

BookletChart™

Yaquina Head to Columbia River

NOAA Chart 18520

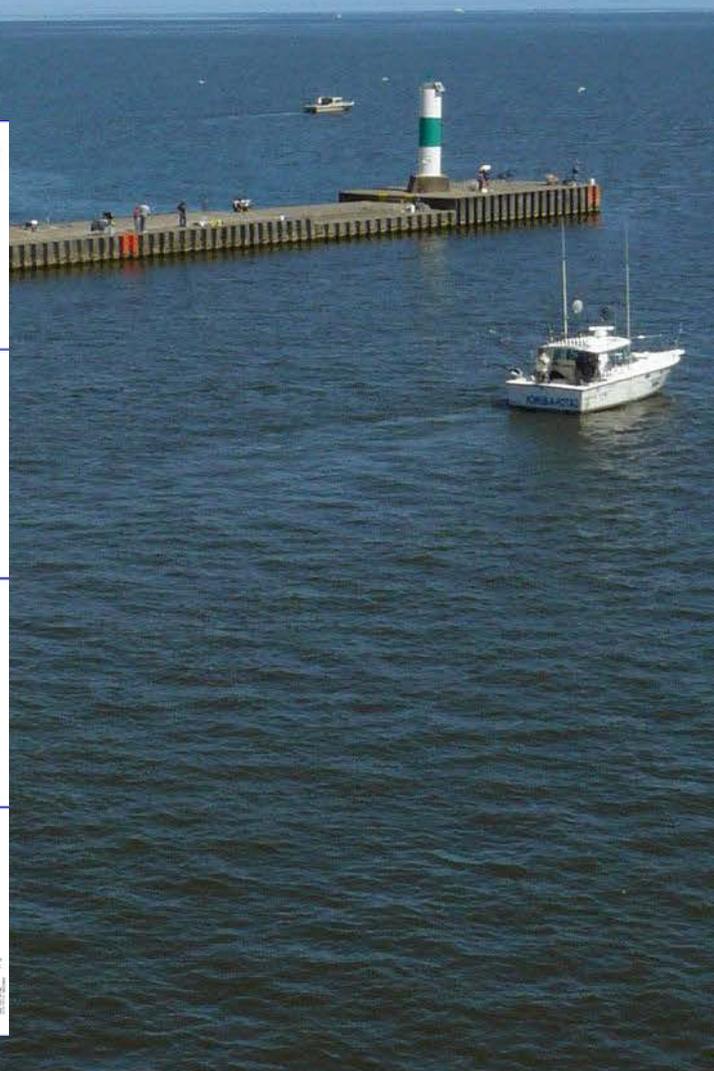
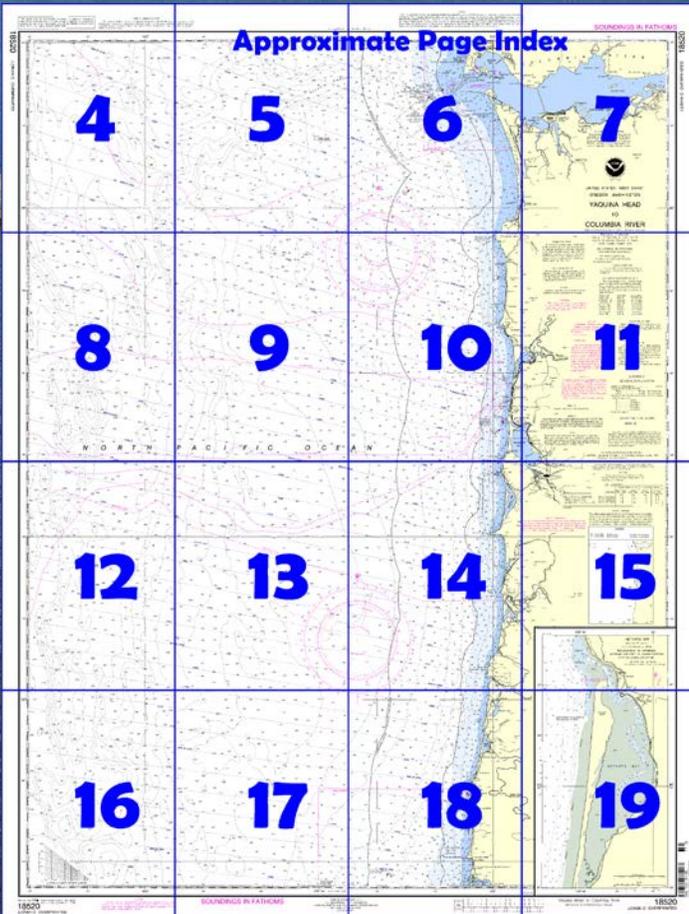


A reduced-scale NOAA nautical chart for small boaters

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.

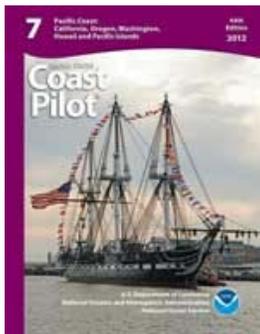
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

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=18520>.



(Selected Excerpts from Coast Pilot)

From Yaquina Head to the mouth of Columbia River, the coast is fairly straight. The headlands are Cape Foulweather, Cascade Head, Cape Lookout, Cape Meares, Cape Falcon, and Tillamook Head. The 30-fathom curve follows the general trend of the coast about 3.5 miles offshore, without indicating the several headlands. When about opposite Tillamook Head, the curve swings W and is about 7.5 miles off the end of Clatsop Spit.

The entrance to **Siletz Bay** is 15 miles N of Yaquina Head. The entrance channel is subject to frequent change, and drafts of 4 or 5 feet are considered the deepest that can be safely taken in at high water.

Neskowin Rock, at the high-water line about 0.3 mile N of the N extremity of the cliffs marking Cascade Head, rises abruptly from the sand beach to 113 feet in height. The rock is dark brown and wooded on top.

N of Neskowin Rock the Oregon Coast Highway is about 0.5 mile inland. At night the headlights of automobiles traveling this road cause intermittent flashes as they make the turns and might be mistaken for lights of vessels.

Nestucca River empties into **Nestucca Bay** 5.5 miles N of Cascade Head. The channel over the bar changes frequently in position and depth, and only light-draft vessels having local knowledge are able to cross. N of Cape Lookout for 4.5 miles, the land falls to a low narrow sandy peninsula, separating Netarts Bay from the ocean. The sand dunes on the peninsula are visible for 10 or 12 miles.

Netarts Bay is a shallow lagoon most of which is bare at low water. The village of **Netarts** is on the N shore a mile inside the entrance. Only light-draft boats with local knowledge can enter.

From Tillamook Bay to Nehalem River, the coast is nearly straight for about 5 miles. Several lakes in this stretch are separated from the beach by wooded sand dunes. The heavily wooded hills begin to rise 0.5 mile to 0.8 mile from the beach and in 1 mile reach elevations of 1,000 to 1,600 feet.

Twin Rocks are 700 yards offshore and 2 miles N of the entrance to Tillamook Bay. Their bases are so close together that they usually look like one rock. The S and larger has an arch in it.

Smuggler Cove, a small bight just S of Cape Falcon, is an excellent anchorage for small boats. The best anchorage is close to the N shore in 4 to 5 fathoms, protected from all except SW winds. Care should be taken to avoid two rocks, bare at extreme low water, that are about 150 yards from the N shore of the cove and rise abruptly from deep water. In July 1983, a sunken crane barge with 30 feet over it was reported about 0.8 mile S of Cape Falcon in about 45°44.9'N., 123°58.6'W.

Caution.—The volcanic eruptions of Mount Saint Helens in mid-1980 caused extensive flooding with resulting heavy siltation in the lower Columbia River. Large amounts of mud, logs, and other debris entered Columbia River from Cowlitz River, just E of Longview at Mile 59 (68). In late 1980, dredging was done in the aforementioned area, however, mariners are advised to use caution in the Columbia River and its tributaries. Self-propelled hopper dredges, dredge barges and pipeline dredges may be encountered throughout the transit from sea to Bonneville Dam. Mariners should contact these vessels on VHF-FM channel 13 to make passing arrangements, and navigate with due caution through these areas.

Rice Island, Miller Sands, Jim Crow Sands and Cottonwood Islands are used for dredging disposal sites. Elevations of these islands constantly change, as well as the overall shape and dimensions.

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

RCC Seattle

Commander
13th CG District
Seattle, WA

(206) 220-7001

Table of Selected Chart Notes

Corrected through NM May 16/09
Corrected through LNM May 12/09

HEIGHTS

Heights in feet above Mean High Water.

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:

○ (Accurate location) ○ (Approximate location)

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.

NETARTS BAY ENTRANCE

The channel is subject to continual change.

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.

CAUTION

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

For Symbols and Abbreviations see Chart No. 1

NOTE S

Regulations for Ocean Dumping Sites are contained in 40 CFR, Parts 220-229. Additional information concerning the regulations and requirements for use of the sites may be obtained from the Environmental Protection Agency (EPA). See U.S. Coast Pilots appendix for addresses of EPA offices. Dumping subsequent to the survey dates may have reduced the depths shown.

NOTE B

COLUMBIA RIVER ENTRANCE

The project depth is 48 feet. Controlling depths are published monthly in the Local Notice to Mariners by the U.S. Coast Guard and monthly in the National Geospatial-Intelligence Agency Notice to Mariners. Additional information may be obtained from the Corps of Engineers, U.S. Army, Portland, Oregon.

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	WNG-697	162.525 MHz
Astoria, WA	KEC-91	162.40 MHz
Neahaknie, OR	WWF-94	162.425 MHz
Tillamook, OR	WWF-95	162.475 MHz
Eugene, OR	KEC-42	162.40 MHz
Newport, OR	KIH-33	162.55 MHz
Olympia, WA	WXM-62	162.475 MHz
Portland, OR	KIG-98	162.55 MHz
Salem, OR	WXL-96	162.475 MHz

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 0.617" southward and 4.476" westward to agree with this chart.

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).

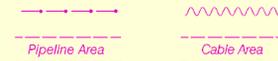
NOTE A

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 Portland, Oregon.
Refer to charted regulation section numbers.

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.

CAUTION

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

Mercator Projection
Scale 1:185,238 at Lat. 45°40'
North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FATHOMS AT MEAN LOWER LOW WATER

NOTE C

Three Arch Rocks National Wildlife Refuge. 8 Informational/Regulatory buoys are in the vicinity of 3-Arch rocks. The orange and white buoys display the words 'AREA CLOSED' & symbol for exclusion area. All buoys are located within 500 feet of the rocks and will be seasonal from 15 April to 15 Sept.

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.

VESSEL TRANSITING

The U.S. Coast Guard and the Pacific States/British Columbia Oil Spill Task Force endorse a system of voluntary measures and minimum distances from shore for certain commercial vessels transiting along the coast anywhere between Cook Inlet, Alaska and San Diego, California. See U.S. Coast Pilot, 7, Chapter 3 for details.

COLREGS: International Regulations for Preventing Collisions at Sea, 1972.
Demarcation lines are shown thus: - - - - -

TIDAL INFORMATION

NAME	PLACE (LAT/LONG)	Height referred to datum of soundings (MLLW)		
		Mean Higher High Water	Mean High Water	Mean Low Water
Nestucca Bay entrance, Oregon	(45°10'N/123°58.02'W)	7.6	6.9	1.1
Garibaldi, Tillamook, Oregon (old)	(45°33.5'N/123°54.72'W)	7.8	7.1	1.2
Columbia River Entr. (N. Jetty), Wash.	(46°16.4'N/124°3.32'W)	7.5	6.8	1.2
Bar at entrance, Yaquina Bay, Oregon	(44°37'N/124°4.98'W)	7.9	7.2	1.3

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>.
(Apr 2009)

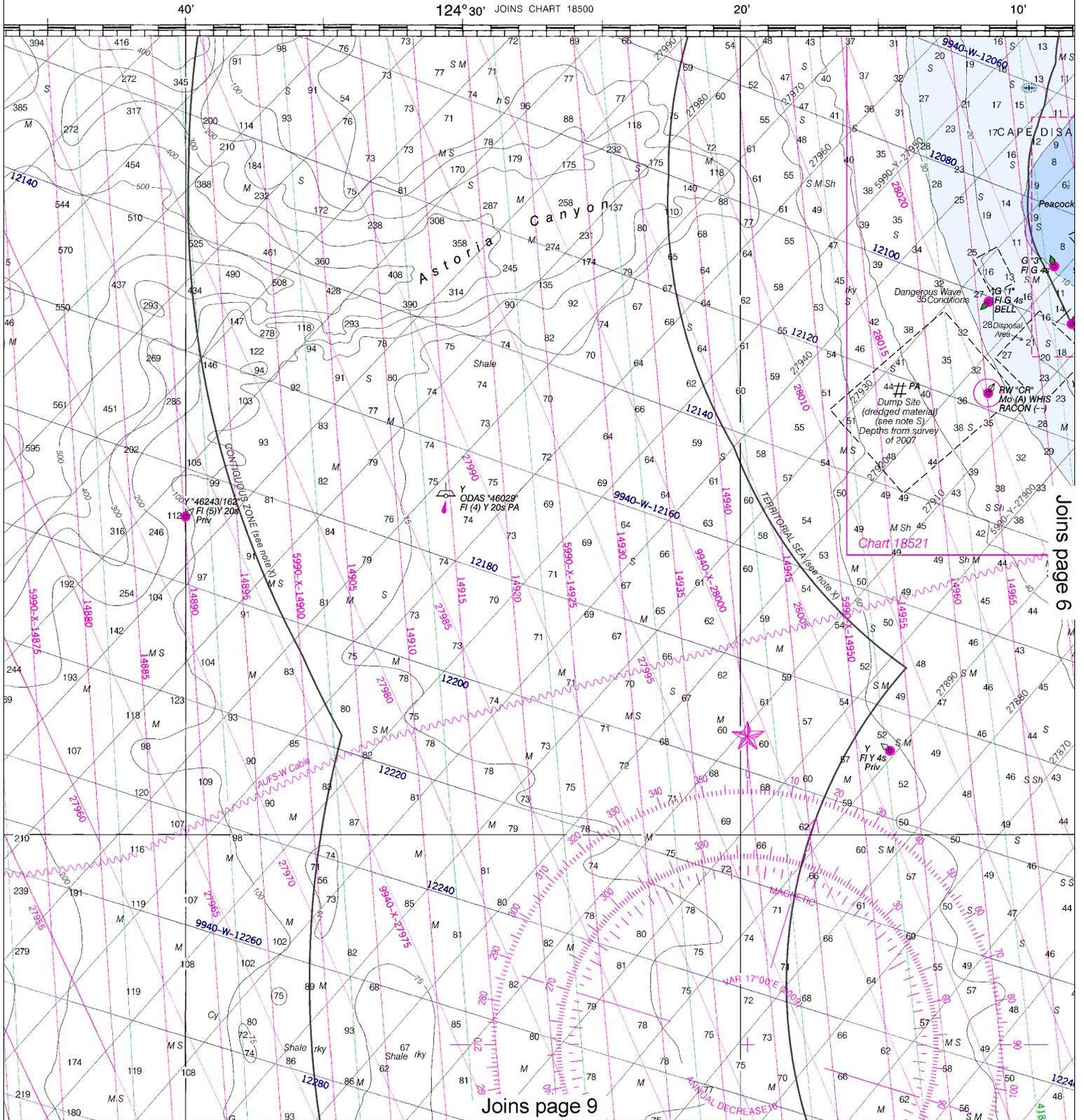
SOURCE DIAGRAM

NOTE X

Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. The Three Nautical Mile Line, previously identified as the outer limit of the territorial sea, is retained as it continues to depict the jurisdictional limit of the other laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast of Florida, Texas, and Puerto Rico, and the Three Nautical Mile Line elsewhere remain in most cases the inner limit of Federal fisheries jurisdiction and the outer limit of the jurisdiction of the states. The 24-nautical mile Contiguous Zone and the 200-nautical mile Exclusive Economic Zone were established by Presidential Proclamation. Unless fixed by treaty or the U.S. Supreme Court, these maritime limits are subject to modification.

Within the 12-nautical mile Territorial Sea, establish previously identified as the outer limit of the territorial 9-nautical mile Natural Resource Boundary off the Gulf of Mexico in most cases the inner limit of Federal fisheries jurisdiction and the 200-nautical mile Exclusive Economic Zone Supreme Court, there maritime limits are subject to m

Formerly C&GS 5902, 1st Ed., Nov. 1920 KAPP 1735

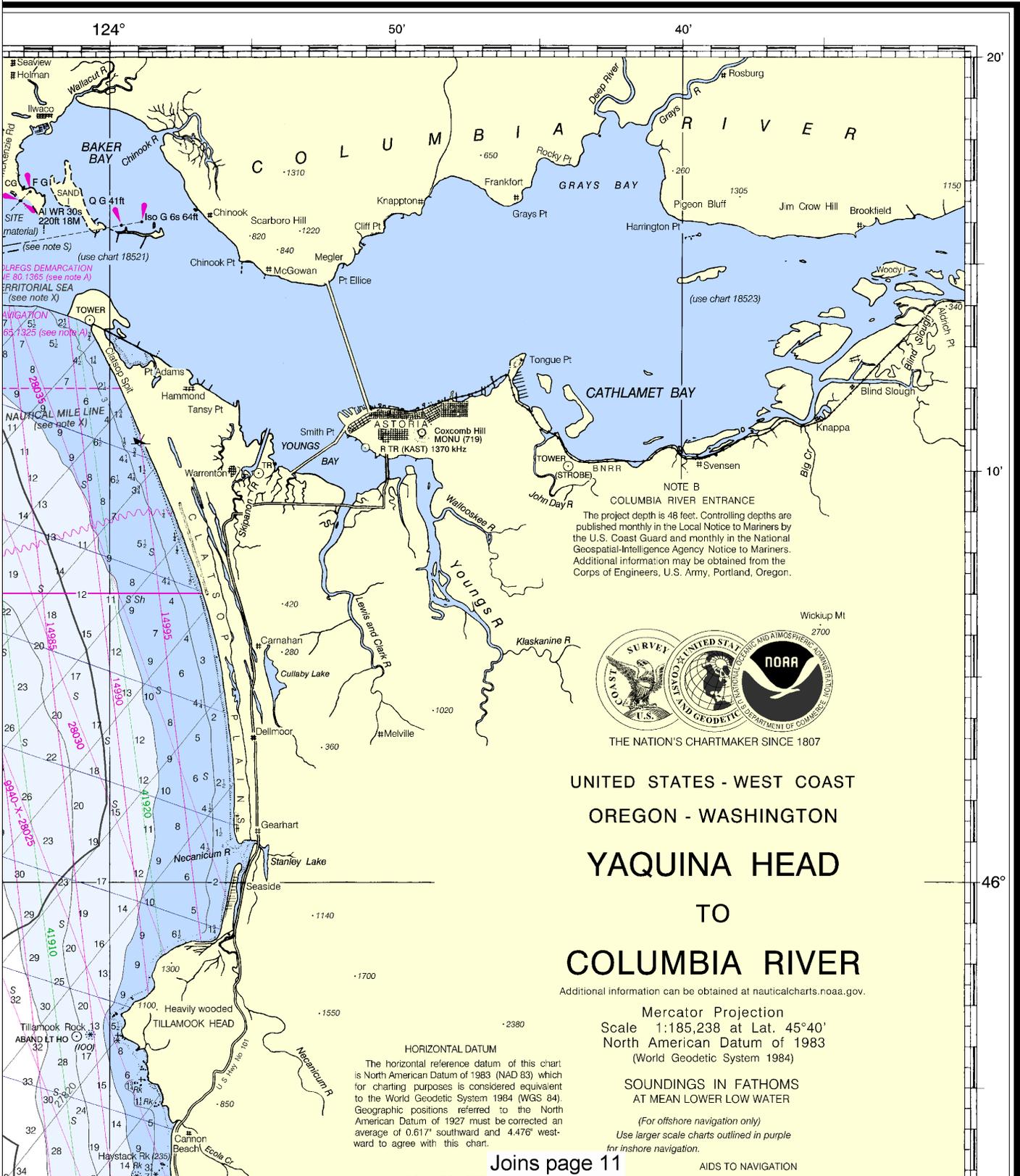


This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:246984. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.



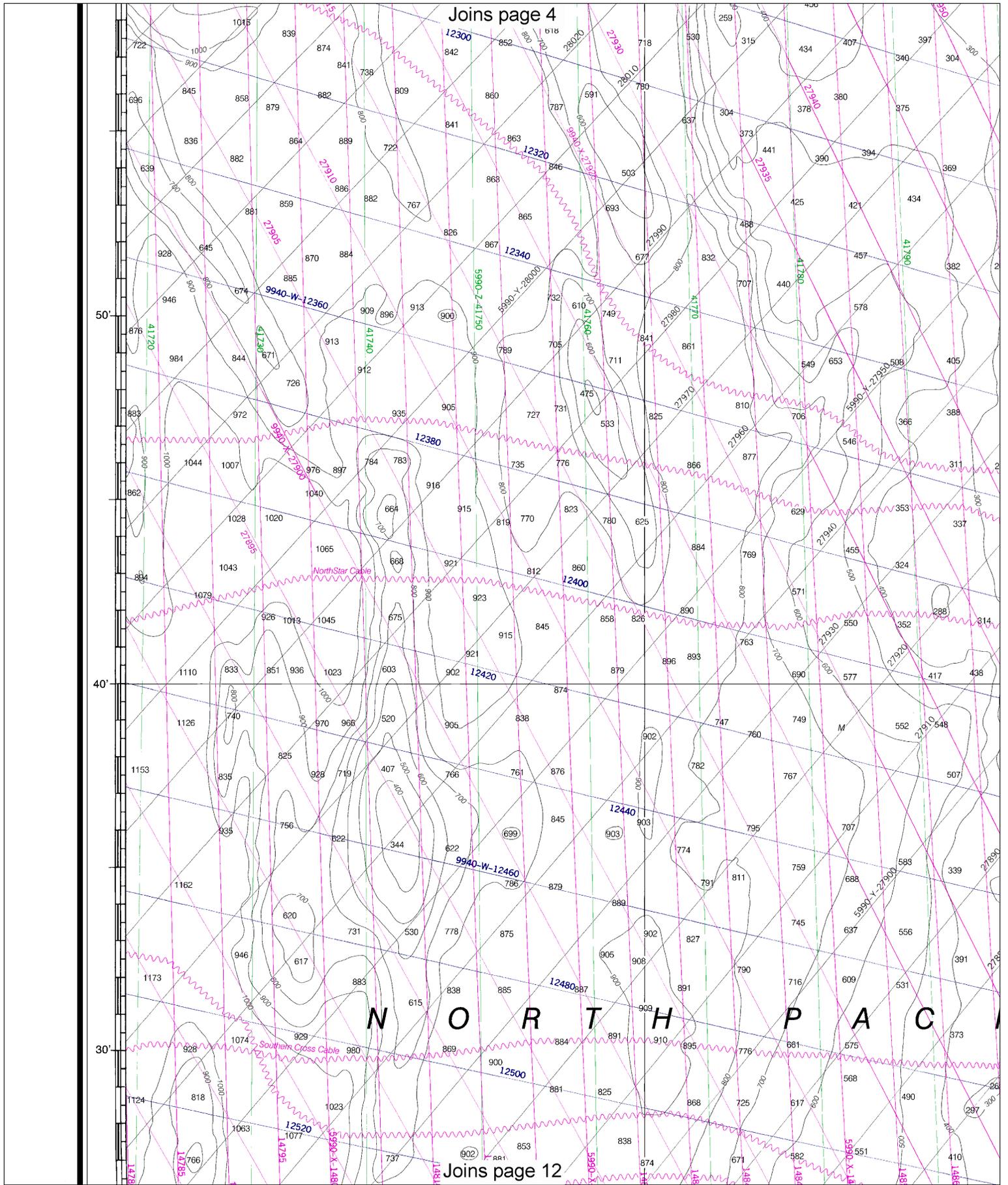
tion, some Federal laws apply. The Three Nautical Mile Line, lines to depict the jurisdictional limit of the other laws. The Puerto Rico, and the Three Nautical Mile Line elsewhere remain jurisdiction of the states. The 24-nautical mile Contiguous Territorial Proclamation. Unless fixed by treaty or the U.S.

SOUNDINGS IN FATHOMS

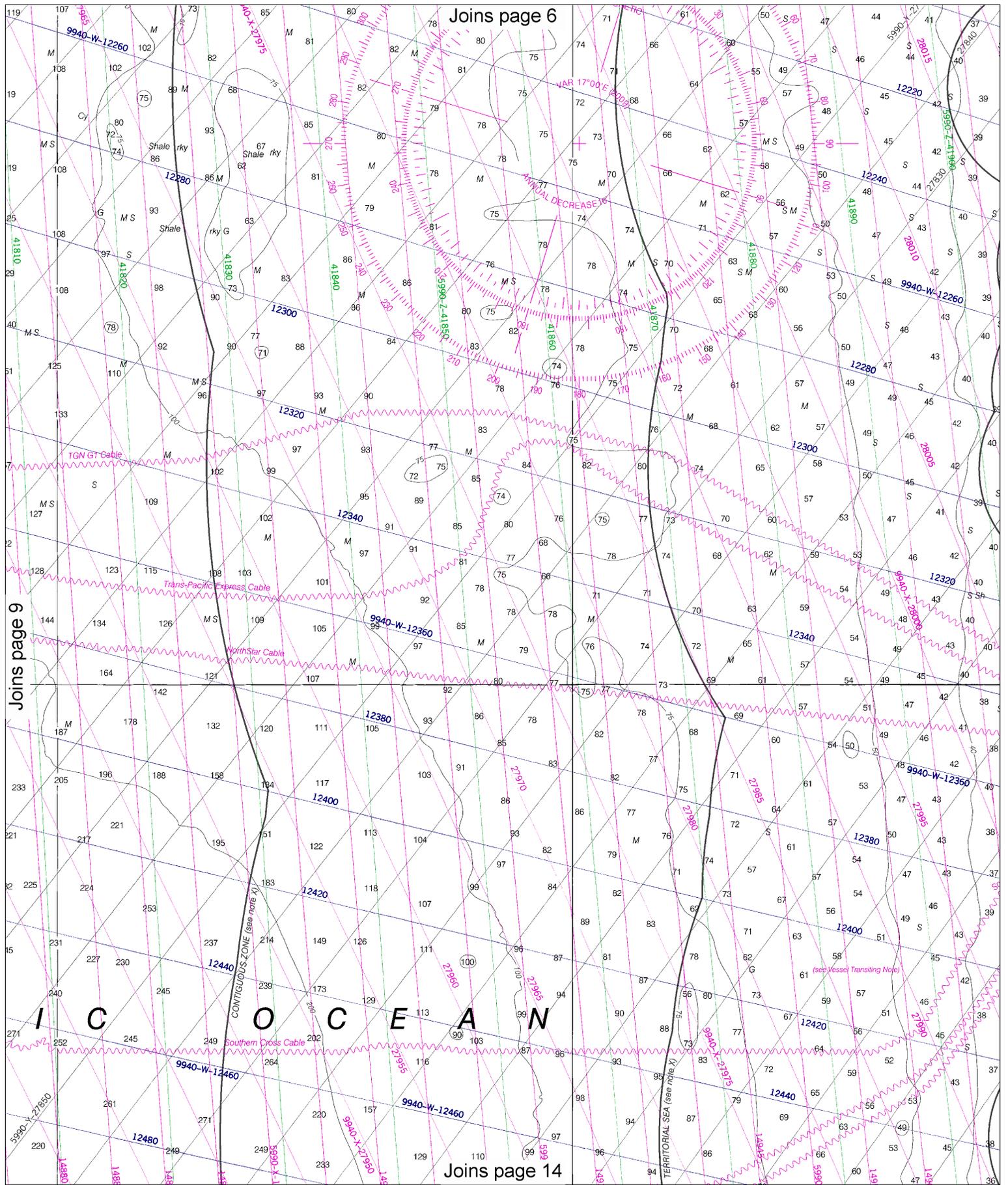


This BookletChart has been updated through: Coast Guard Local Notice To Mariners: 4812 11/27/2012,
 NGA Weekly Notice to Mariners: 4812 12/1/2012,
 Canadian Coast Guard Notice to Mariners: 0912 9/28/2012.





Note: Chart grid lines are aligned with true north.



10

Note: Chart grid lines are aligned with true north.

Joins page 7 CUMBIA RIVER

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

Mercator Projection
Scale 1:185,238 at Lat. 45°40'
North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FATHOMS
AT MEAN LOWER LOW WATER

(For offshore navigation only)

Use larger scale charts outlined in purple for inshore navigation.

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.

Astoria, OR	WNG-697	162.525 MHz
Astoria, WA	KEC-91	162.40 MHz
Neahaknie, OR	WWF-94	162.425 MHz
Tillamook, OR	WWF-95	162.475 MHz
Eugene, OR	KEC-42	162.40 MHz
Newport, OR	KIH-33	162.55 MHz
Olympia, WA	WXM-62	162.475 MHz
Portland, OR	KIG-98	162.55 MHz
Salem, OR	WXL-96	162.475 MHz

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.

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:

○ (Accurate location) ◊ (Approximate location)

LORAN-C

GENERAL EXPLANATION

LORAN-C FREQUENCY.....	100kHz
PULSE REPETITION INTERVAL	
9940.....	99,400 Microseconds
5990.....	59,900 Microseconds
STATION TYPE DESIGNATORS: (Not individual station letter designators).	
M.....	Master
W.....	Secondary
X.....	Secondary
Y.....	Secondary
Z.....	Secondary
EXAMPLE: 9940-X	

RATES ON THIS CHART

9940-W 9940-X
5990-X 5990-Y 5990-Z

Loran-C correction tables published by the National Geospatial-Intelligence Agency or others should not be used with this chart. The lines of position shown have been adjusted based on survey data. Every effort has been made to meet the 1/4 nautical mile accuracy criteria established by the U.S. Coast Guard. Mariners are cautioned not to rely solely on the lattices in inshore waters.

For Symbols and Abbreviations see Chart No. 1

COLREGS: International Regulations for Preventing Collisions at Sea, 1972.

Demarcation lines are shown thus: ---

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.

CAUTION

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

TIDAL INFORMATION

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 0.617" southward and 4.476" westward to agree with this chart.

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

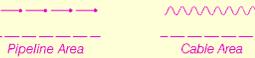
Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

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.

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.

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 Portland, Oregon.
Refer to charted regulation section numbers.

HEIGHTS

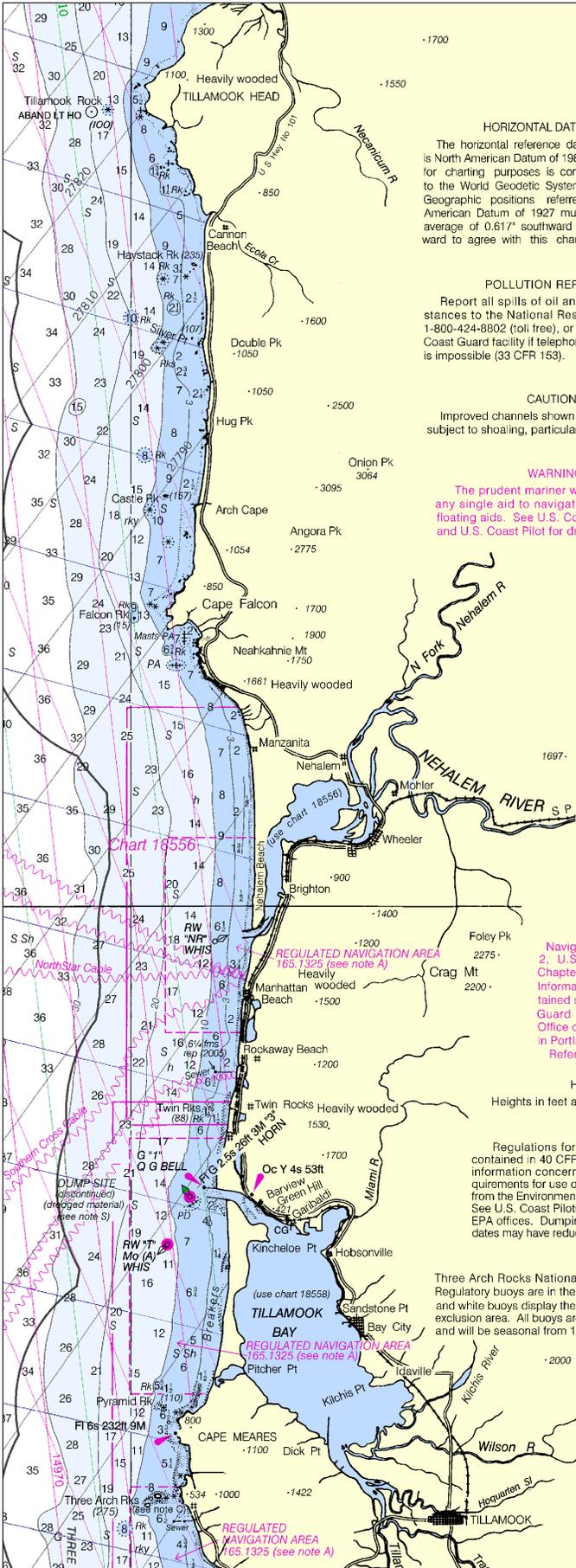
Heights in feet above Mean High Water.

NOTE S

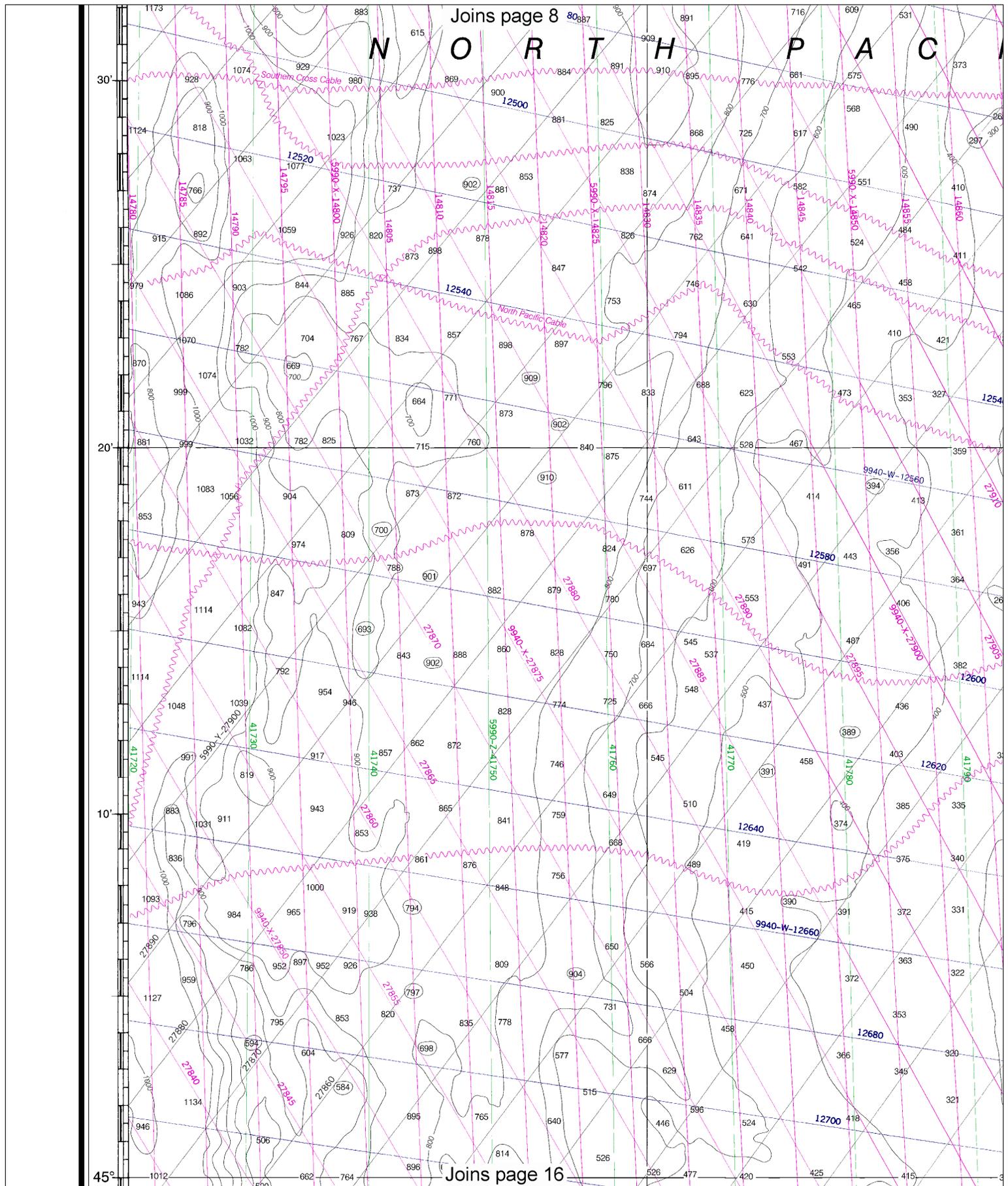
Regulations for Ocean Dumping Sites are contained in 40 CFR, Parts 220-229. Additional information concerning the regulations and requirements for use of the sites may be obtained from the Environmental Protection Agency (EPA). See U.S. Coast Pilots appendix for addresses of EPA offices. Dumping subsequent to the survey dates may have reduced the depths shown.

NOTE C

Three Arch Rocks National Wildlife Refuge. 3 Informational/Regulatory buoys are in the vicinity of 3-Arch rocks. The orange and white buoys display the words "AREA CLOSED" & symbol for exclusion area. All buoys are located within 500 feet of the rocks and will be seasonal from 15 April to 15 Sept.

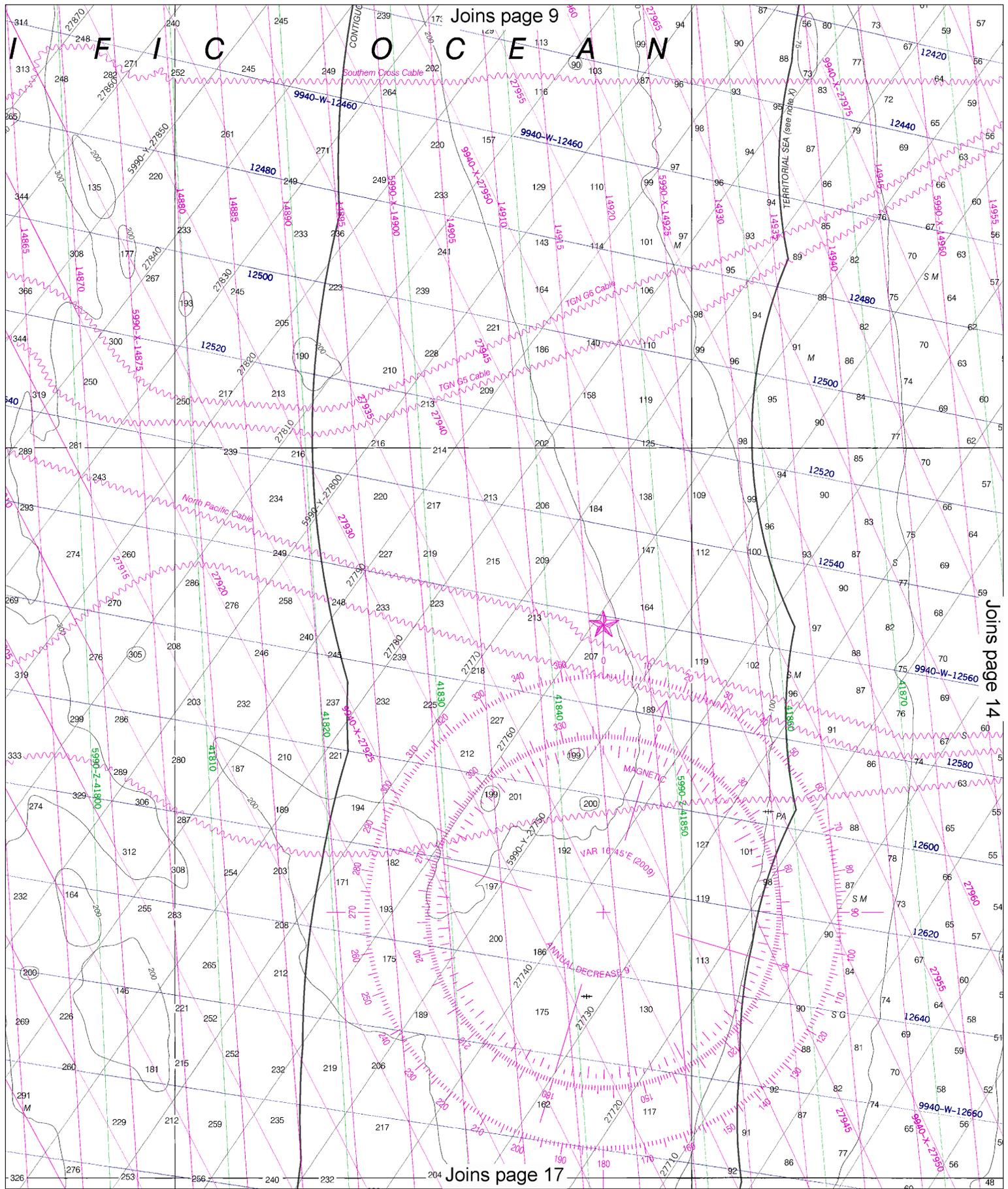


Joins page 15



12

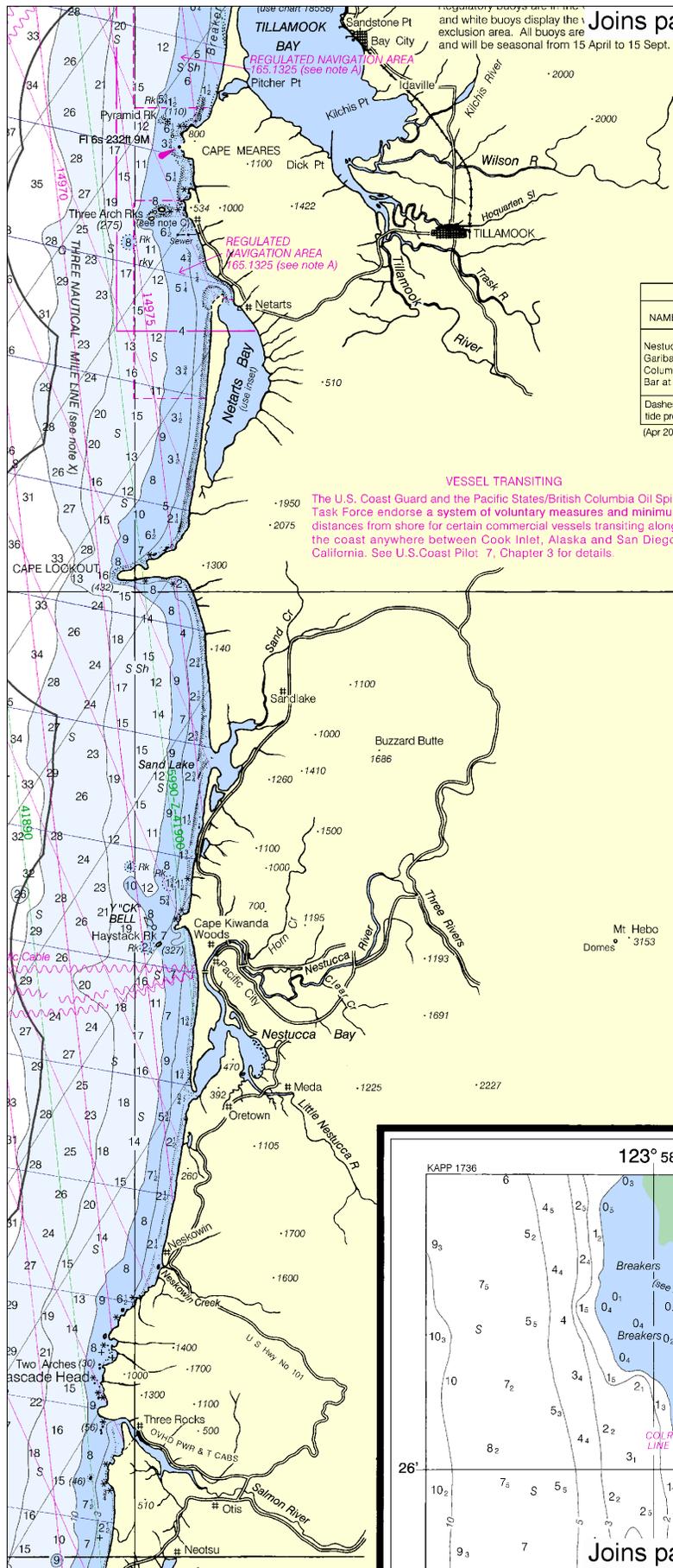
Note: Chart grid lines are aligned with true north.



Joins page 9

Joins page 14

Joins page 17



based on survey data. Every effort has been made to meet the 1/4 nautical mile accuracy criteria established by the U.S. Coast Guard. Mariners are cautioned not to rely solely on the lattices in inshore waters.

For Symbols and Abbreviations see Chart No. 1

COLREGS: International Regulations for Preventing Collisions at Sea, 1972.
Demarcation lines are shown thus: ---

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.

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

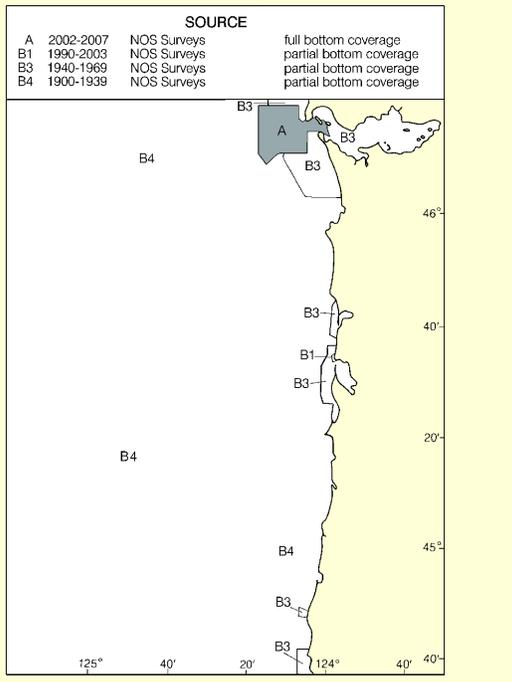
TIDAL INFORMATION

PLACE	Height referred to datum of soundings (MLLW)		
	Mean Higher High Water	Mean High Water	Mean Low Water
Nestucca Bay entrance, Oregon (45°10'N/123°58.02'W)	feet 7.6	feet 6.9	feet 1.1
Garibaldi, Tillamook, Oregon (old) (45°33.6'N/123°54.72'W)	7.8	7.1	1.2
Columbia River Entr. (N. Jetty), Wash. (46°16.4'N/124°4.32'W)	7.5	6.8	1.2
Bar at entrance, Yaquina Bay, Oregon (44°37'N/124°4.98'W)	7.9	7.2	1.3

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>. (Apr 2009)

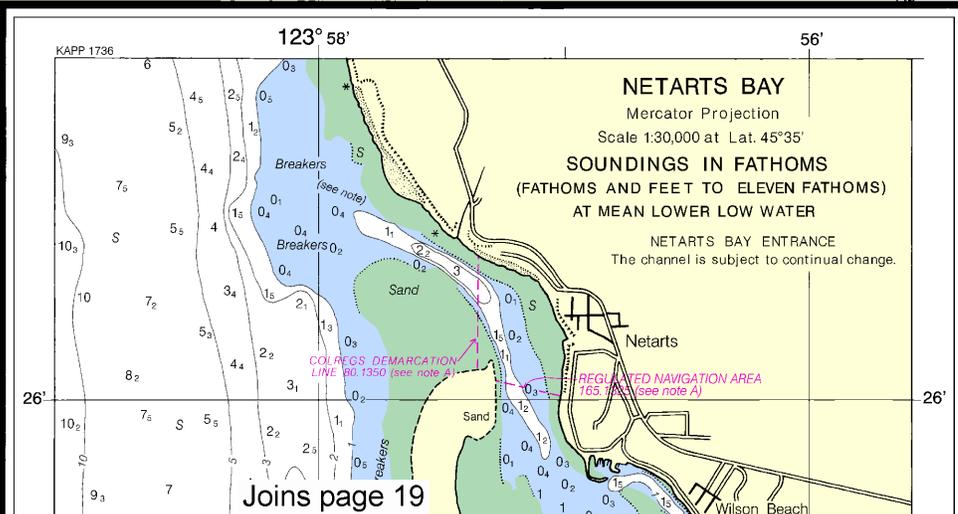
SOURCE DIAGRAM

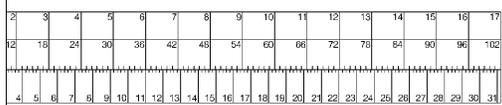
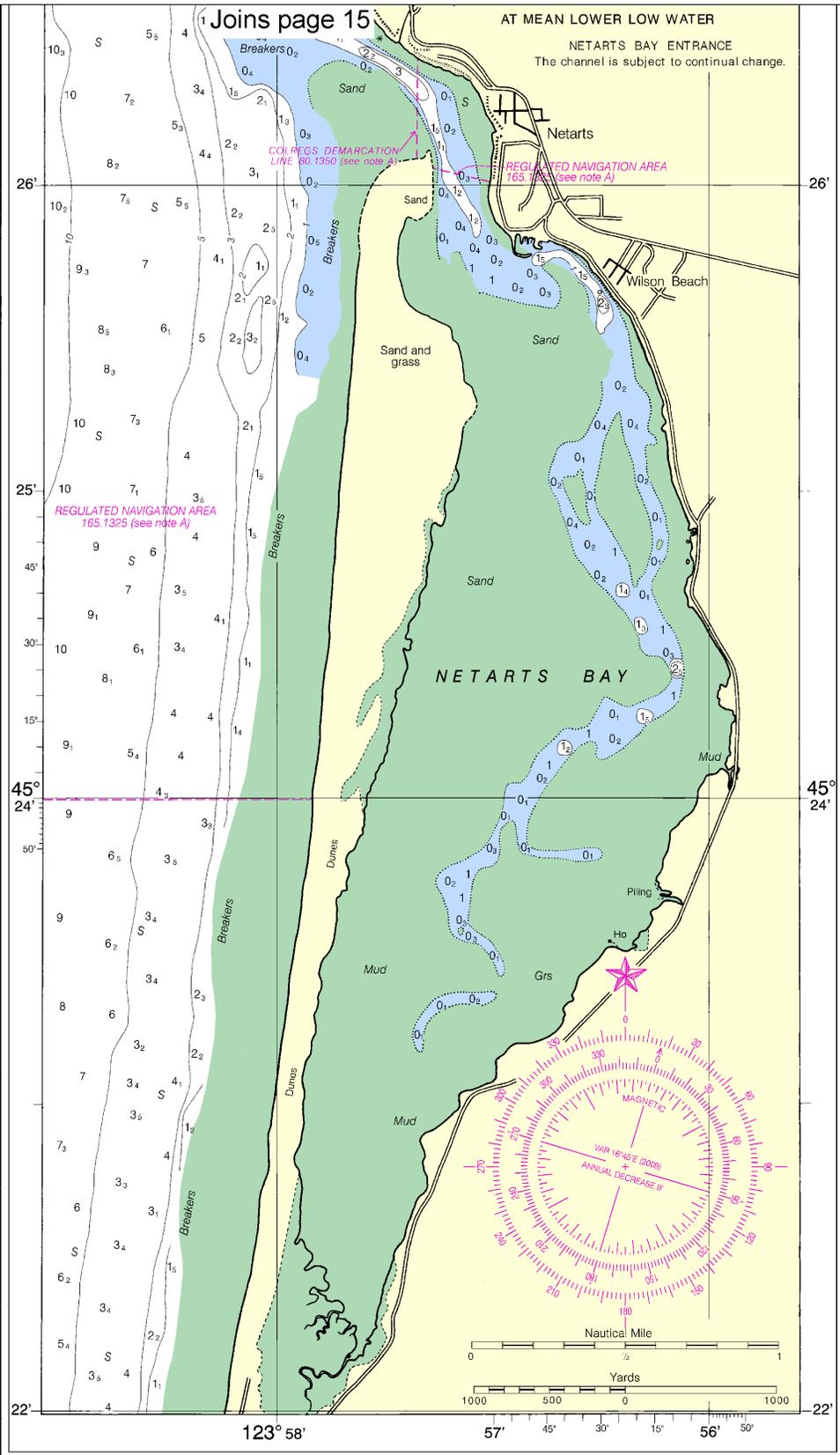
The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on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



VESSEL TRANSITING

The U.S. Coast Guard and the Pacific States/British Columbia Oil Spill Task Force endorse a system of voluntary measures and minimum distances from shore for certain commercial vessels transiting along the coast anywhere between Cook Inlet, Alaska and San Diego, California. See U.S. Coast Pilot: 7, Chapter 3 for details.





Yaquina Head to Columbia River
SOUNDINGS IN FATHOMS-SCALE 1:185,238

18520
LORAN-C OVERPRINTED





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.

NOAA's Office of Coast Survey



The Nation's Chartmaker