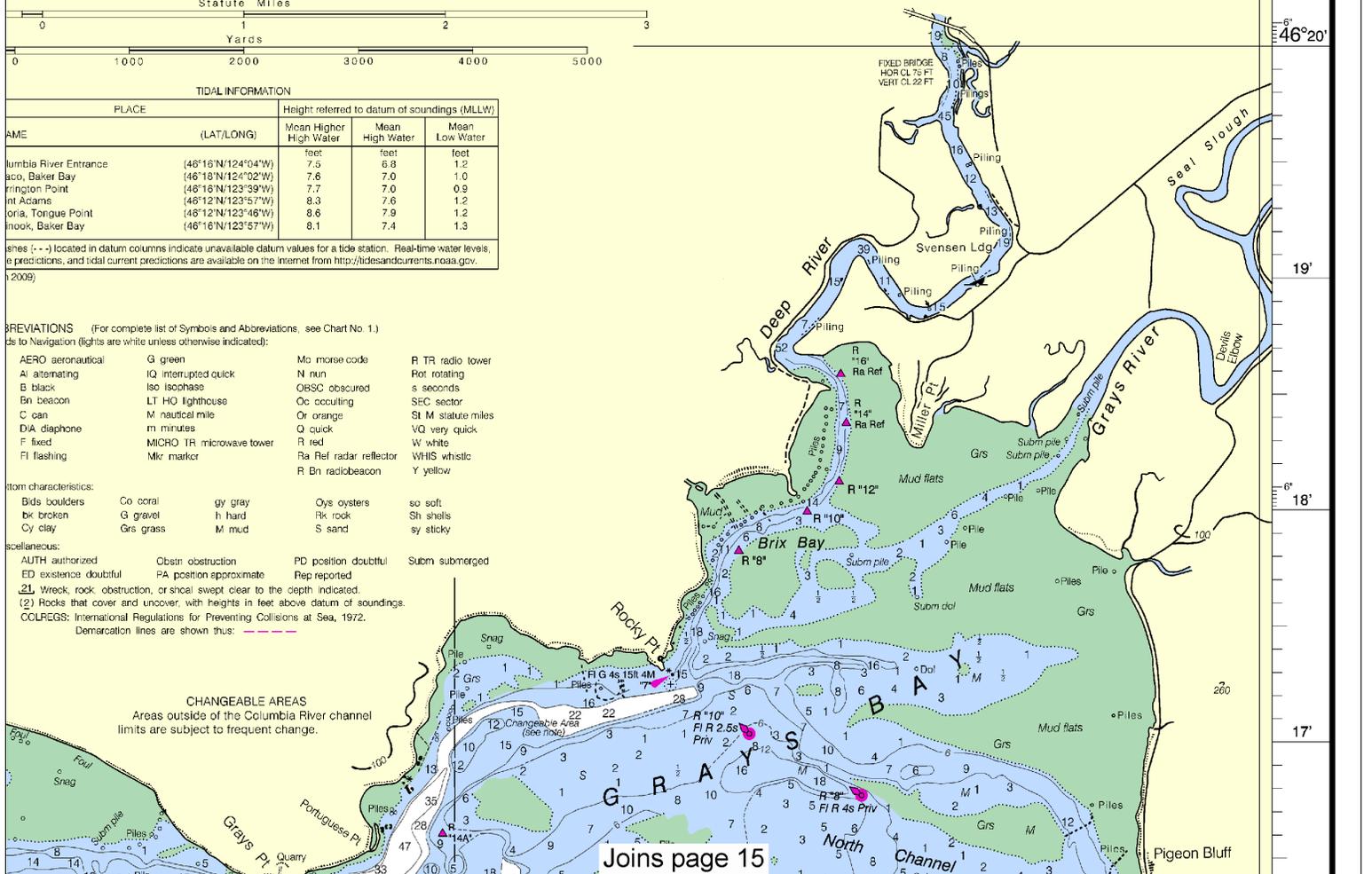
Shades (- -) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the internet from <http://tidesandcurrents.noaa.gov> (2009).

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)
As to Navigation (lights are white unless otherwise indicated):

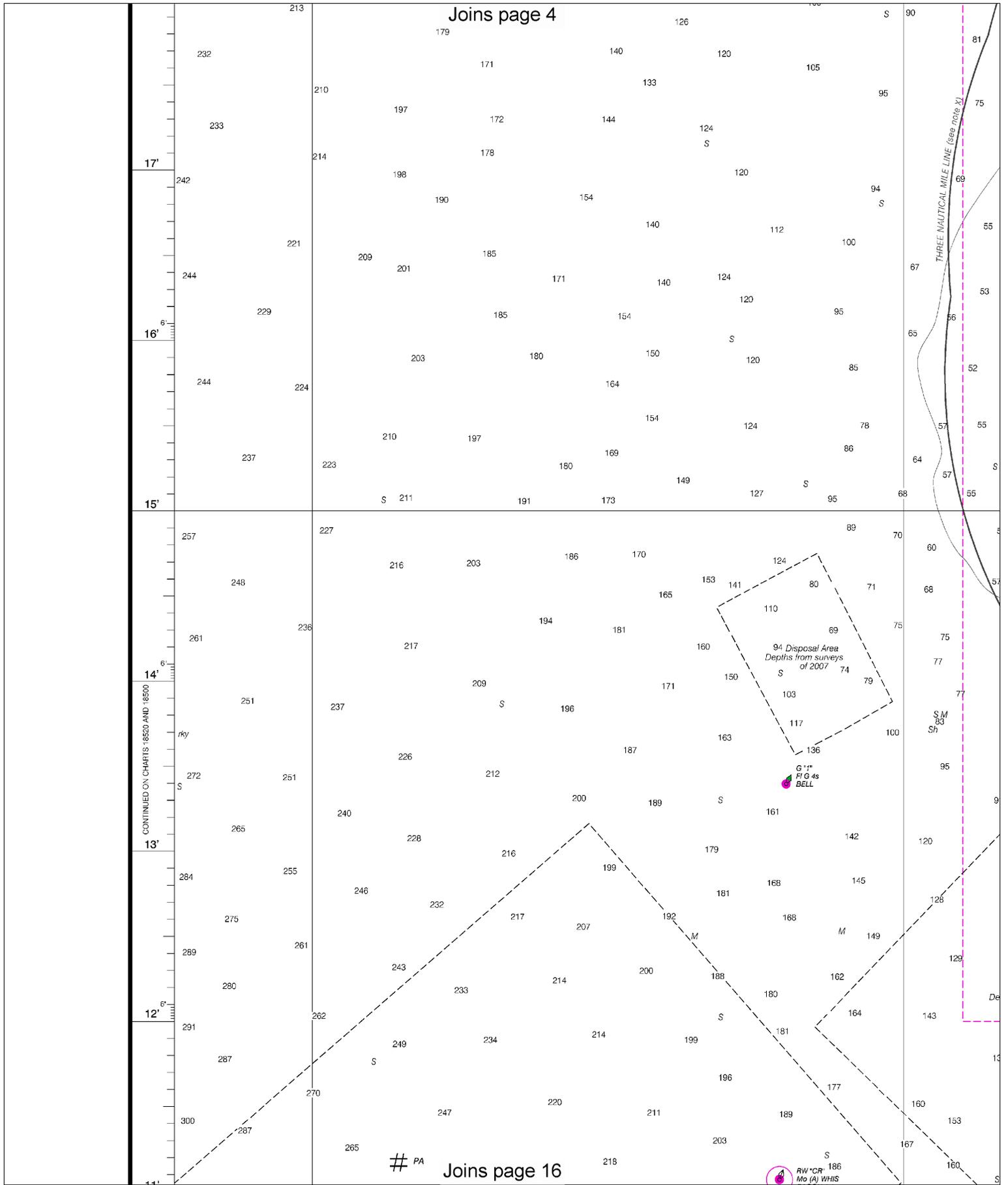
AERO aeronautical	G green	Mo Morse code	R TR radio tower
Al alternating	IQ interrupted quick	N nun	Rot rotating
B black	iso isophase	OBSC obscured	s seconds
Bn beacon	LT HG lighthouse	SEC sector	SI M statute miles
C can	M nautical mile	Or orange	SI M statute miles
DA diaphone	m minutes	VQ very quick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

Bottom characteristics:			
Bds boulders	Co coral	gy gray	Oys oysters
bk broken	G gravel	h hard	so soft
Cy clay	GrS grass	M mud	Sh shells
			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 snarl swept clear to the depth indicated.			
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.			
COLREGS: International Regulations for Preventing Collisions at Sea, 1972.			
Demarcation lines are shown thus: ---			

CHANGEABLE AREAS
Areas outside of the Columbia River channel limits are subject to frequent change.



Joins page 15



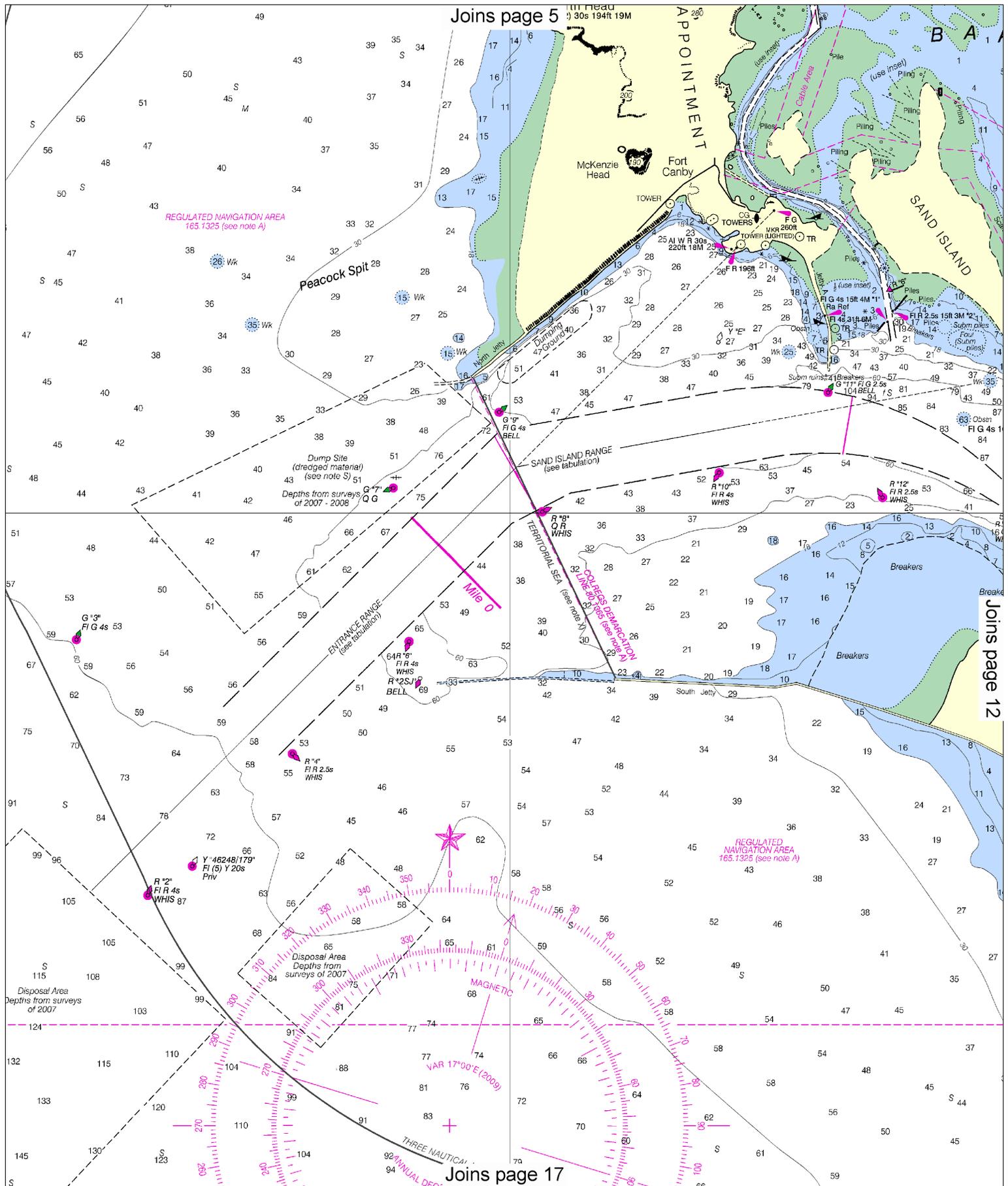
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Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000
Nautical Miles

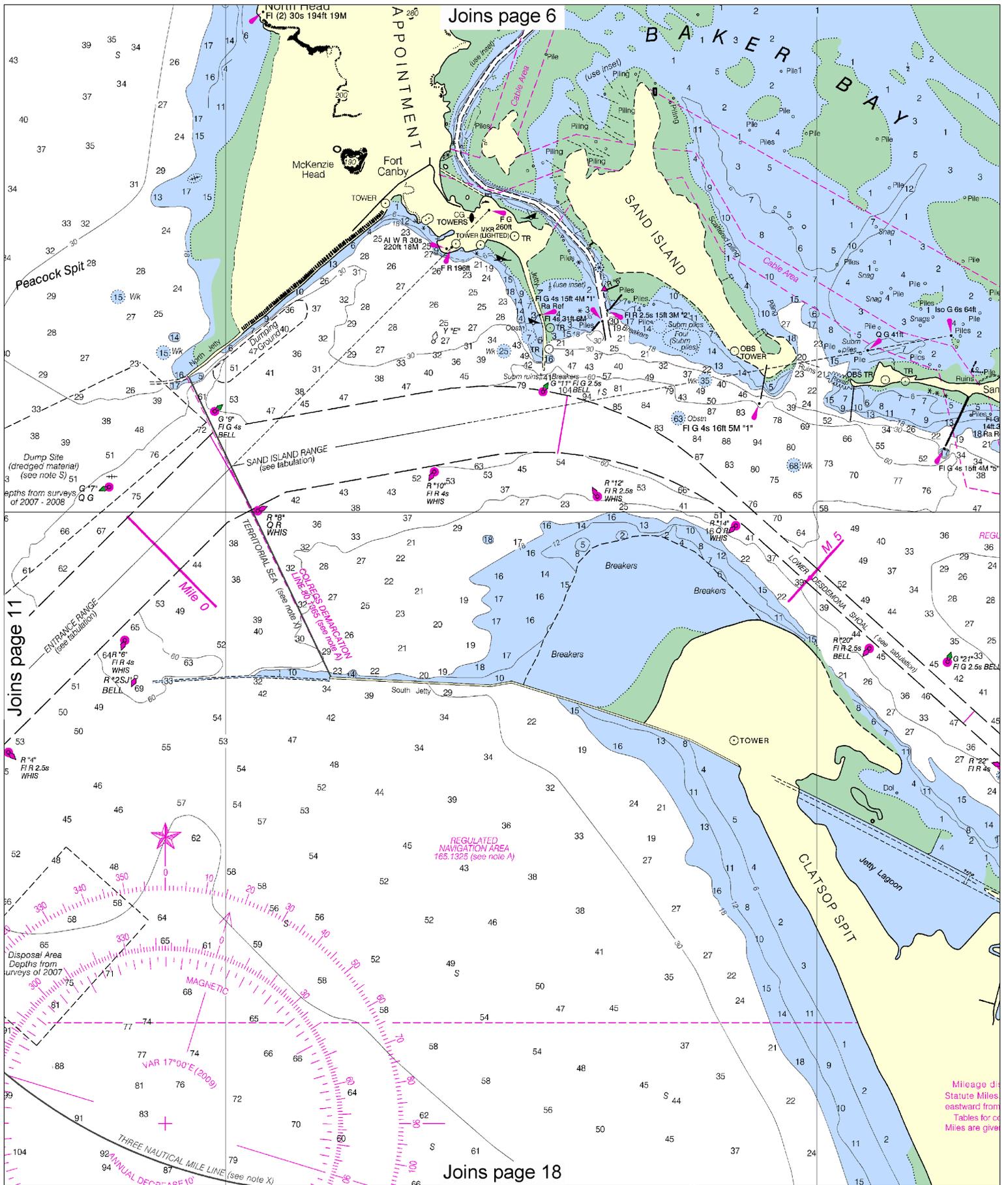
See Note on page 5.



Joins page 5

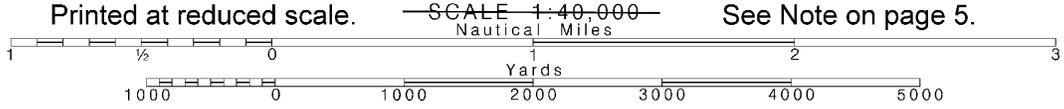
Joins page 12

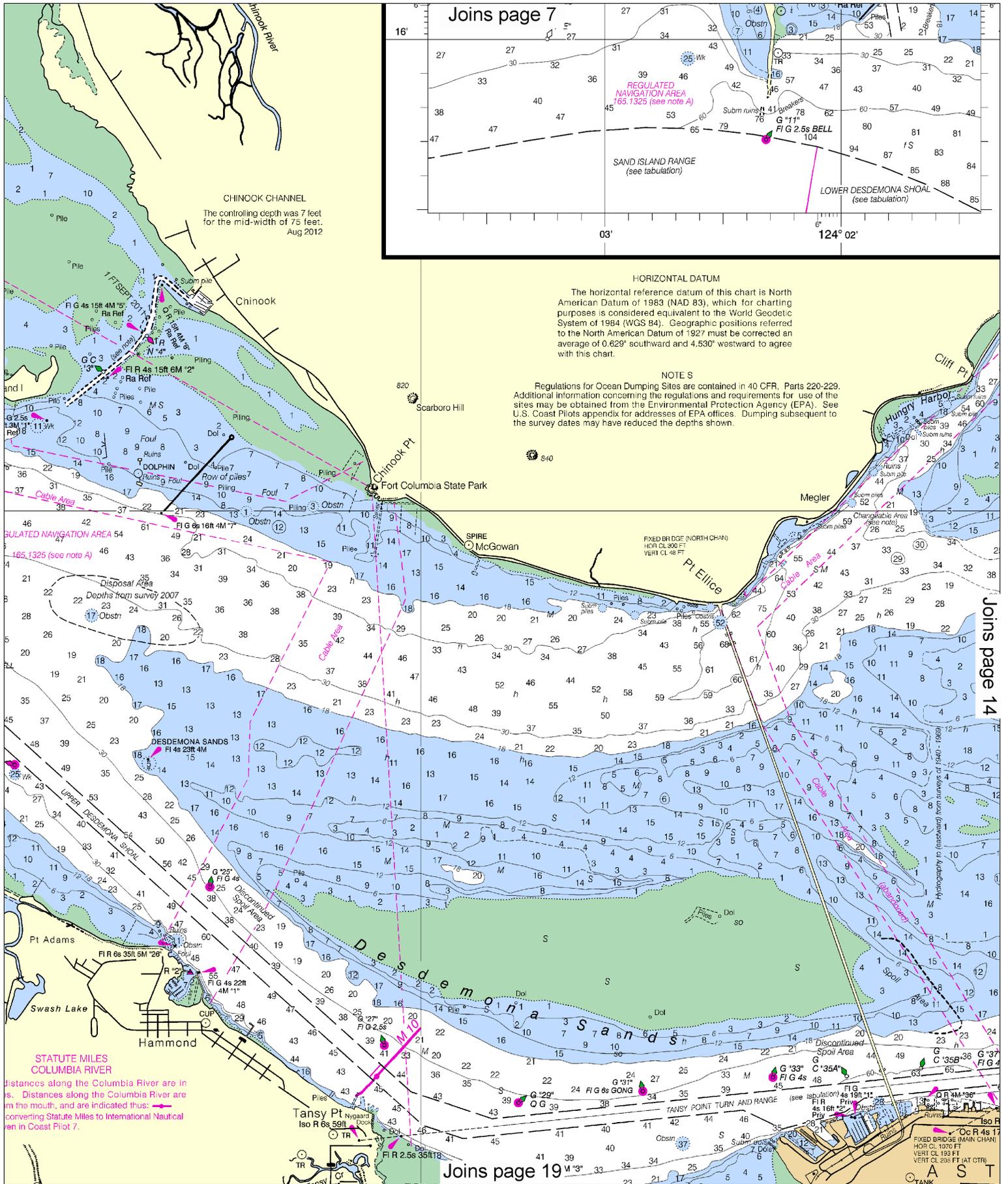
Joins page 17

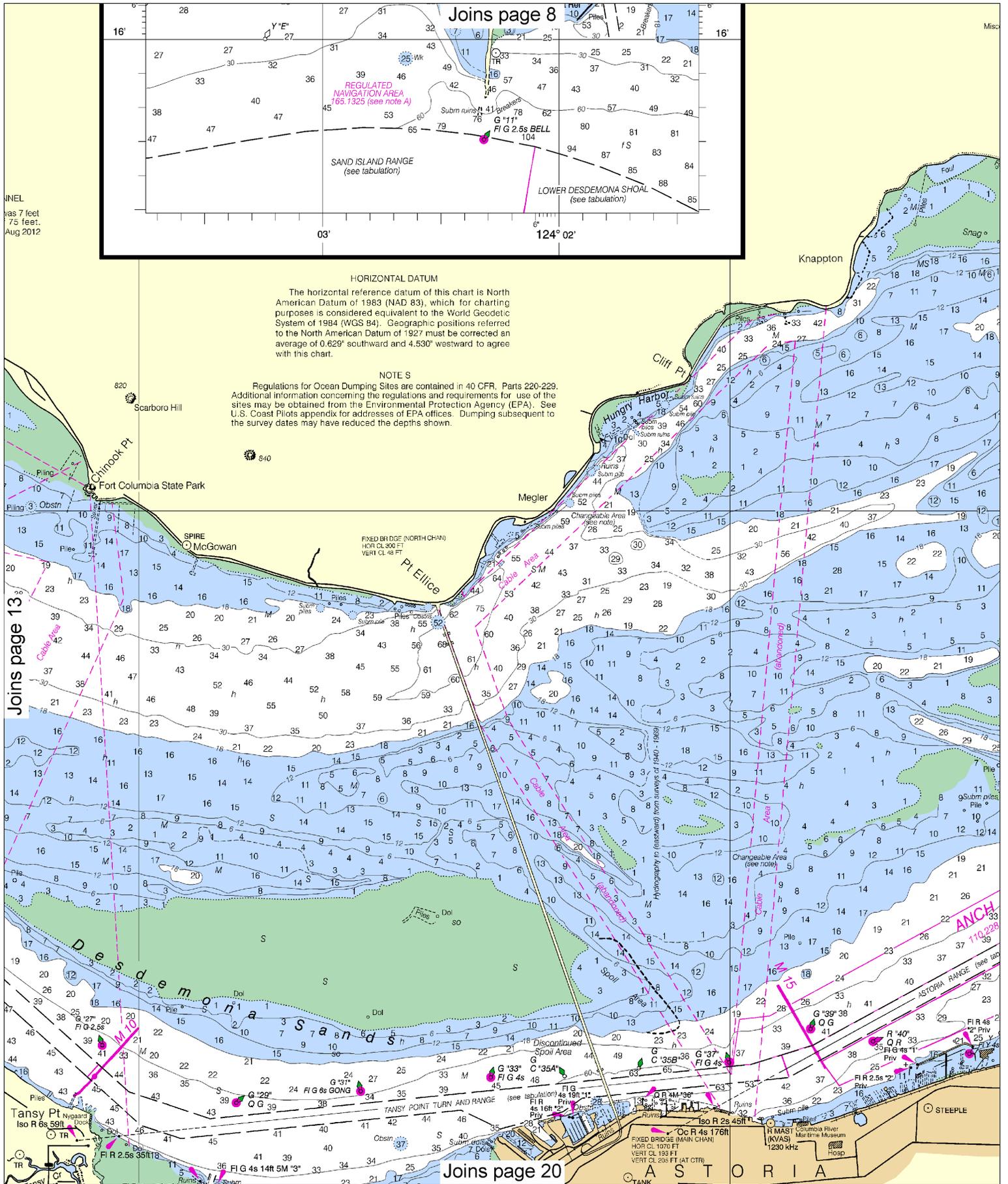


12

Note: Chart grid lines are aligned with true north.







14

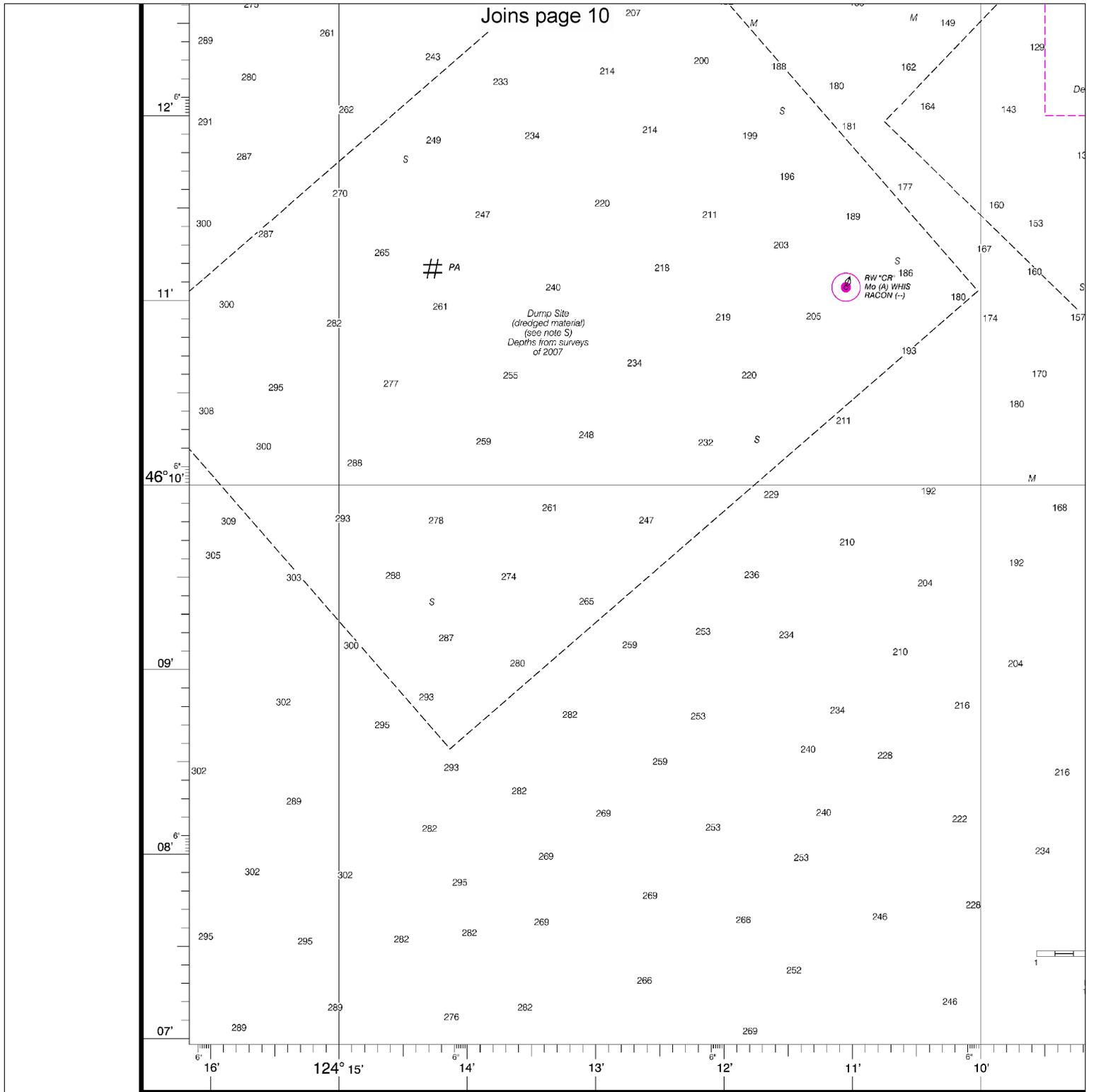
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000
 Nautical Miles

See Note on page 5.





74th Ed., Aug. / 09 ■ Corrected through NM Aug. 8/09
 Corrected through LNM Jul. 28/09

18521

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.

The presence of any single floating aid and U.S.

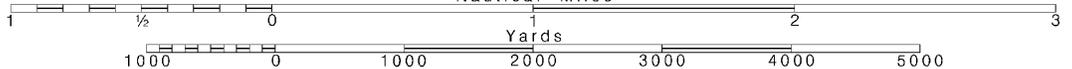
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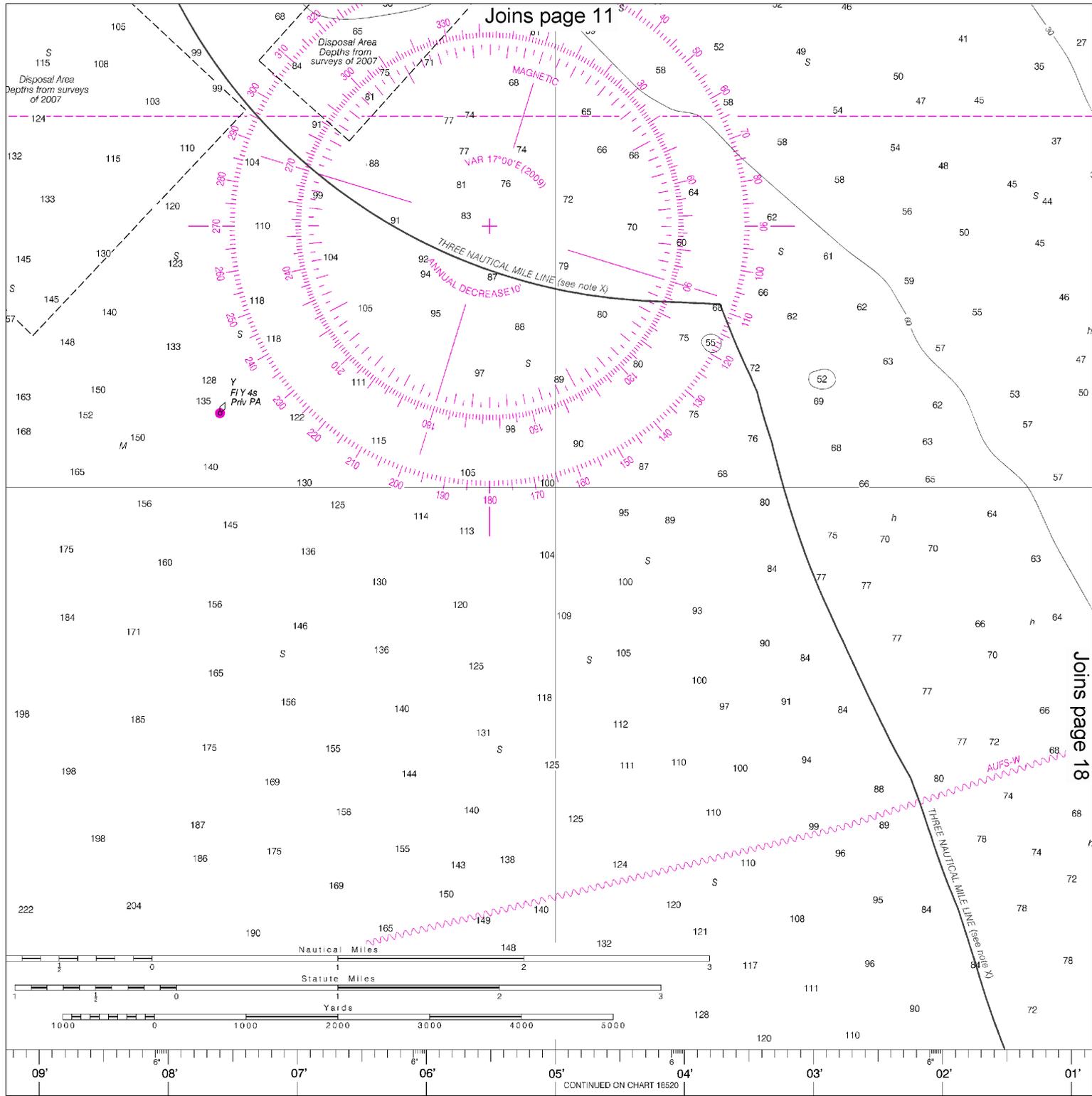
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SCALE 1:40,000
 Nautical Miles

See Note on page 5.

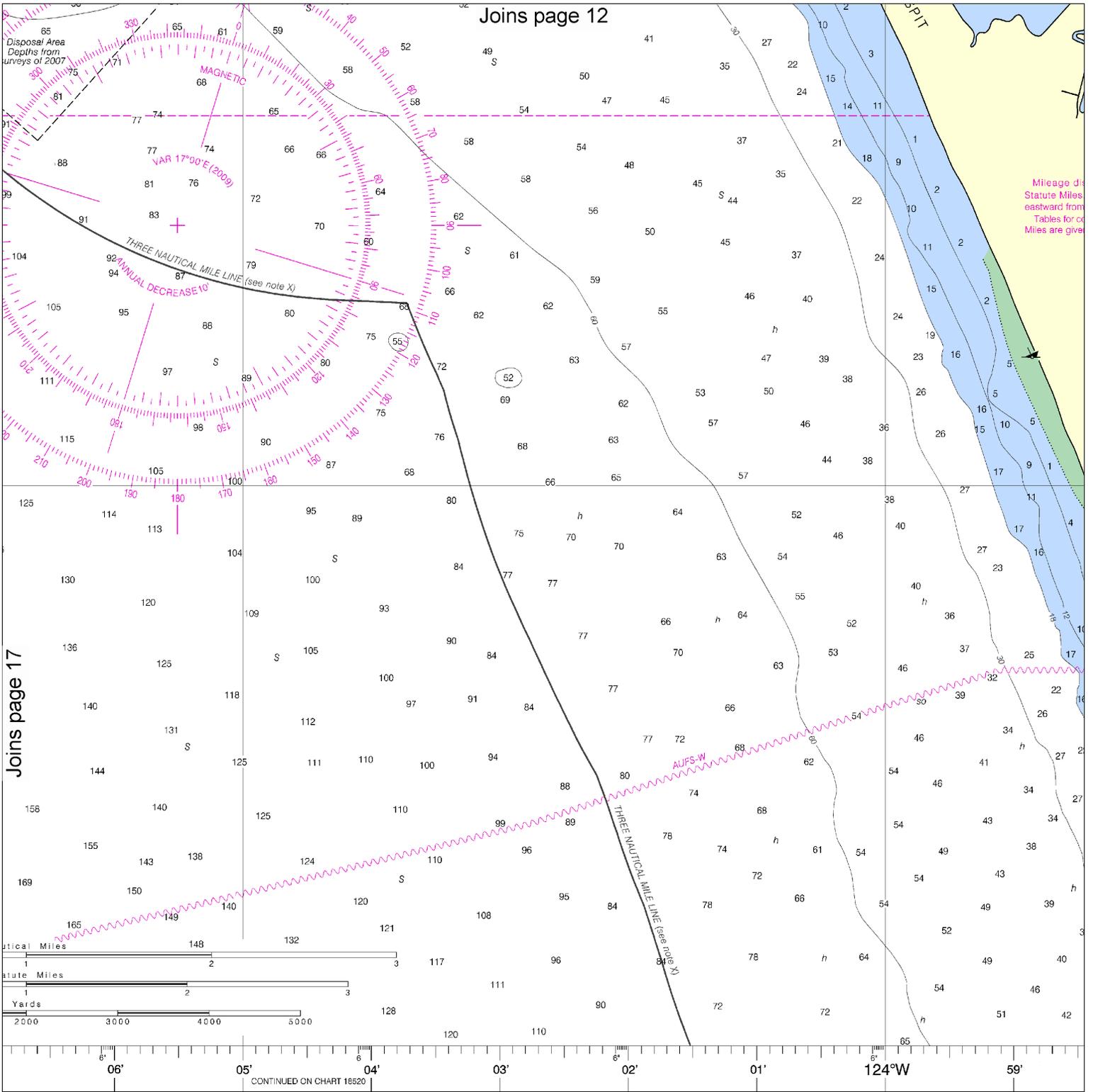




WARNING

A prudent mariner will not rely solely on this chart for navigational aid, particularly on the use of aids. See U.S. Coast Guard Light List or U.S. Coast Pilot for details.

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.



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Mileage from
Statute Miles
eastward from
Tables for
Miles are given

This chart has been designed to promote safe navigation. The National Oceanic and Atmospheric Administration encourages users to submit corrections, additions, or comments for this chart to the Chief, Marine Chart Division (N/C52), National Oceanic and Atmospheric Administration, Silver Spring, Maryland 20910-3282.

Published by
U.S. DEPARTMENT OF
NATIONAL OCEANIC AND
ATMOSPHERIC
ADMINISTRATION

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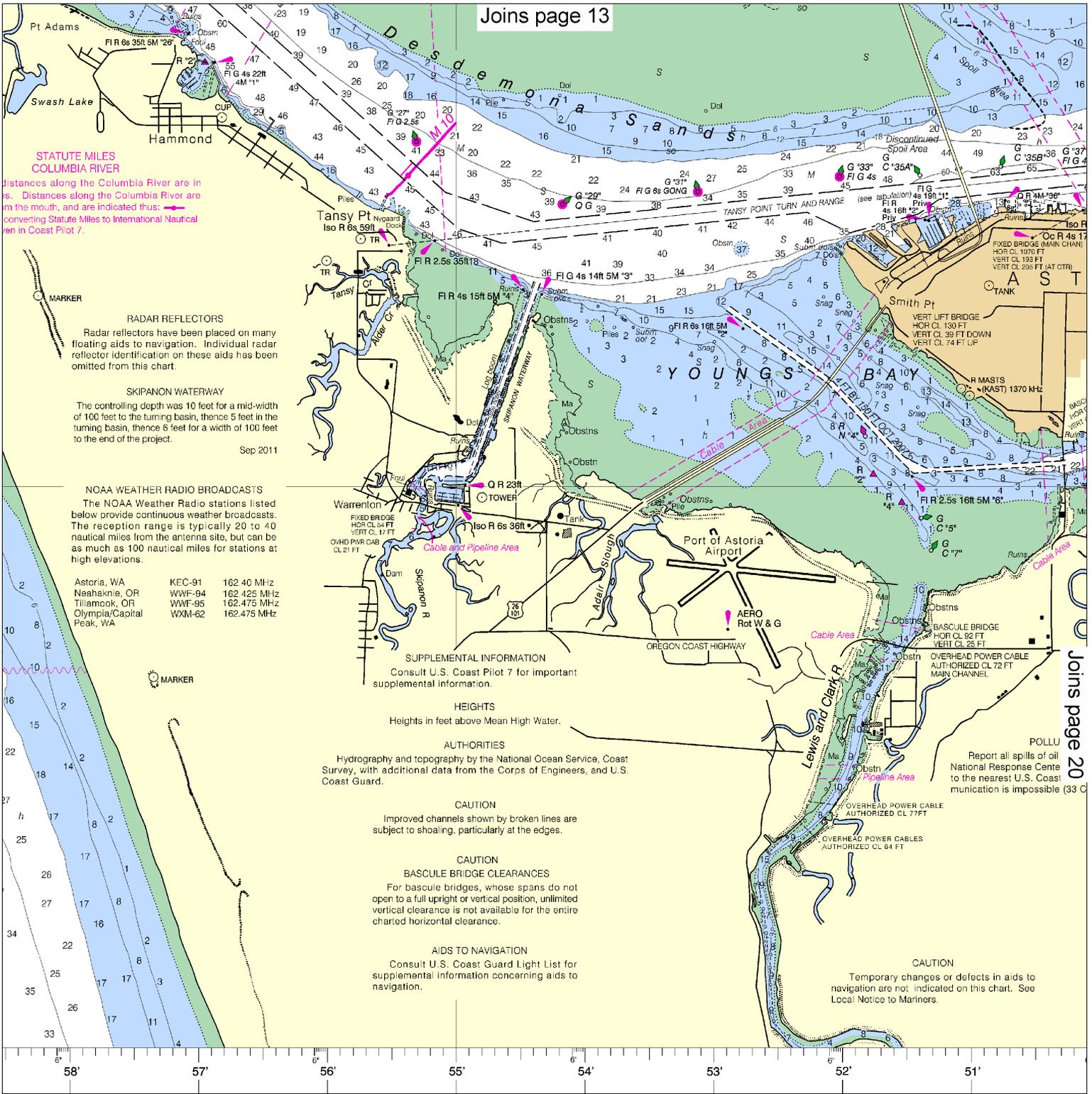
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000
Nautical Miles

See Note on page 5.





STATUTE MILES COLUMBIA RIVER

Distances along the Columbia River are in statute miles. Distances along the Columbia River are in statute miles, and are indicated thus: converting Statute Miles to International Nautical Miles 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.

SKIPANON WATERWAY

The controlling depth was 10 feet for a mid-width of 100 feet to the turning basin, thence 5 feet in the turning basin, thence 6 feet for a width of 100 feet to the end of the project.

Sep 2011

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, WA	KEC-91	162.40 MHz
Neahaknie, OR	WWF-94	162.425 MHz
Tillamook, OR	WWF-95	162.475 MHz
Olympia/Capitol Peak, WA	WXM-62	162.475 MHz

SUPPLEMENTAL INFORMATION

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

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.

CAUTION

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

CAUTION

BASCULE BRIDGE CLEARANCES
For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

AIDS TO NAVIGATION

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

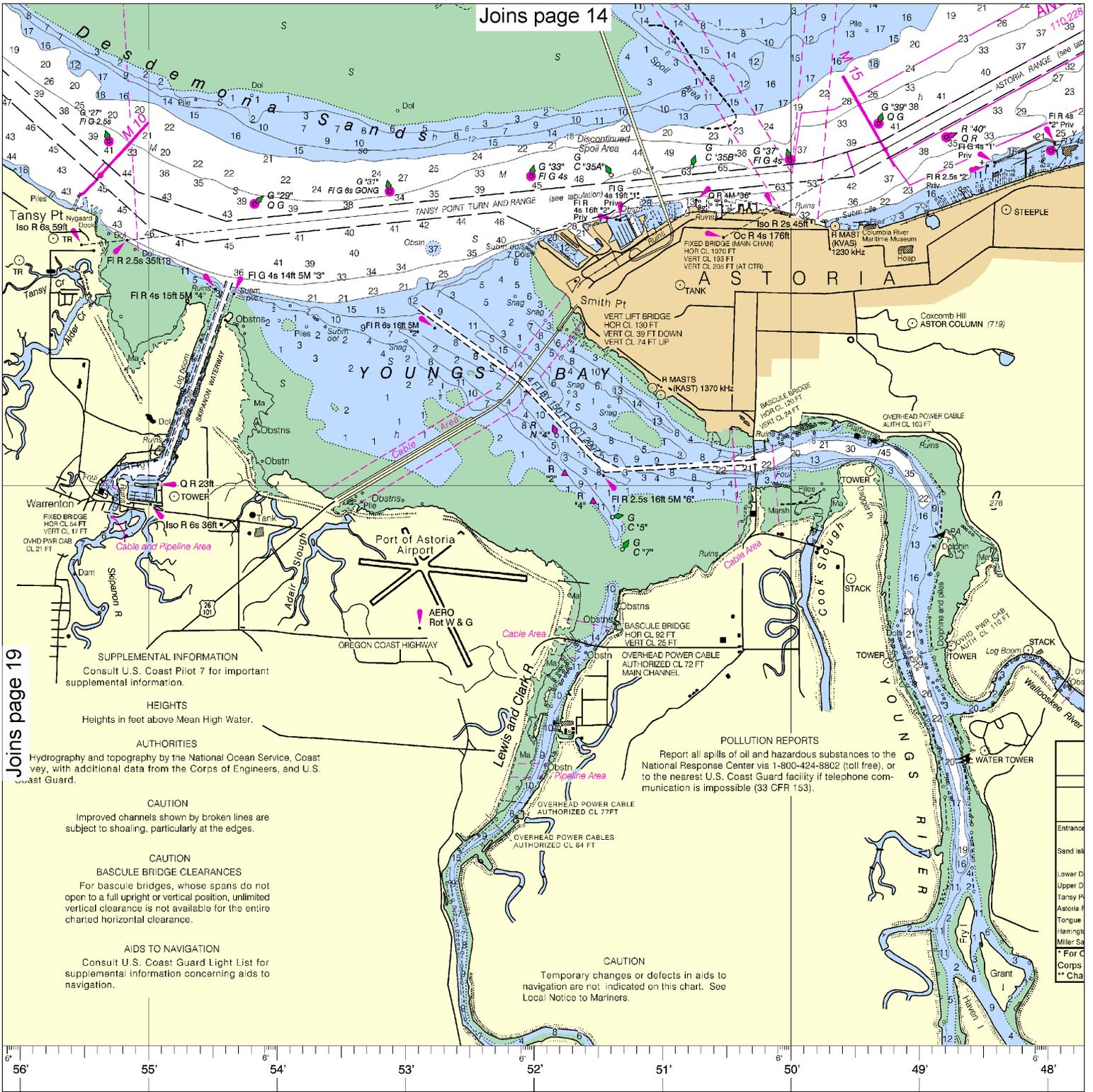
CAUTION

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

Printed at Washington, D.C.
DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

SOUNDINGS IN FEET

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

HEIGHTS
Heights in feet above Mean High Water.

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

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

CAUTION
BASCULE BRIDGE CLEARANCES
For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

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

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).

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

SOUNDINGS IN FEET

- Entrance
- Sand Is.
- Lower D.
- Upper D.
- Tansy Pt.
- Astoria R.
- Tongue Pt.
- Hammitt Pt.
- Miller Sa.
- For C.
- Corps
- ** Cha

FATHOMS
FEET
METERS

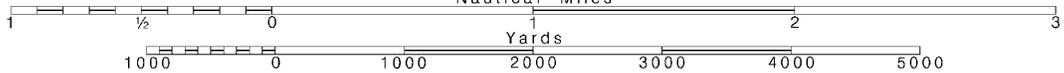


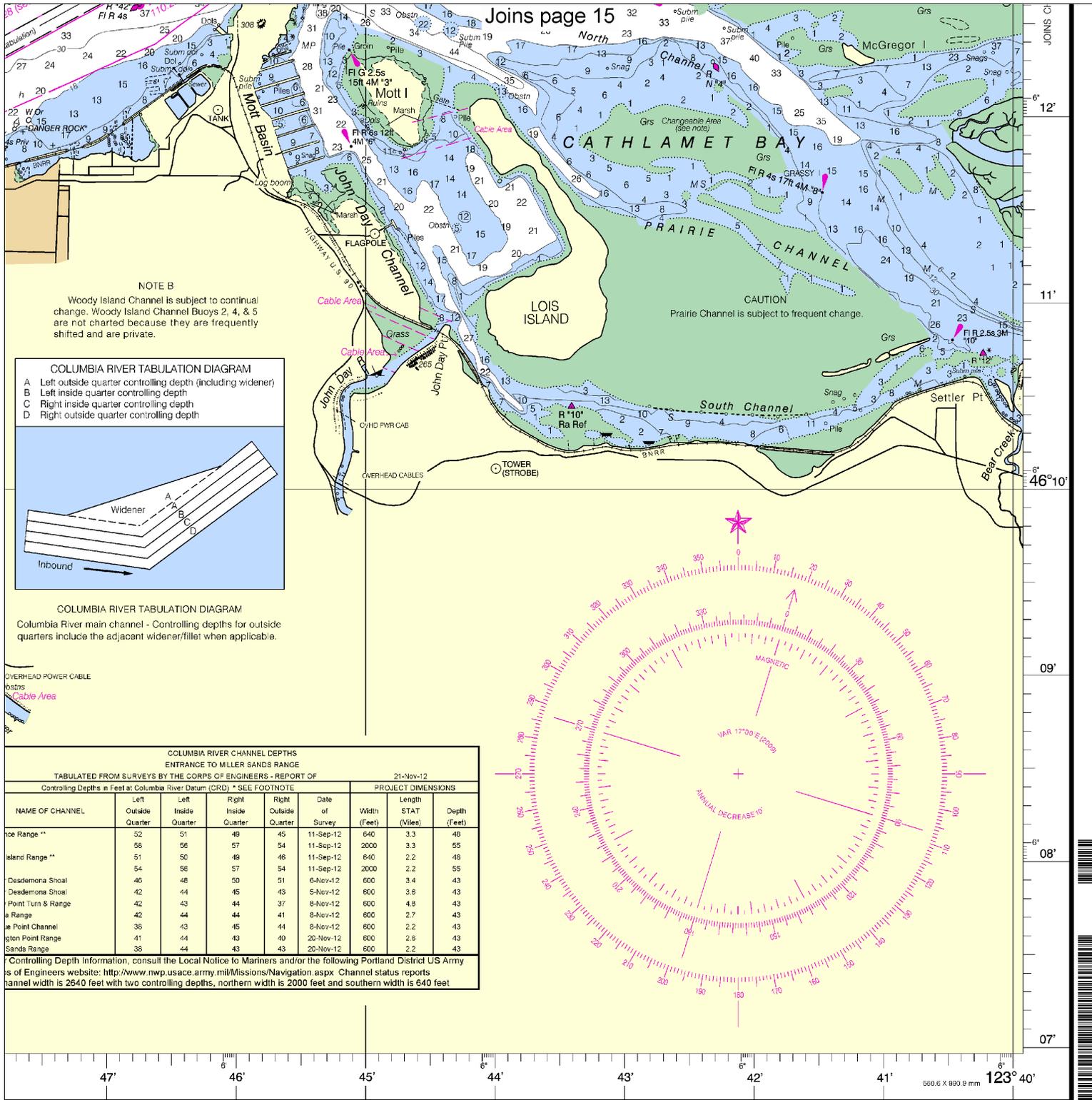
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Nautical Miles

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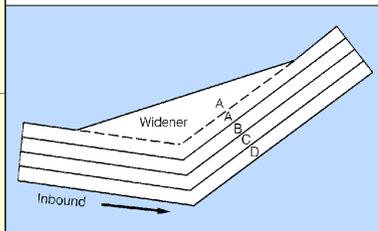


NOTE B

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 private.

COLUMBIA RIVER TABULATION 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 TABULATION DIAGRAM

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

COLUMBIA RIVER CHANNEL DEPTHS

ENTRANCE TO MILLER SANDS RANGE

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF

21-Nov-12

Controlling Depths in Feet at Columbia River Datum (CRD) * SEE FOOTNOTE

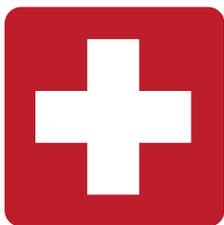
PROJECT DIMENSIONS

NAME OF CHANNEL	Controlling Depths in Feet at Columbia River Datum (CRD) * SEE FOOTNOTE				PROJECT DIMENSIONS			
	Left Outside Quarter	Left Inside Quarter	Right Inside Quarter	Right Outside Quarter	Date of Survey	Width (Feet)	Length STAT (Miles)	Depth (Feet)
Ice Range **	52	51	49	45	11-Sep-12	640	3.3	46
Island Range **	56	56	57	54	11-Sep-12	2000	3.3	55
Desdemona Shoal	51	50	49	46	11-Sep-12	640	2.2	48
Desdemona Shoal	54	56	57	54	11-Sep-12	2000	2.2	55
Point Turn & Range	46	48	50	51	6-Nov-12	600	3.4	43
Island Range	42	44	45	43	5-Nov-12	600	3.6	43
Point Channel	42	43	44	37	8-Nov-12	600	4.8	43
Island Range	42	44	44	41	8-Nov-12	600	2.7	43
Point Channel	38	43	45	44	8-Nov-12	600	2.2	43
Island Range	41	44	43	40	20-Nov-12	600	2.6	43
Sands Range	38	44	43	43	20-Nov-12	600	2.2	43

* 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 Channel width is 2640 feet with two controlling depths, northern width is 2000 feet and southern width is 640 feet

Columbia R., Pacific Ocean to Harrington Pt.
SOUNDINGS IN FEET - SCALE 1:40,000

18521



EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!



NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

Quick References

- Nautical chart related products and information — <http://www.nauticalcharts.noaa.gov>
- Online chart viewer — <http://www.nauticalcharts.noaa.gov/mcd/NOAChartViewer.html>
- Report a chart discrepancy — <http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx>
- Chart and chart related inquiries and comments — <http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs>
- Chart updates (LNM and NM corrections) — http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html
- Coast Pilot online — <http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm>
- Tides and Currents — <http://tidesandcurrents.noaa.gov>
- Marine Forecasts — <http://www.nws.noaa.gov/om/marine/home.htm>
- National Data Buoy Center — <http://www.ndbc.noaa.gov/>
- NowCoast web portal for coastal conditions — <http://www.nowcoast.noaa.gov/>
- National Weather Service — <http://www.weather.gov/>
- National Hurricane Center — <http://www.nhc.noaa.gov/>
- Pacific Tsunami Warning Center — <http://ptwc.weather.gov/>
- Contact Us — <http://www.nauticalcharts.noaa.gov/staff/contact.htm>



— For the latest news from Coast Survey, follow @nauticalcharts



This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.

