

BookletChart™

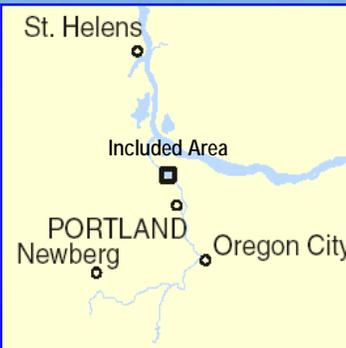
Willamette River – Swan Island Basin

NOAA Chart 18527

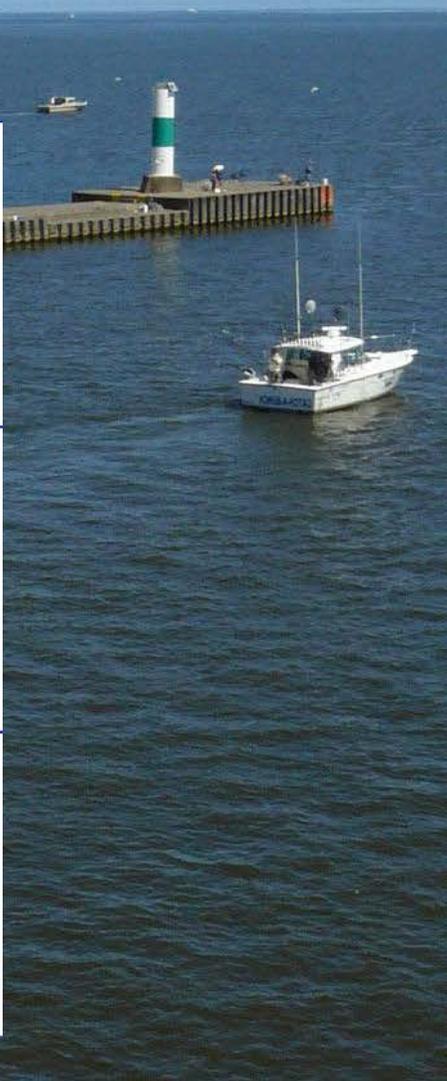
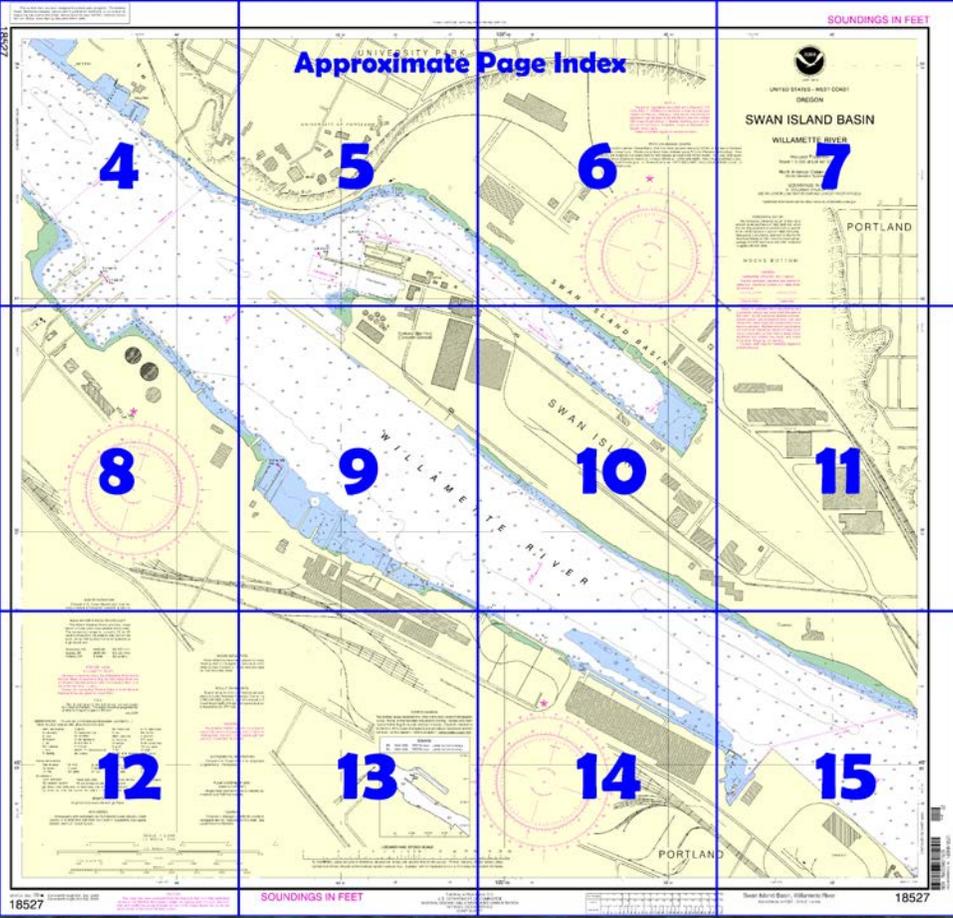


A reduced-scale NOAA nautical chart for small boaters

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.

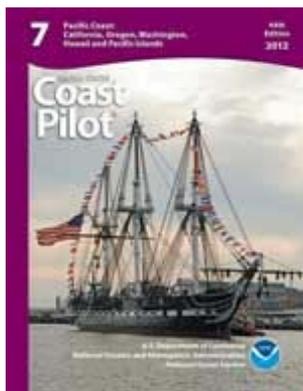
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

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=18527>.



(Selected Excerpts from Coast Pilot)
At Mile 88 (101.2), Columbia River is joined by **Willamette River**, its largest tributary below the Cascade Mountains.
Kelley Point Junction Light (45°39'11"N., 122°45'46"W.), 39 feet above the water, is shown from a pile structure with a red and green triangular daymark on the end of the dike extending from **Kelley Point** on the E side of the entrance to the river.
Columbia Slough, a narrow back channel roughly parallel to Columbia

River, empties into the Willamette about 0.4 (0.5) mile above its mouth. Least depth in the slough is usually less than 2 feet. A dam has been constructed across the slough about 7.3 miles above the mouth. In the vicinity of **Post Office Bar Range**, 2 (2.4) miles above the mouth of Willamette River, deep-draft vessels favor the W side of the river, while smaller vessels and tows prefer the E side because of lesser current. **Portland**, on Willamette River about 9 (10.4) miles from its mouth, is one of the major ports on the Pacific coast. The port has several deep-draft piers and wharves on both sides of the Willamette River between its junction with the Columbia and Ross Island. In addition there are extensive facilities for small vessels and barges S of Hawthorne Bridge and at North Portland Harbor, S of Hayden Island. The **Port of Portland** created by the State in 1891, is controlled by a Port Commission and administered by an executive director. The port owns several marine terminals, Port of Portland Ship Repair Yard, and dredges the channel between Broadway and Ross Island Bridges; it also assists the Corps of Engineers with other dredging in the Willamette and Columbia Rivers.

Vessel Arrival Reports.—The Washington State Department of Ecology requires that all tank vessels, and certain cargo and passenger vessels, submit an Advanced Notice of Entry (ANE) Report at least 24 hours prior to entering Washington waters.

A Safety Report must be submitted with an Advance Notice of Entry, or, if the condition occurs after submittal of an ANE the Department must be notified immediately by phone or facsimile of the condition. To inquire or submit vessel information, vessel owners or operators may contact the Washington State Department of Ecology by calling 24 hours, 503-790-4868 (Columbia River and Grays Harbor) or 360-956-8378 (Strait of Juan de Fuca and Puget Sound). Facsimile Safety Reports should be sent to 1-800-664-9184 or 360-407-7288.

Cargo, passenger, fishing and tank vessels are subject to boarding by Washington State Department of Ecology inspectors when in port. Tank vessels are required to have a Tank Vessel Oil Spill Prevention Plan on file with Ecology or must obtain a waiver prior to entering Washington State waters. Washington State also has safe bunkering procedures that must be followed during fuel transfers. For more information contact Ecology by calling 24 hours, 503-790-4868 (Columbia River and Grays Harbor) or 360-956-8378 (Strait of Juan de Fuca and Puget Sound). **To report oil spills call 1-800-258-5990.**

Anchorage.—The anchorage areas that are generally used in the Columbia River are Kelley Point Anchorage, E of Kelley Point and on the SW side of Vancouver Lower Channel and Hayden Island Anchorage, between the N end of Hayden Island and Vancouver Range (See **110.1** and **110.228**, chapter 2, for limits and regulations.) Hayden Island anchorage has two anchor buoys for use by bulk carriers/large vessels. In 2004, an anchor was reported to have been lost in Hayden Island Anchorage in about 45°38'32"N., 122°44'01"W.

A **special anchorage** in the Columbia River is between Tri-Club Island (Sand Island) and Lemon Island about 6.5 miles above the railroad bridge. (See **110.1** and **110.128**, chapter 2, for limits and regulations.)

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 Jun. 23/12
Corrected through LNM Jun. 12/12

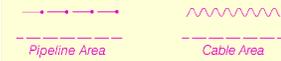
HEIGHTS

Heights in feet above Mean High Water.

CAUTION

SUBMARINE PIPELINES AND CABLES

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



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.

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 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.576' southward and 4.354' westward to agree with this chart.

CAUTION

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

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8902 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

CAUTION

Numerous obstructions found in 2009, consisting mainly of submerged snags and ruined piles, are not charted in the Willamette River and Swan Island Basin. These obstructions do not present a hazard to surface navigation, but should be taken into consideration for ground fishing and anchoring.

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.

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.

AIDS TO NAVIGATION

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

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.

Woodland, WA	WNG-604	162.525 MHz
Astoria, OR	WNG-697	162.525 MHz
Portland, OR	KIG-98	162.550 MHz

STATUTE MILES

WILLAMETTE RIVER

Mileage distances along the Willamette River are in Statute Miles. Distances along the Willamette River are southward from the junction with the Columbia River and are indicated thus: —◆—

Tables for converting Statute Miles to International Nautical Miles are given in Coast Pilot 7.

TIDES

The diurnal range of the tide during low river stages is 2.4 feet at Portland (45°31'N., 122°40'W.). The range becomes progressively smaller with higher stages of the river.
May 2012

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.

AUTHORITIES

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

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.

Mercator Projection
Scale 1:5,000 at Lat 45° 33' 30"

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT COLUMBIA RIVER DATUM
(MEAN LOWER LOW WATER DURING LOWEST RIVER STAGES)

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	VO 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:

Bds 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:

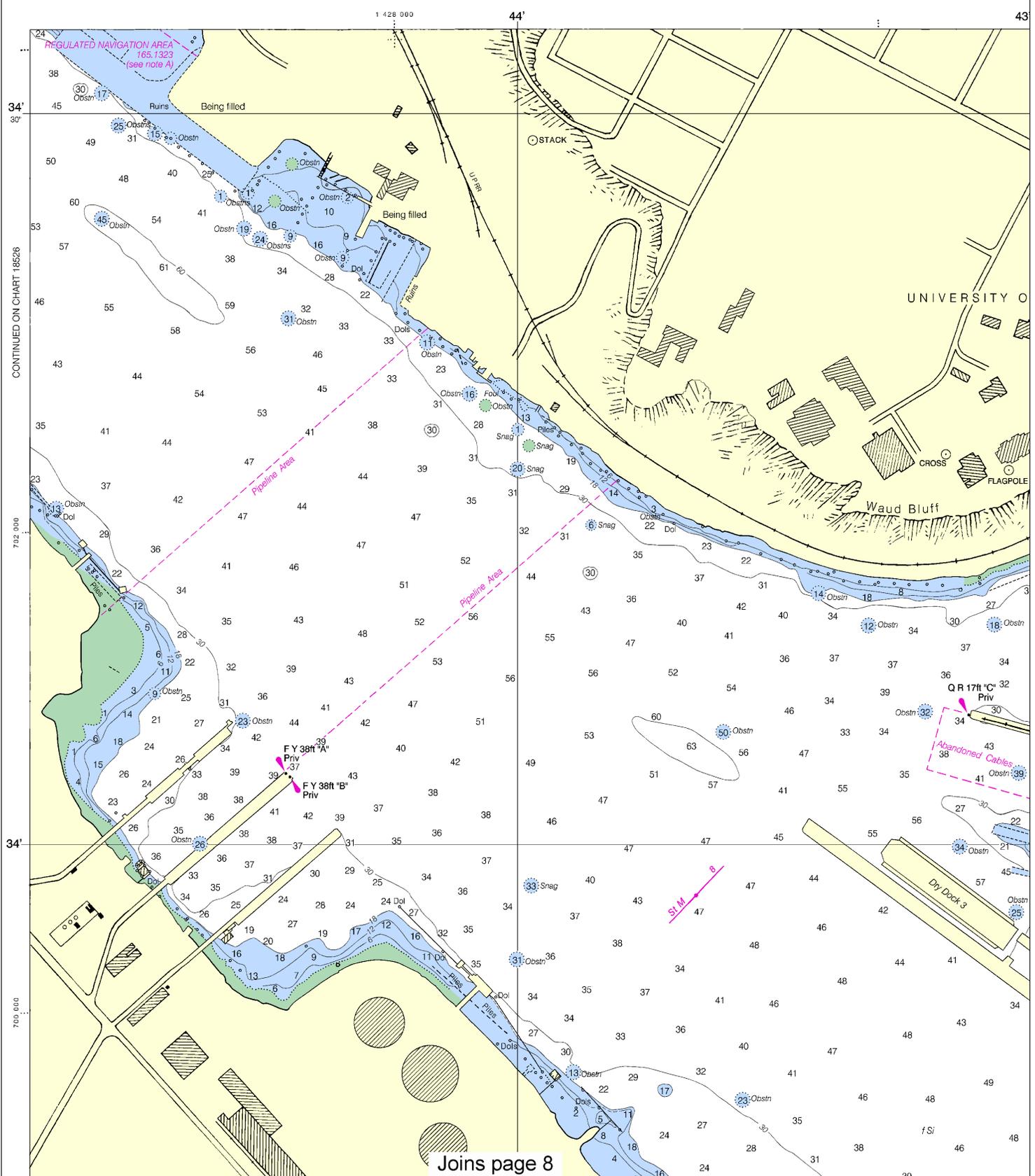
AUTH authorized	Obstr obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rep reported	

⚡ 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.

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.

18527



4

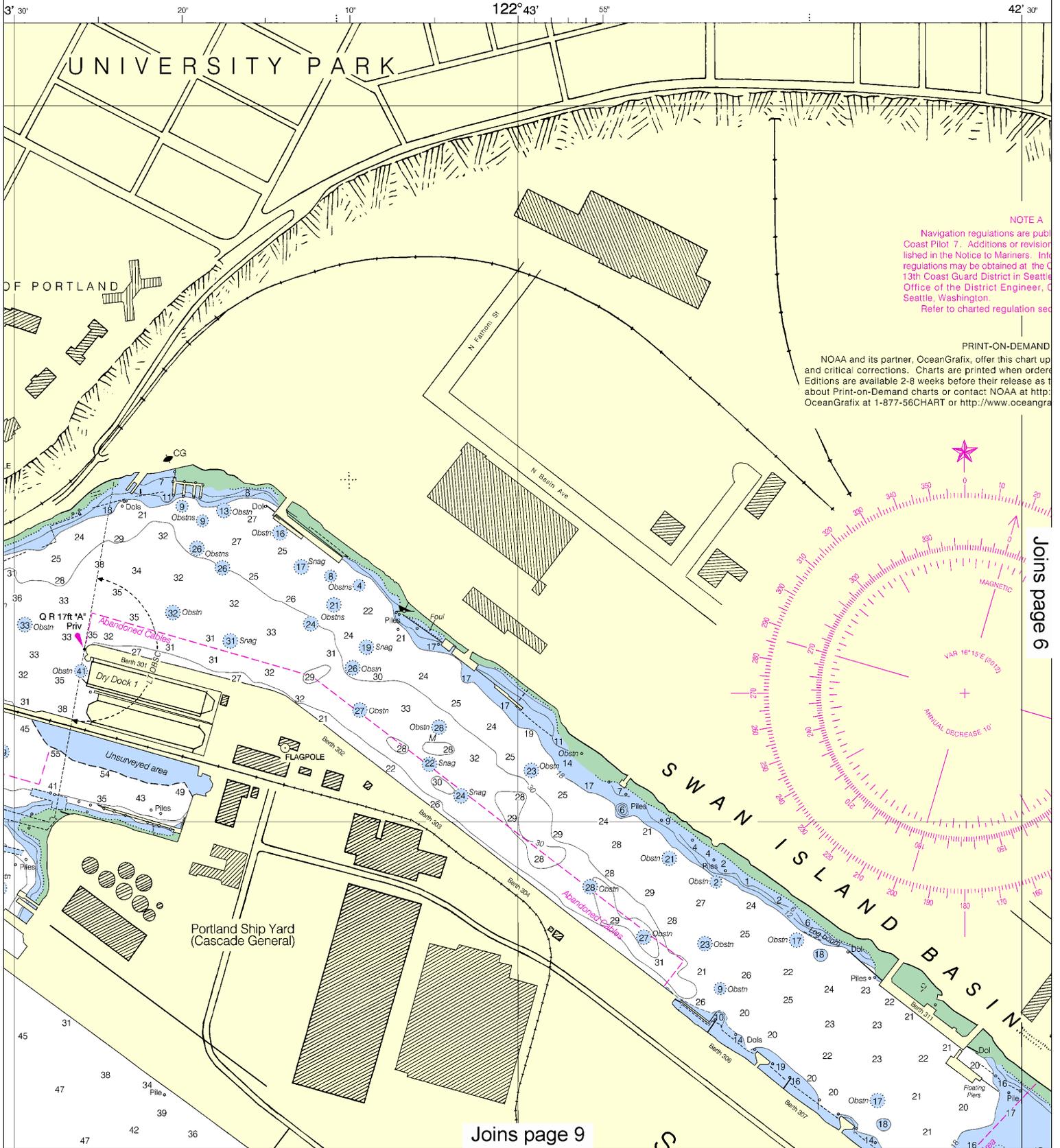
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:5,000
0.5 Nautical Miles

See Note on page 5.





NOTE A

Navigation regulations are published in Coast Pilot 7. Additions or revisions to regulations may be obtained at the Office of the District Engineer, Seattle, Washington. Refer to charted regulation section.

PRINT-ON-DEMAND

NOAA and its partner, OceanGrafix, offer this chart up and critical corrections. Charts are printed when orders are received. Editions are available 2-8 weeks before their release as to about Print-on-Demand charts or contact NOAA at http://www.oceangrafix.com or 1-877-56CHART.

This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:6667. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.

43° 30'

20'

10'

122° 43'

55'

UNIVERSITY PARK

UNIVERSITY OF PORTLAND

Waud Bluff

CROSS

FLAGPOLE

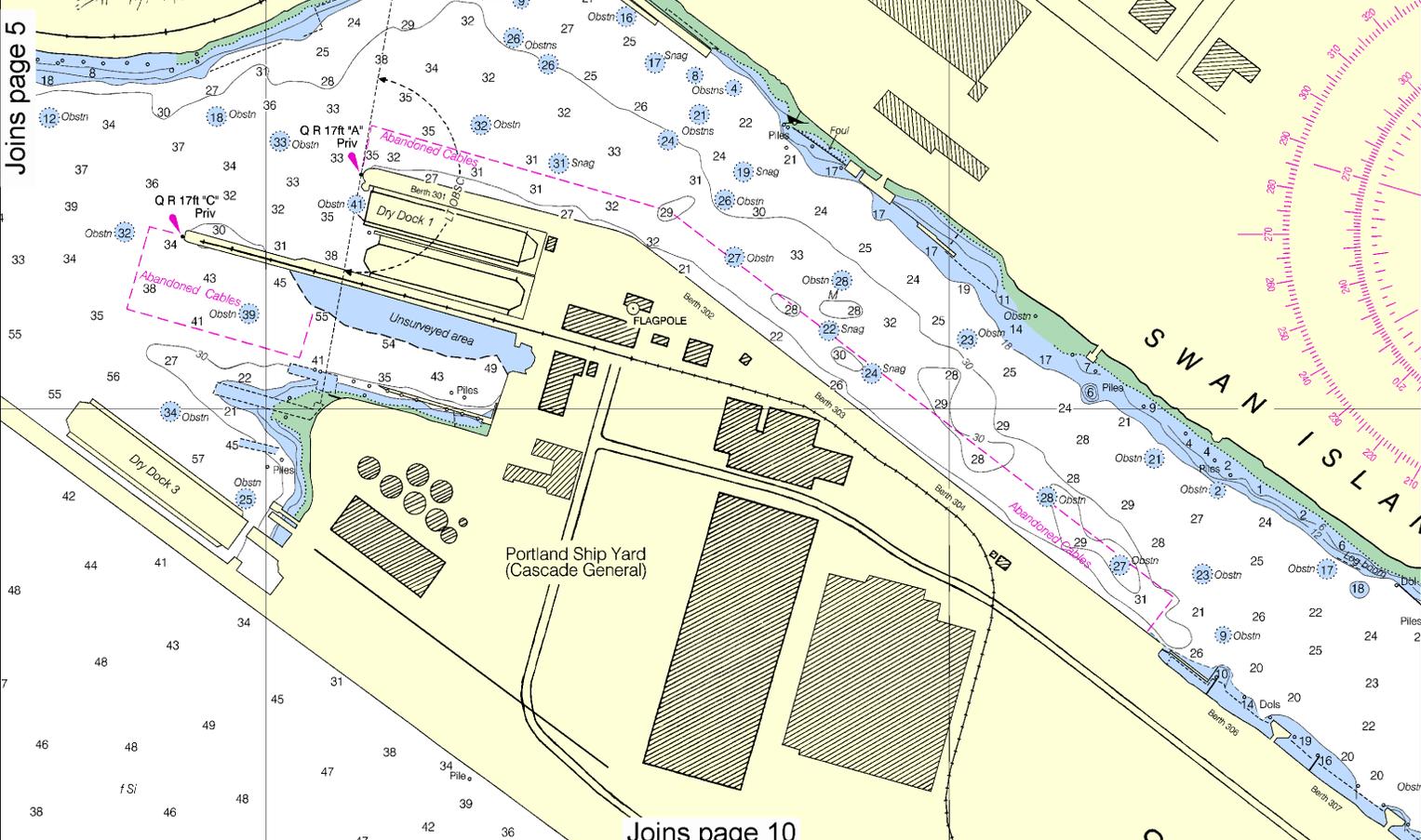
OG

N. Fairview St

N. Basin Ave

NOAA and critical editions are about Print-on-OceanGrafix a

Joins page 5



Joins page 10



Note: Chart grid lines are aligned with true north.

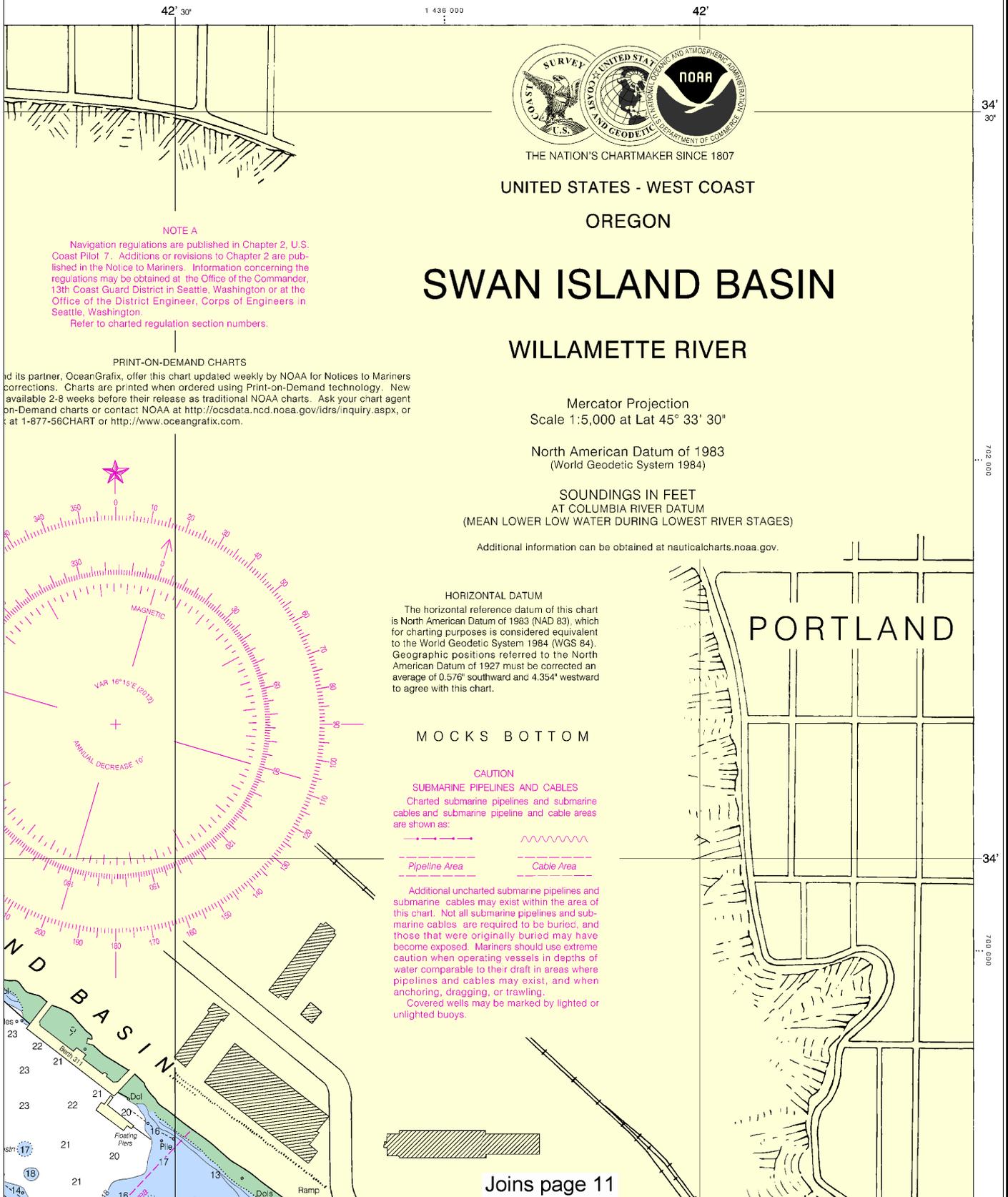
Printed at reduced scale.

SCALE 1:5,000
0.5 Nautical Miles

See Note on page 5.



SOUNDINGS IN FEET



THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES - WEST COAST
OREGON

SWAN ISLAND BASIN

WILLAMETTE RIVER

Mercator Projection
Scale 1:5,000 at Lat 45° 33' 30"

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT COLUMBIA RIVER DATUM
(MEAN LOWER LOW WATER DURING LOWEST RIVER STAGES)

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

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 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.576" southward and 4.354" westward to agree with this chart.

MOCKS BOTTOM

CAUTION

SUBMARINE PIPELINES AND CABLES
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:



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.

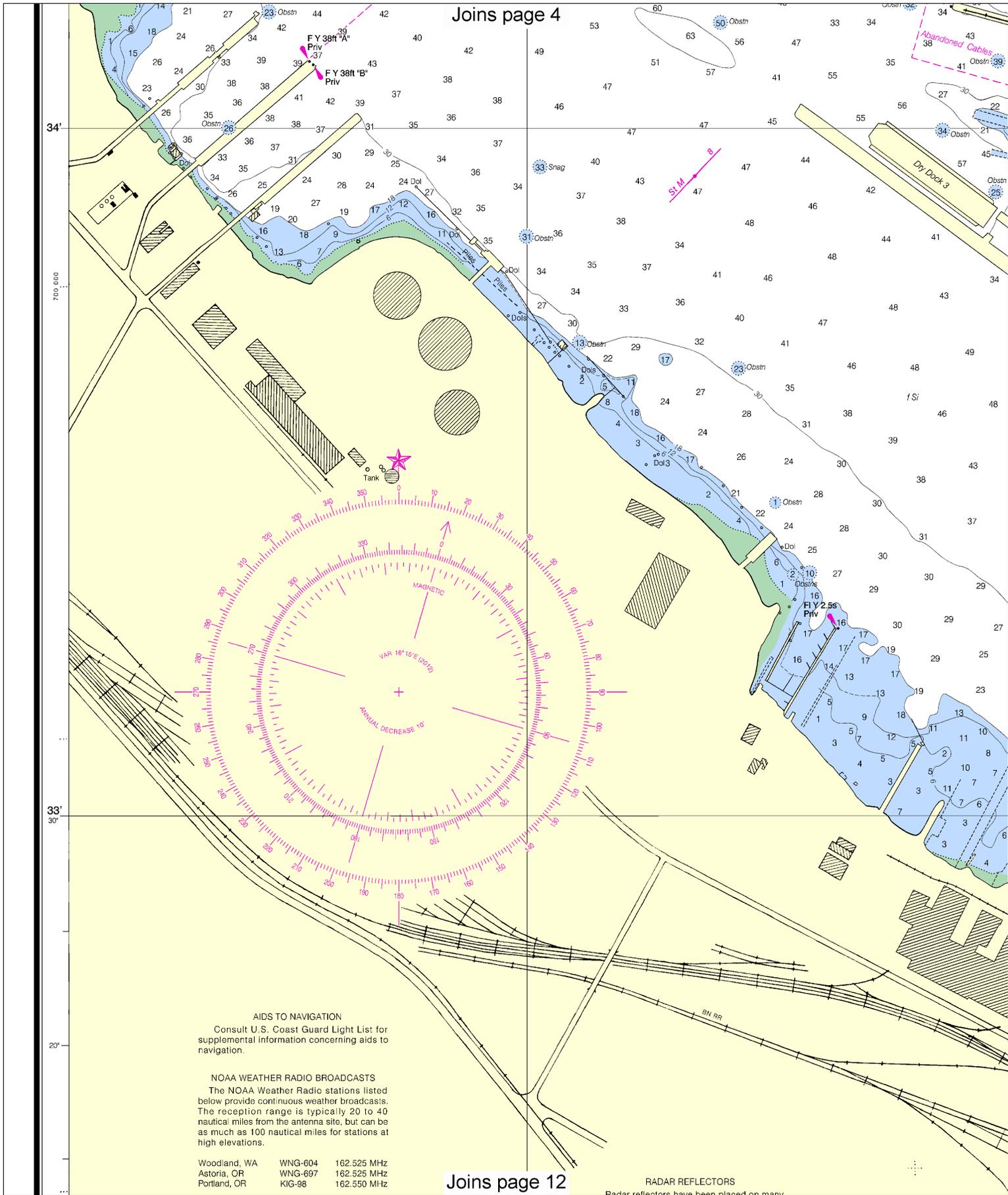
Joins page 11

NOTE A

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Refer to charted regulation section numbers.

PRINT-ON-DEMAND CHARTS

With its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners corrections. Charts are printed when ordered using Print-on-Demand technology. New available 2-8 weeks before their release as traditional NOAA charts. Ask your chart agent on-Demand charts or contact NOAA at <http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx>, or at 1-877-56CHART or <http://www.oceangrafix.com>.



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

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.

Woodland, WA	WNG-604	162.525 MHz
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RADAR REFLECTORS
 Radar reflectors have been placed on many



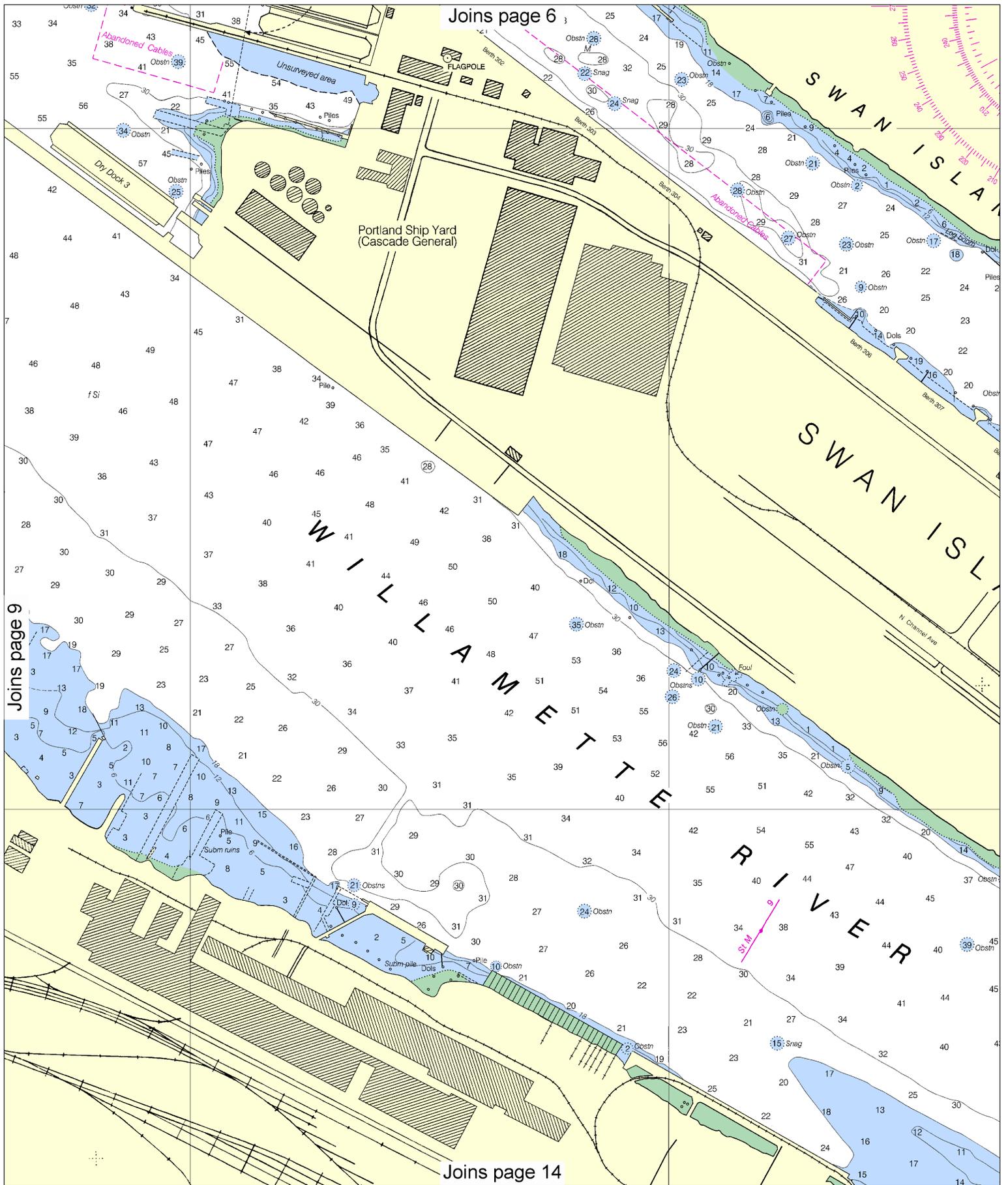
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:5,000
 0.5 Nautical Miles

See Note on page 5.





10

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:5,000
0.5 Nautical Miles

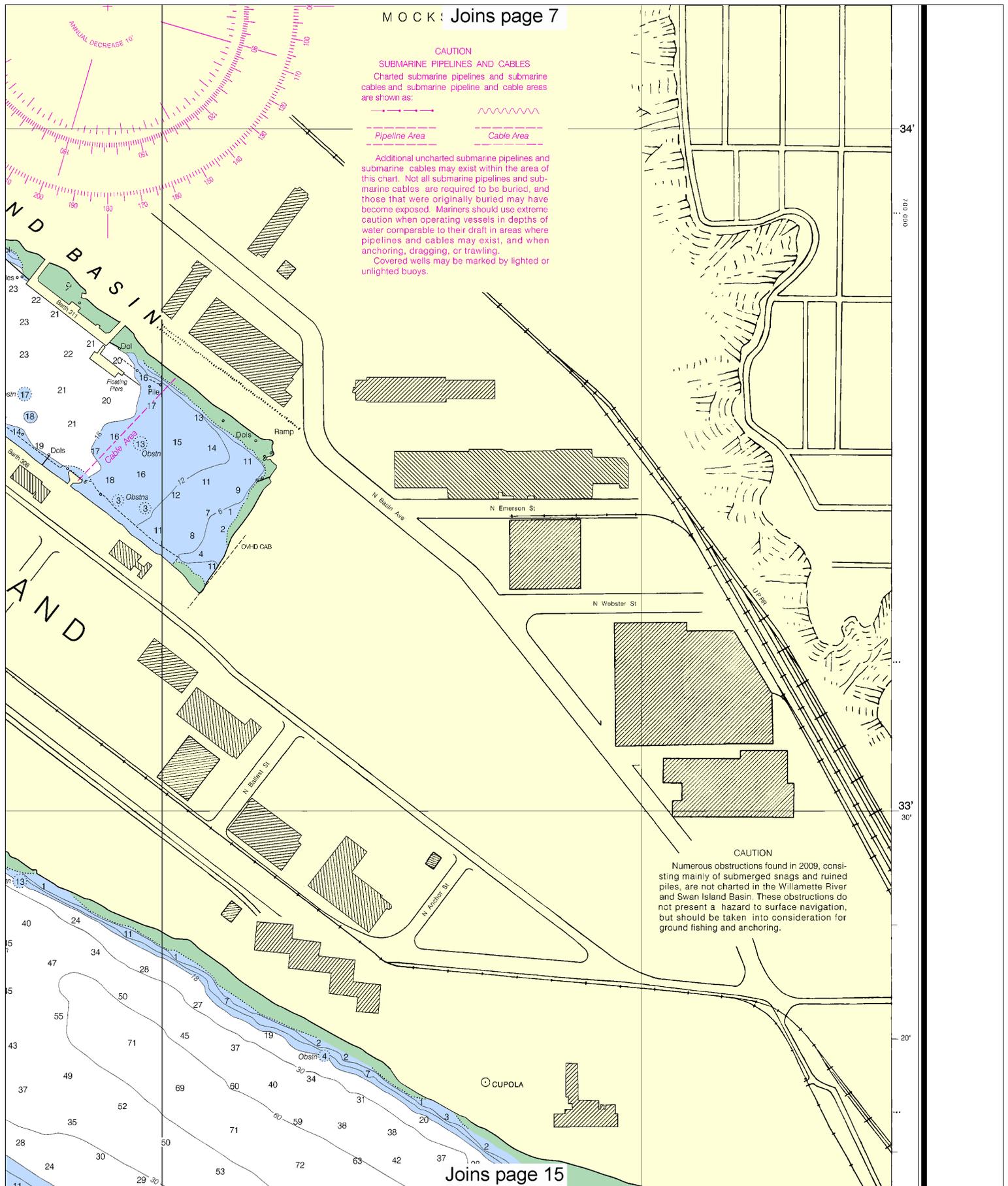
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CAUTION
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33' 30"
20'
10'
45° 33'
55'
684,000
44'
43'

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TIDES
The diurnal range of the tide during low river stages is 2.4 feet at Portland (45°31'N., 122°40'W.). The range becomes progressively smaller with higher stages of the river. May 2012

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	WHS whistle
		R Bn radiobeacon	Y yellow

Bottom characteristics:

Bids 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	Obstr obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rep reported	

⚠ 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, Geological Survey, and U.S. Coast Guard.

RADAR REFLECTORS
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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).

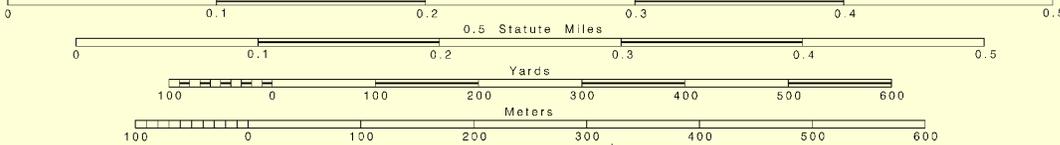
WARNING
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SUPPLEMENTAL INFORMATION
Consult U.S. Coast Pilot 7 for important supplemental information.

PLANE COORDINATE GRID
(based on NAD 1927)
Oregon State Grid North Zone is indicated by dotted ticks at 2000 foot intervals.

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

SCALE 1:5,000
0.5 Nautical Miles



To find SPEED, place right point on 60 and 1

23rd Ed., Jun. / 12 ■ Corrected through NM Jun. 23/12
Corrected through LNM Jun. 12/12

18527

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.

SOUNDING

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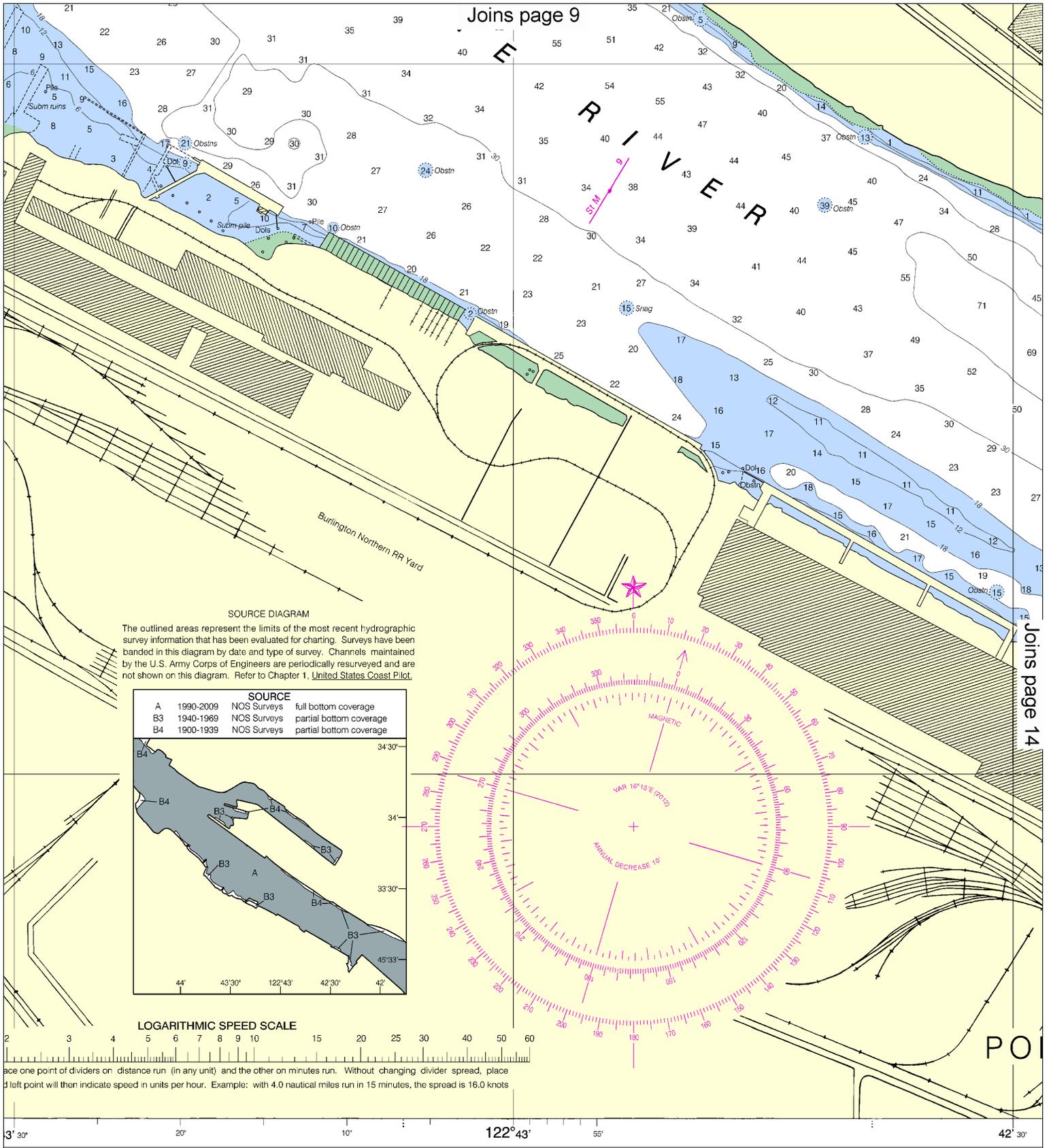
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:5,000
0.5 Nautical Miles

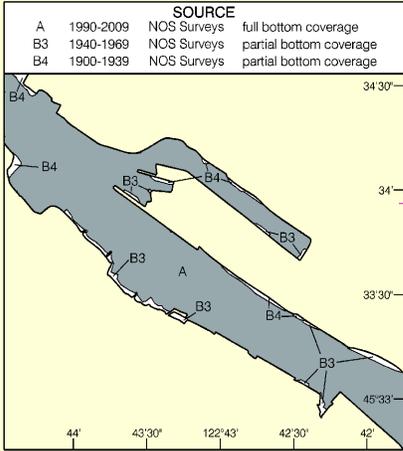
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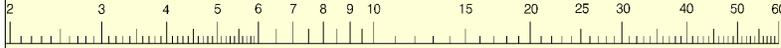


SOURCE DIAGRAM

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*.



LOGARITHMIC SPEED SCALE

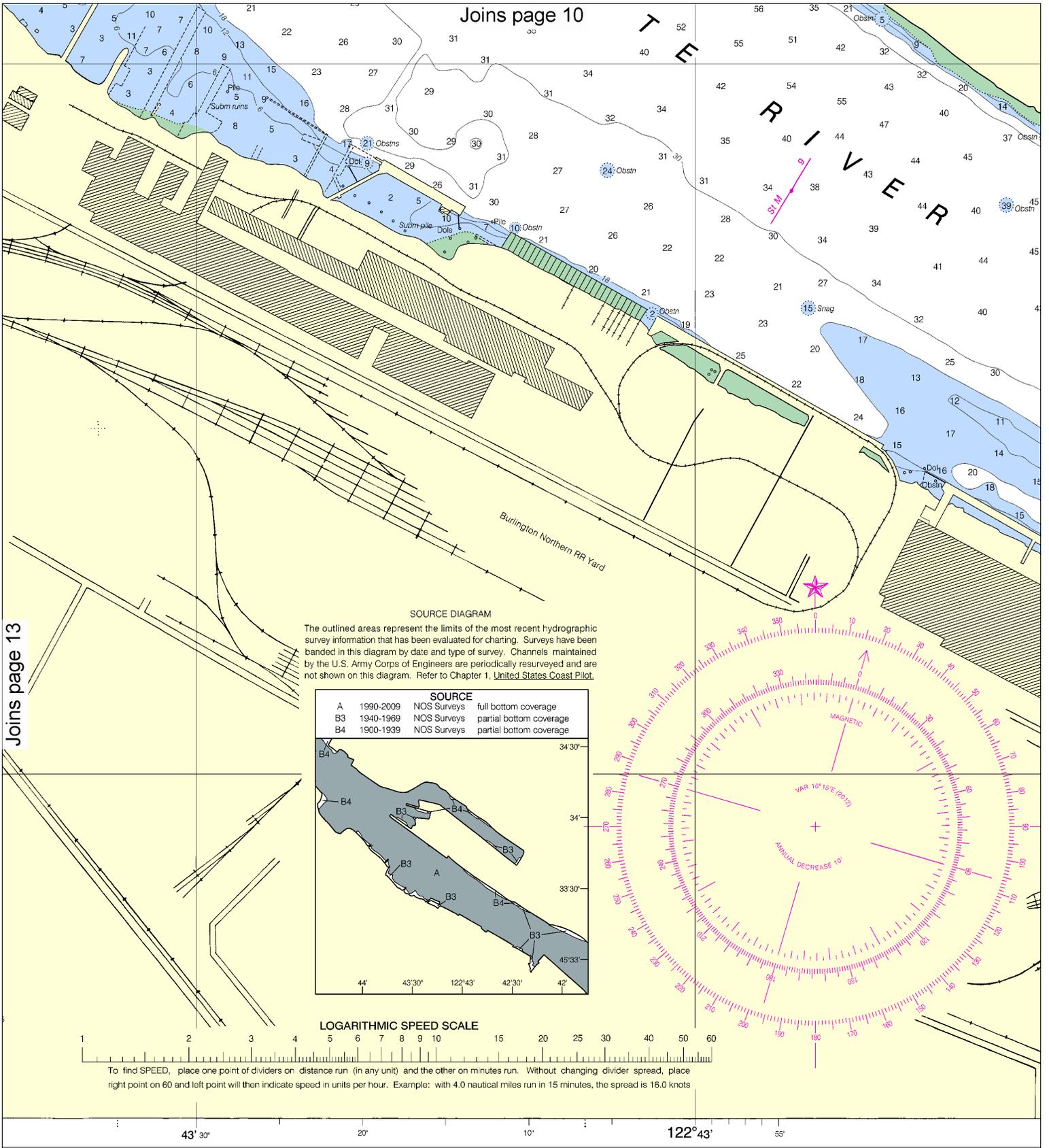


Place one point of dividers on distance run (in any unit) and the other on minutes run. Without changing divider spread, place left point will then indicate speed in units per hour. Example: with 4.0 nautical miles run in 15 minutes, the spread is 16.0 knots

NGS IN FEET

Published at Washington, D.C.
 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
FEET	6	12	18	24	30	36	42	48	54	60
METERS	1	2	3	4	5	6	7	8	9	10



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SOUNDINGS IN FEET

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

FATHOMS	1	2
FEET	6	12
METERS	1	3

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:5,000
 0.5 Nautical Miles

See Note on page 5.





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>



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