

# BookletChart™

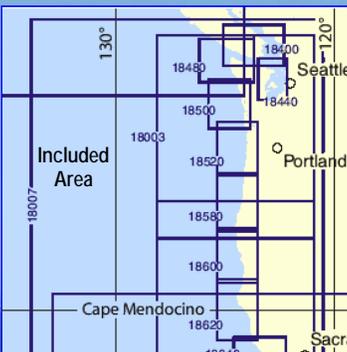
## San Francisco to Cape Flattery

NOAA Chart 18007

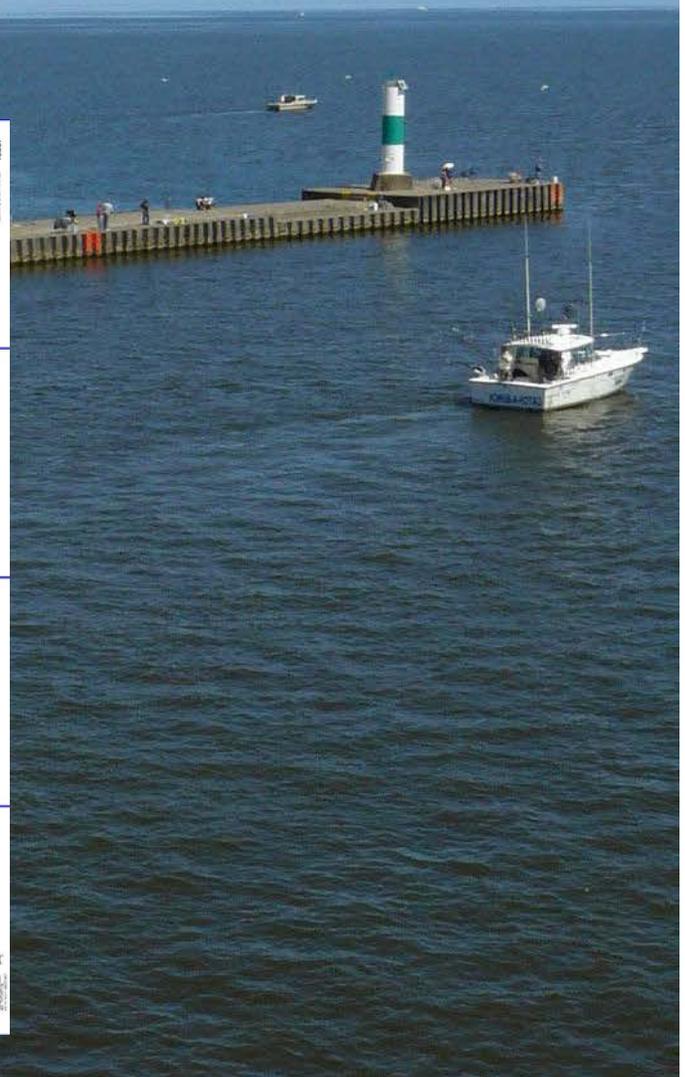
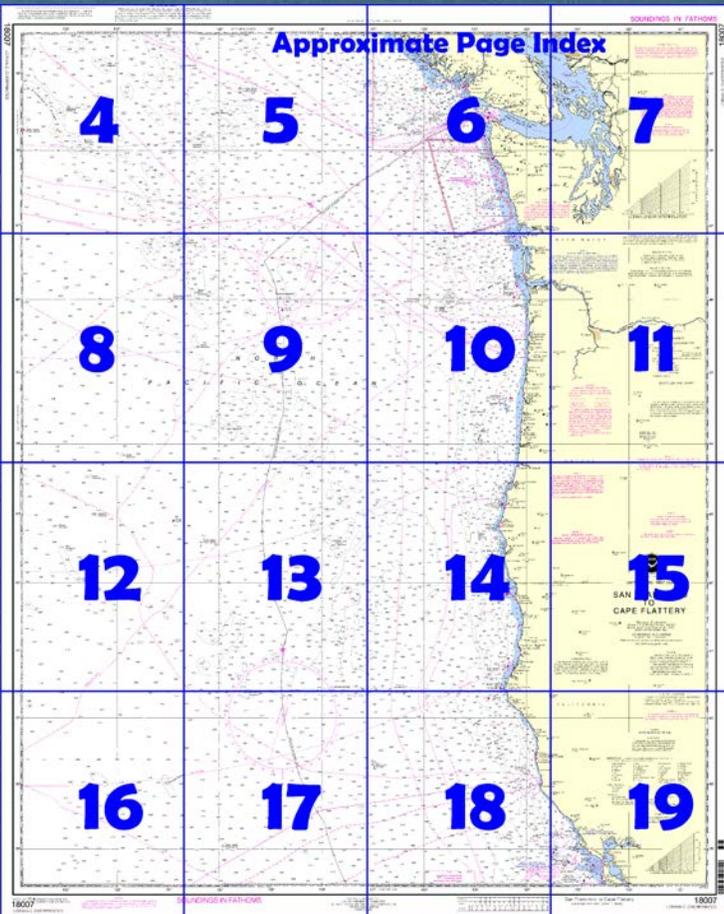


*A reduced-scale NOAA nautical chart for small boaters*

*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](http://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.

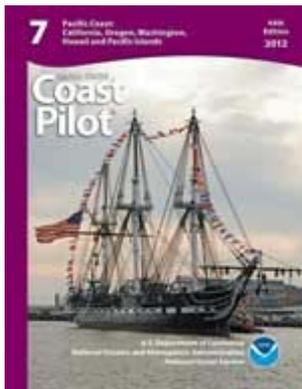
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

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=18007>.



**(Selected Excerpts from Coast Pilot)**  
**Columbia River** rises in British Columbia, Canada, through which it flows for some 370 (425) miles before entering the continental United States in NE Washington. Thence it flows S to its junction with Snake River, from which it curves W and forms the boundary between the States of Washington and Oregon for the remainder of its course to the Pacific Ocean. Its entrance is 548 miles N of San Francisco and 145 miles S of the Strait of Juan de Fuca. The length of the river is 647 (745) miles in the United States. Between the Cascade

Mountains, the river flows through a canyon averaging about 5 miles wide between high cliffs on each side; of this width, the river occupies about 1 mile, the rest being marsh, low islands, and lowlands. Near the mouth, the river becomes wider, and in some places is 5 miles across. Columbia and Willamette Rivers are navigable by deep-draft vessels to Vancouver, WA, and Portland, OR. Barges navigate the Columbia River to Pasco and Kennewick, WA, 286 (329) miles above the mouth. Navigation on the tributary Snake River, which joins the Columbia at Pasco, is possible to Lewiston, Idaho. The hydro-electric powerplants at the dams on the Columbia provide the major supply of electricity for the entire Northwest.

The commerce, both foreign and domestic, is extensive. The exports are principally logs, lumber, and forest products, grain, flour, chemicals, fruit, fish, general and containerized cargo, and general merchandise; the imports are coal, petroleum products, bulk salt, bulk cement, alumina, manufactured, and general and containerized cargo. There are numerous settlements and landings, but Astoria, OR; Longview, WA; Vancouver, WA; and Portland, OR are the principal shipping points. The distances above the mouth of the Columbia River to these ports are, respectively, 12 (14) miles, 58 (66) miles, 92 (106) miles, and 97 (112) miles; Portland is on the Willamette River 9 (10.5) miles above its junction with the Columbia. The Columbia River has major highways (State, U.S., and Interstate) on the S and N sides connecting principal cities and the towns in between.

**Prominent features:**

**Columbia River Approach Lighted Whistle Buoy CR** (46°11'05"N., 124°11'03"W.), about 5.3 miles SW of the entrance to Columbia River, has red and white vertical stripes and is equipped with a racon.

**Mount Saint Helens**, nearly 8,500 feet high with a truncated-cone shape, is about 75 miles E of the entrance to the river. On a clear day it is visible when looking up the valley from seaward. **Mount Hood** and **Mount Adams** are lofty snow-covered peaks, which are also visible from parts of Columbia River on a clear day.

In 1980, several volcanic eruptions occurred from Mount Saint Helens. Mount Saint Helens' eruptions were the first in the continental United States since the volcanic eruption of Mount Lassen in northern California in 1915; both volcanoes are part of the Cascade Range.

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

RCC Seattle      Commander  
13<sup>th</sup> CG District      (206) 220-7001  
Seattle, WA

# Table of Selected Chart Notes

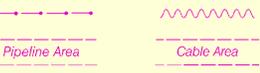
**HEIGHTS**  
Heights in feet above Mean High Water.

**NOTE E**  
**TRAFFIC SEPARATION SCHEME**  
Recommended traffic lanes established for the approaches to San Francisco Bay are shown on charts 18645, 18680, and 18640.

**NOTE H**  
**TRAFFIC SEPARATION SCHEME**  
Recommended traffic lanes established for the approaches to the Strait of Juan De Fuca are shown on charts 18480, 18400 and 18465.

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

**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, cragging, or trawling.  
Covered wells may be marked by lighted or unlighted buoys.

**AUTHORITIES**  
Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, U.S. Coast Guard, and National Geospatial-Intelligence Agency and Canadian Authorities.

**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)

**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.

For Symbols and Abbreviations see Chart No. 1

**NOTE J**  
**AREA TO BE AVOIDED**



In order to reduce the risk of a marine casualty and resulting pollution and damage to the environment of the Olympic Coast National Marine Sanctuary, all ships and barges that carry oil or hazardous materials in bulk as cargo or cargo residue and all ships 400 gross tonnage and above solely in transit should avoid the area. See IMO SN circular 309.

Mercator Projection  
Scale 1:1,200,000 at Lat. 49°00'  
North American Datum of 1983  
(World Geodetic System 1984)  
SOUNDINGS IN FATHOMS  
(FATHOMS AND FEET TO ELEVEN FATHOMS)  
AT MEAN LOWER LOW WATER

**NOTE I**  
The U.S. Coast Guard operates an Offshore Vessel Movement Reporting System (OVMS) covering the seaward approaches to San Francisco Bay. All commercial vessels over 300 gross tons and all tugs with tows are requested to contact Vessel Traffic Service San Francisco on VHF-FM channel 12 (156.60 MHz) when entering this area. All vessels in the area are encouraged to listen on channel 12 at fifteen and forty-five minutes past each hour for broadcast reports of known shipping traffic in the area. Additional information on the OVMS is published in Coast Pilot 7 and information concerning specific operating procedures is available from the VTS.

**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 do not require conversion to NAD 83 for plotting on this chart.

**NOTE C**  
**NAVAL OPERATING AREAS**  
Mariners should use caution as naval craft may be maneuvering within the areas. For further information consult Local Notices to Mariners.

**NOTE A**  
Navigation regulations are published in Chapter 2, U.S. Coast Pilot 7. Additions or revisions to Chapter 2 are published in the Notices to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 13th Coast Guard District in Seattle, Wash., and the 11th Coast Guard District in Long Beach, Calif., or at the Office of the District Engineer, Corps of Engineers in San Francisco, California, Portland, Oregon, and Seattle, Washington.  
Refer to charted regulation section numbers.

**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.

**LORAN-C**  
**GENERAL EXPLANATION**

Hood  
224 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    9940-Y  
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.

**NOTE F**  
The San Francisco Bay Vessel Traffic Service is not shown on this chart. See charts 18645 and 18649.

**NOTE D**  
Acoustic sensors, consisting of a concrete anchor and tethered instrument package floating above the anchor, are positioned approximately 1000 yards apart along the line. The depth of the floating portion of the instrument varies with local bottom depth. For instruments anchored at less than 150m depth (near shore), the floating portion of the instrument is within 5m of the bottom. For instruments anchored at 150m depth or greater, the instrument package is tethered approximately 150m below the water surface.

**MAGNETIC VARIATION**  
Magnetic variation curves are for 2009 derived from 2005 World Magnetic Model and accompanying secular change. If annual change is in same direction as variation it is additive and the variation is increasing. If annual change is opposite in direction to variation it is subtractive and the variation is decreasing.

**AIDS TO NAVIGATION**  
Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.  
See Canadian List of Lights, Buoys and Fog Signals for information not included in the U.S. Coast Guard Light List.

**NOTE B**  
**CHEMICAL MUNITIONS DUMPING AREA - RESTRICTION**  
Site was formerly used or designated for U.S. Chemical munitions dumping. Such use has been discontinued.  
Designation of such area in no way constitutes authority for dumping.

**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).

**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 Pilots 7 and 8, Chapter 3 for details.

**NOTE G**  
**NATIONAL MARINE SANCTUARIES**  
National Marine Sanctuaries are protected areas, administered by NOAA which contain abundant and diverse natural resources such as marine mammals, seabirds, fishes, and tidepool invertebrates. These areas are particularly sensitive to environmental damage such as spills of oil and other hazardous materials, discharges, and groundings. Exercise particular caution and follow applicable Sanctuary regulations when transiting these areas to avoid environmental impacts. A full description of Sanctuary regulations may be found in 15 CFR Part 922 and in the Coast Pilot.

**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.

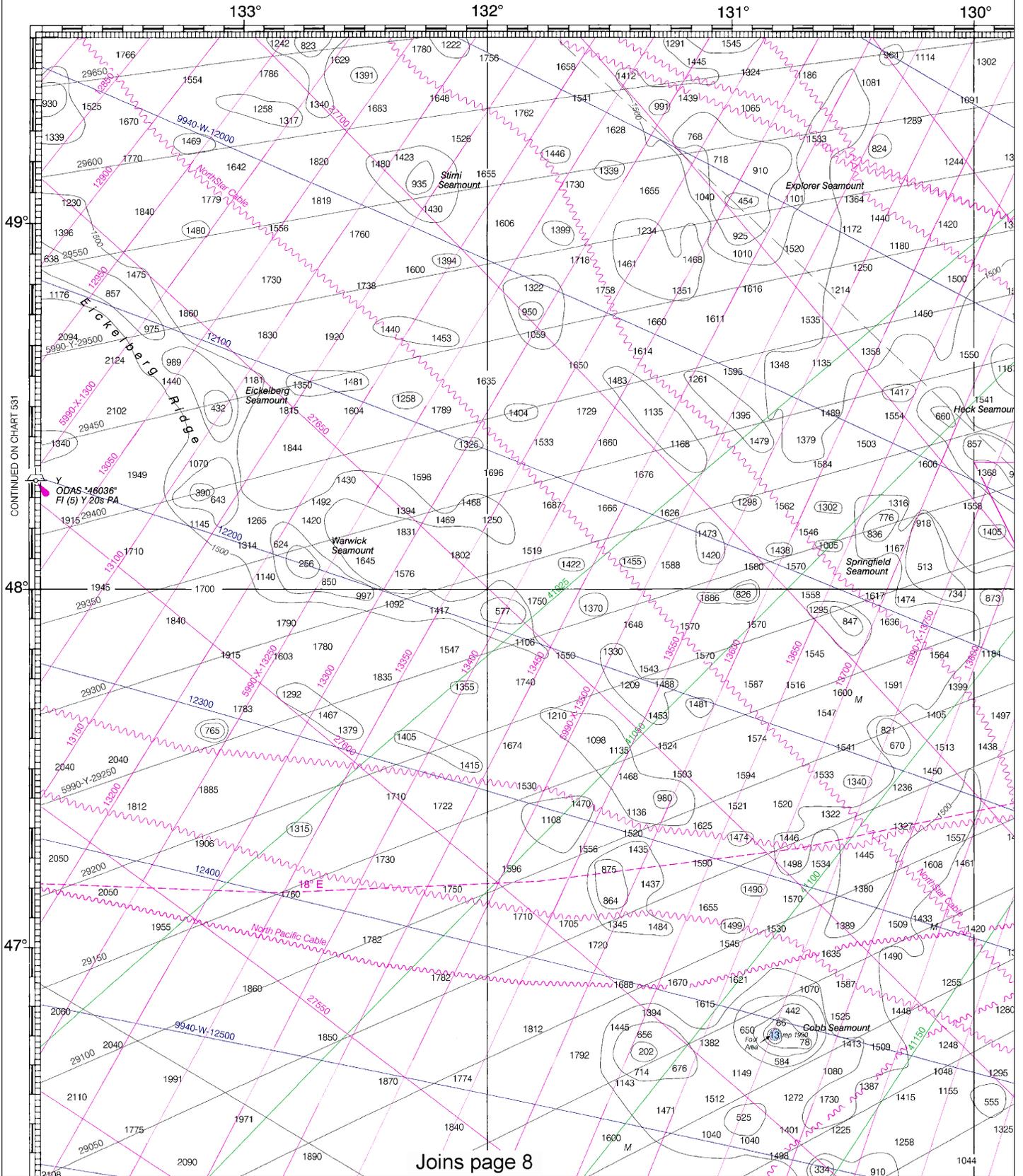
Villapa

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.

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4683, <http://NauticalCharts.gov>, [help@NauticalCharts.gov](mailto:help@NauticalCharts.gov), or OceanGrafix at 1-877-56CHART, <http://OceanGrafix.com>, or [help@OceanGrafix.com](mailto:help@OceanGrafix.com).

18007

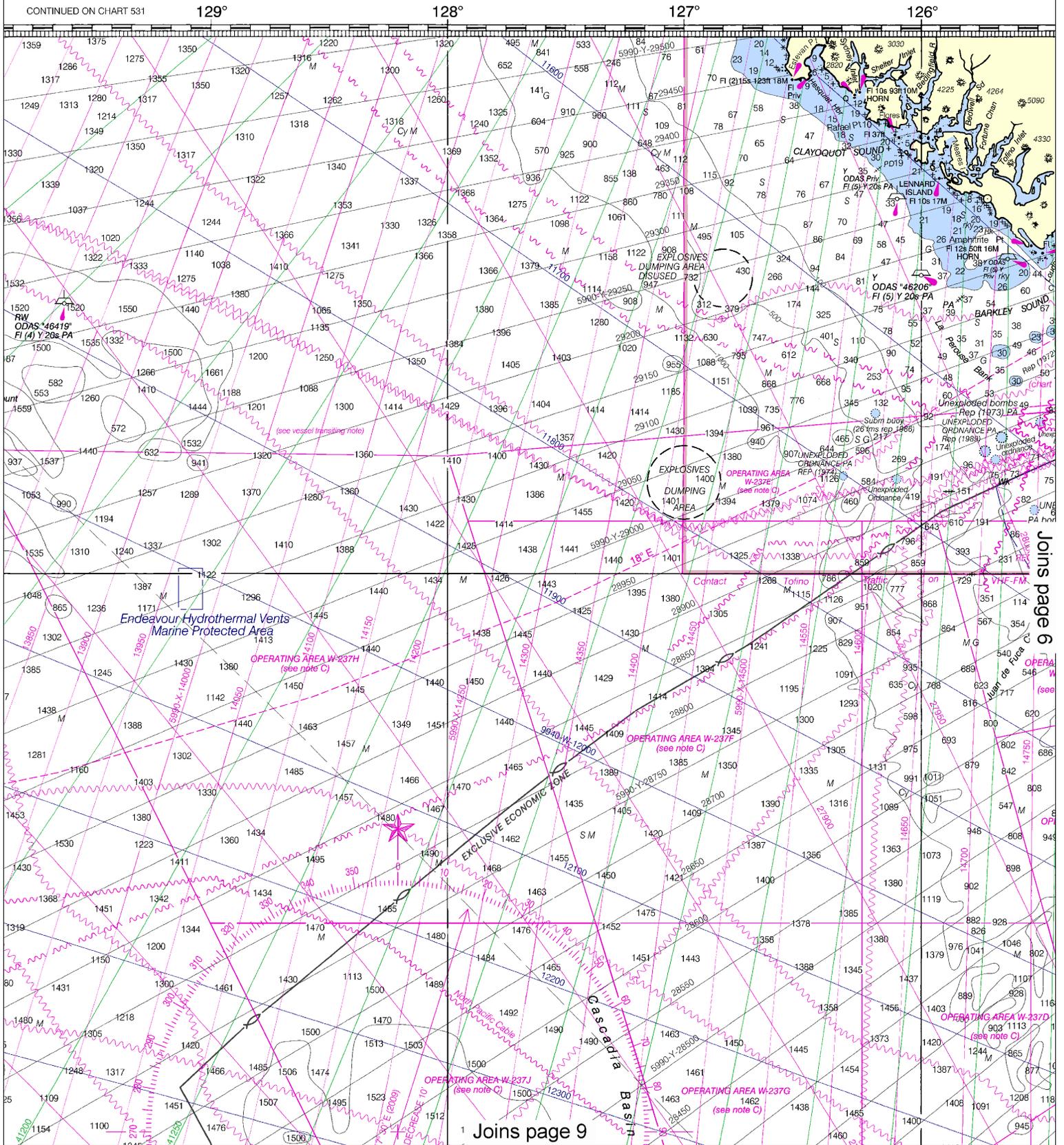
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Joins page 8

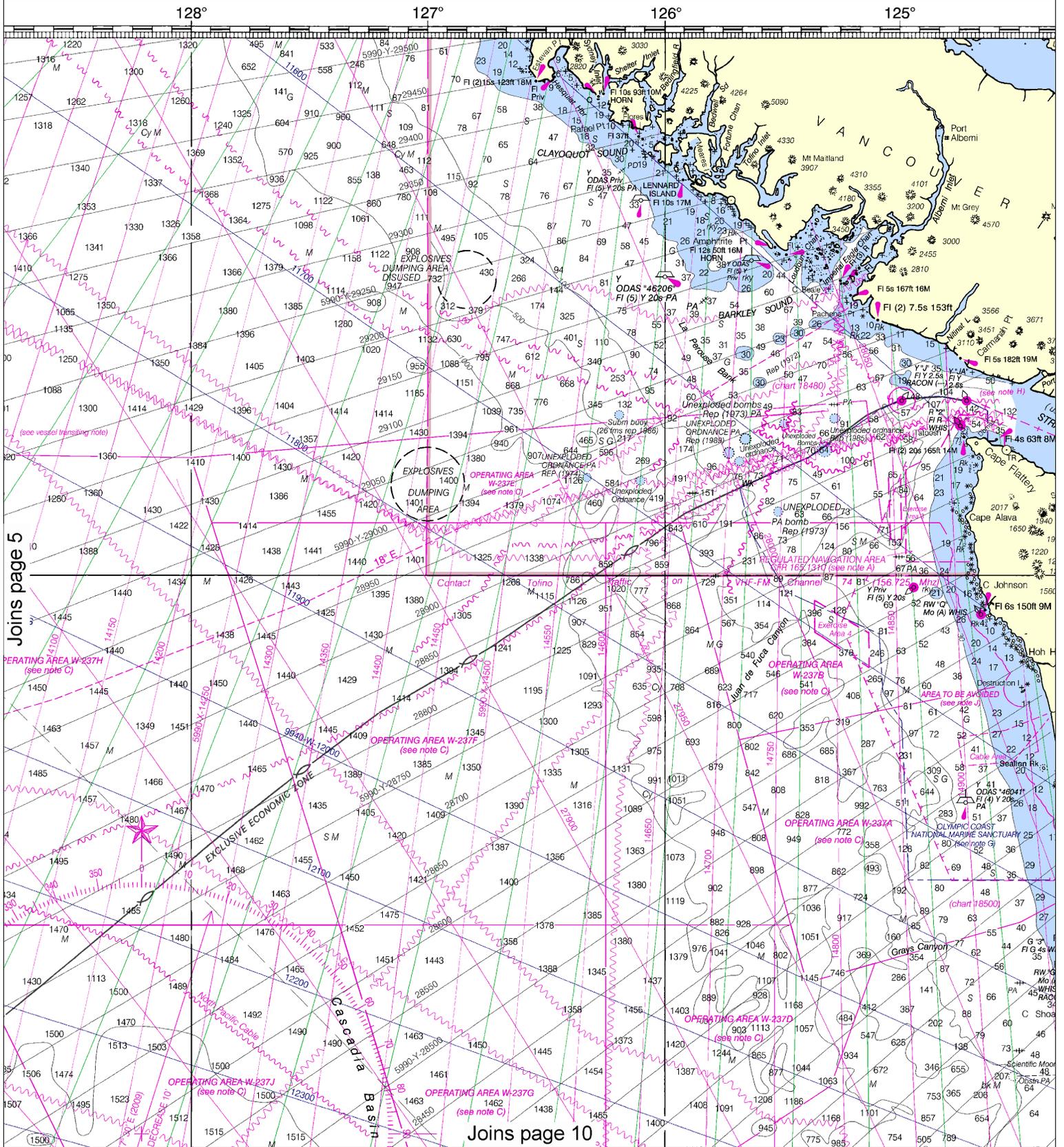
4

Note: Chart grid lines are aligned with true north.



This BookletChart was reduced to 75% of the original chart scale.  
The new scale is 1:1600000. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.





Joins page 5

Joins page 10

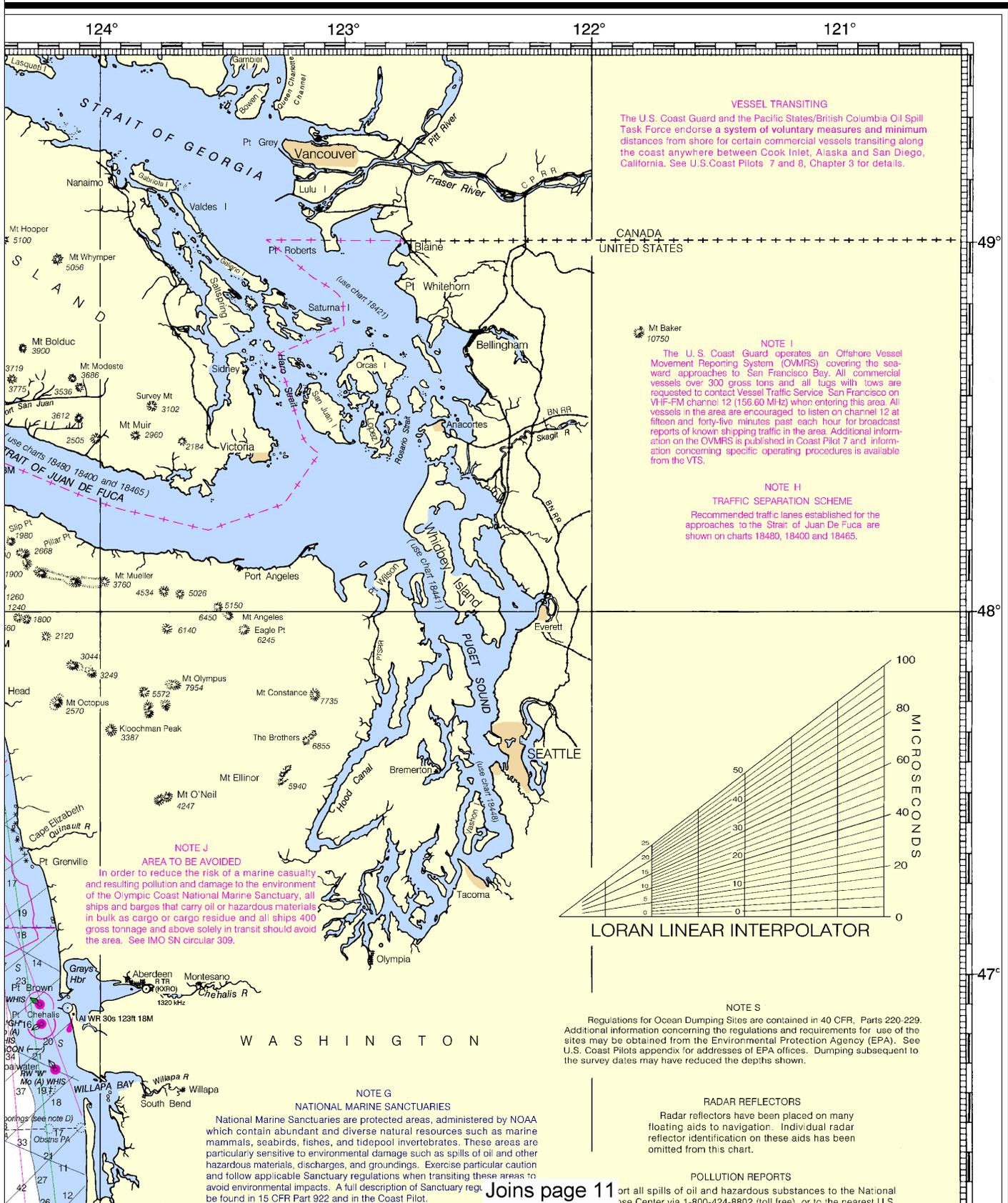


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# SOUNDINGS IN FATHOMS

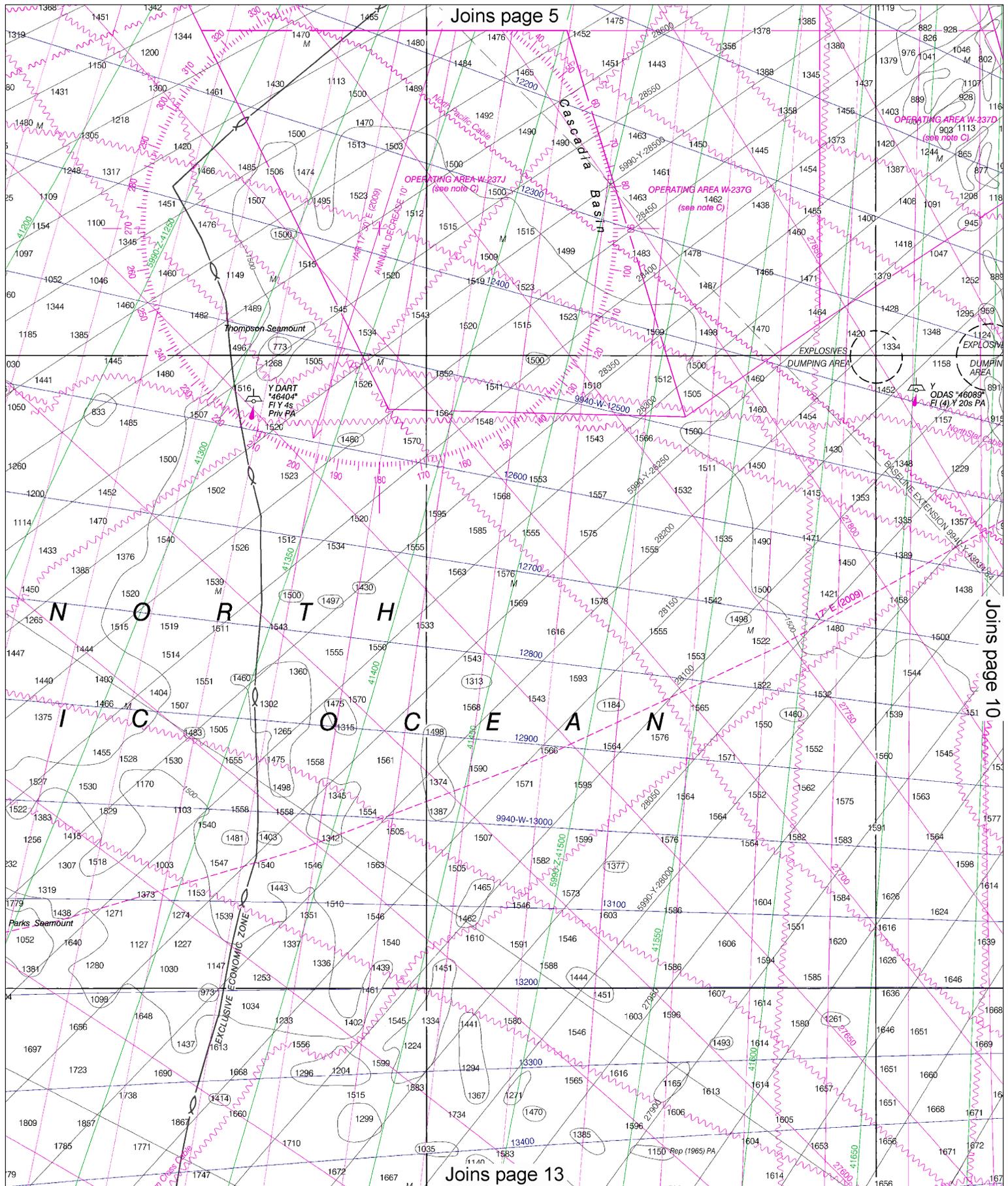
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LORAN-C OVERPRINTED



Joins page 11

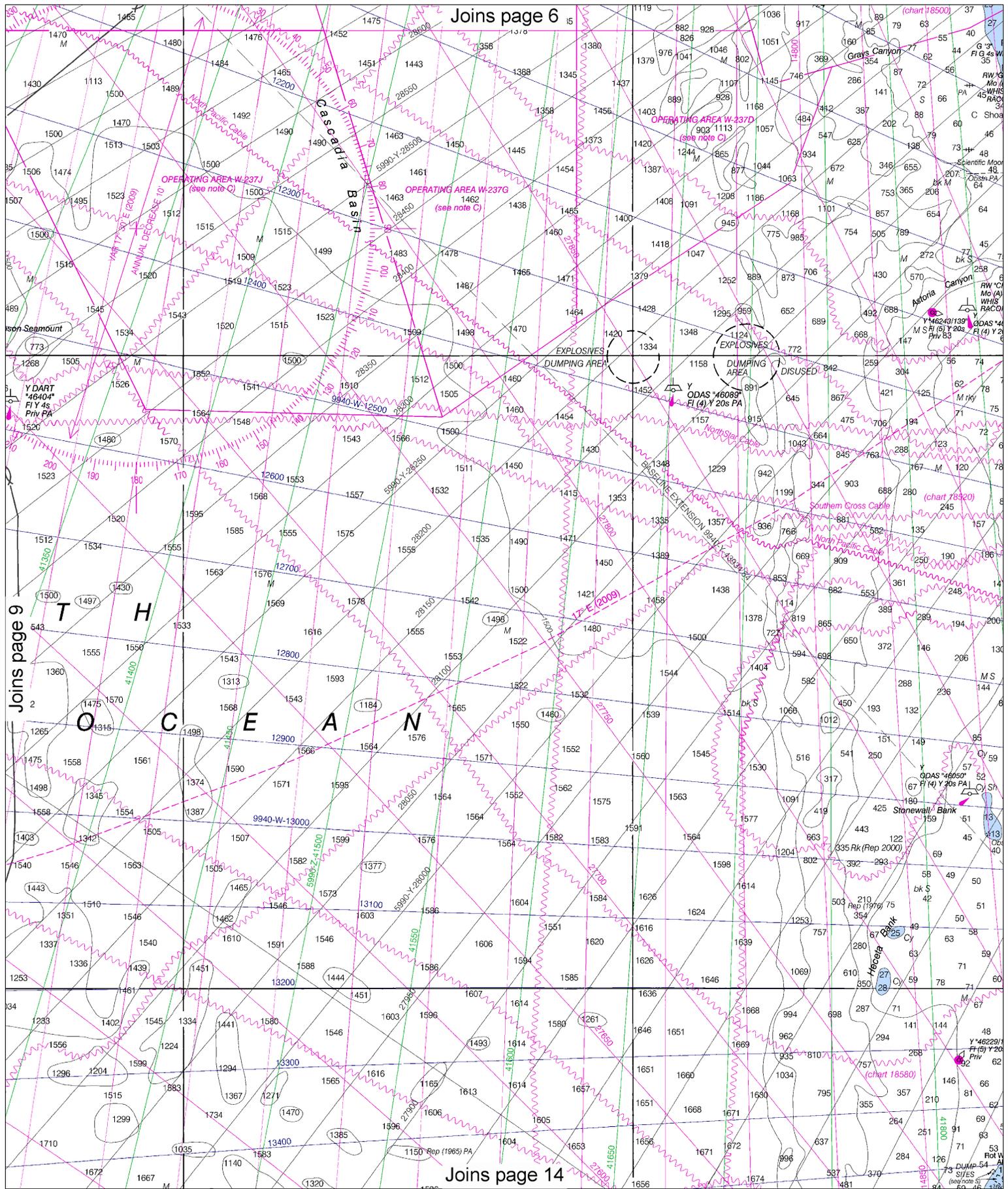




Joins page 5

Joins page 10

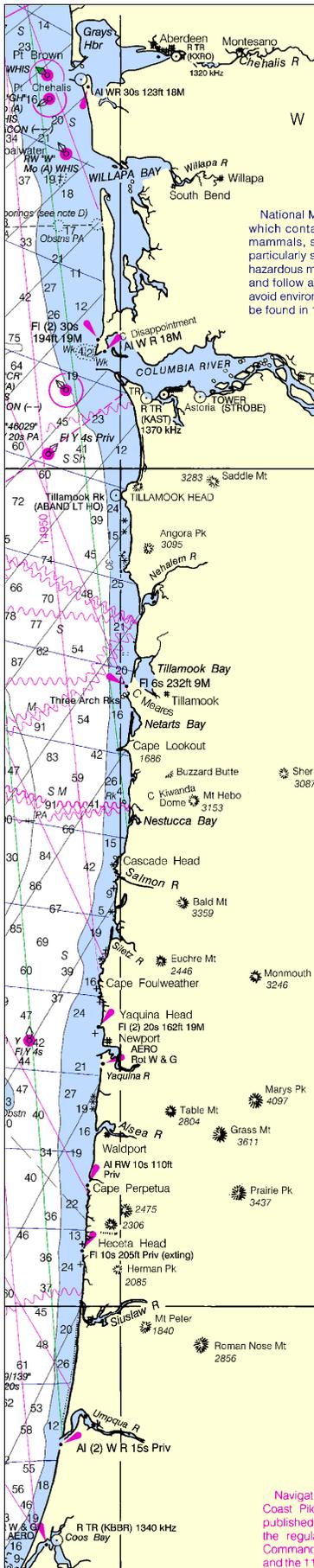
Joins page 13



10

Note: Chart grid lines are aligned with true north.

WASHINGTON



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OREGON

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STATION TYPE DESIGNATORS: (Not individual station letter designators).  
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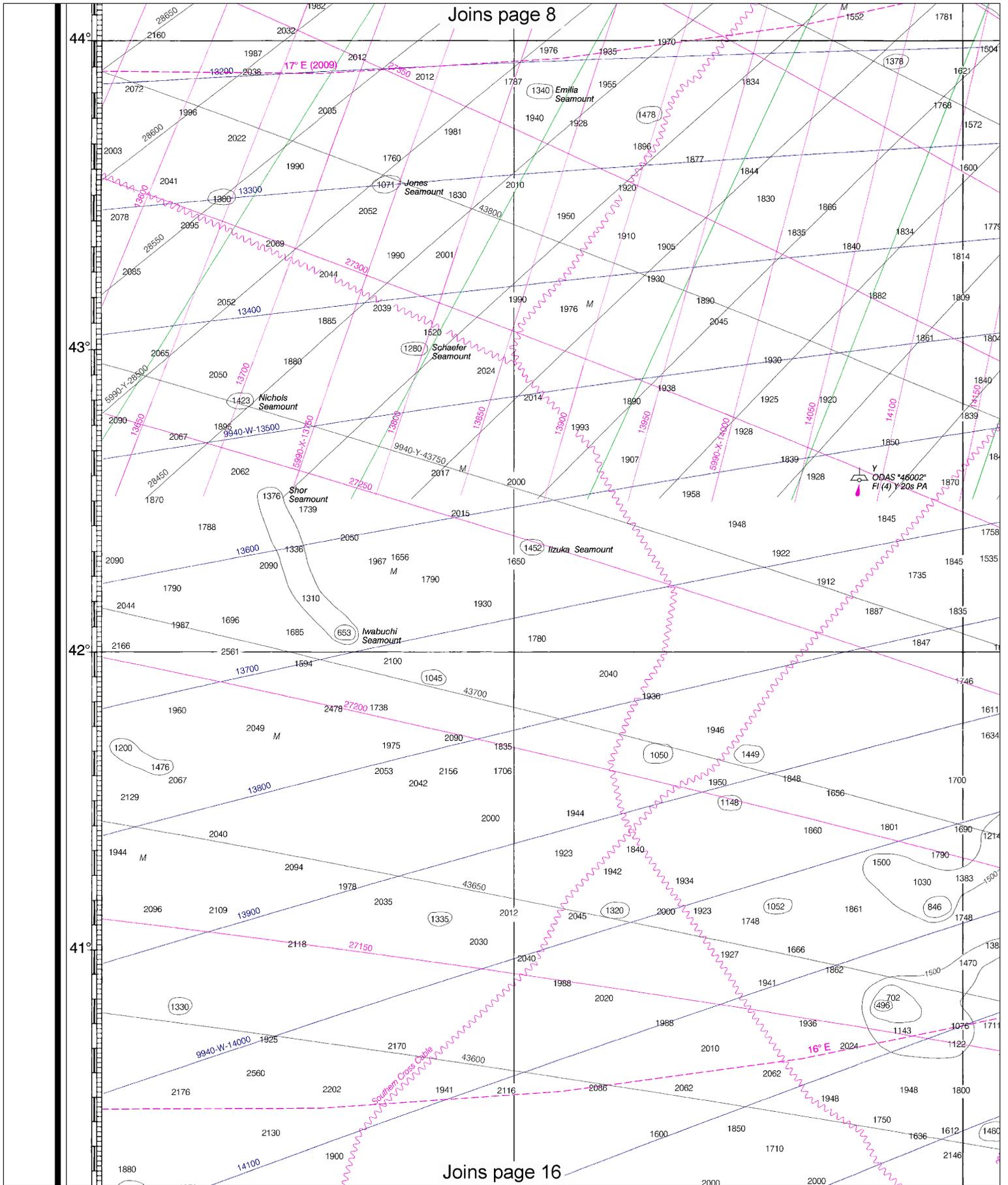
NOTE B

CHEMICAL MUNITIONS DUMPING AREA - RESTRICTION  
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NOTE D

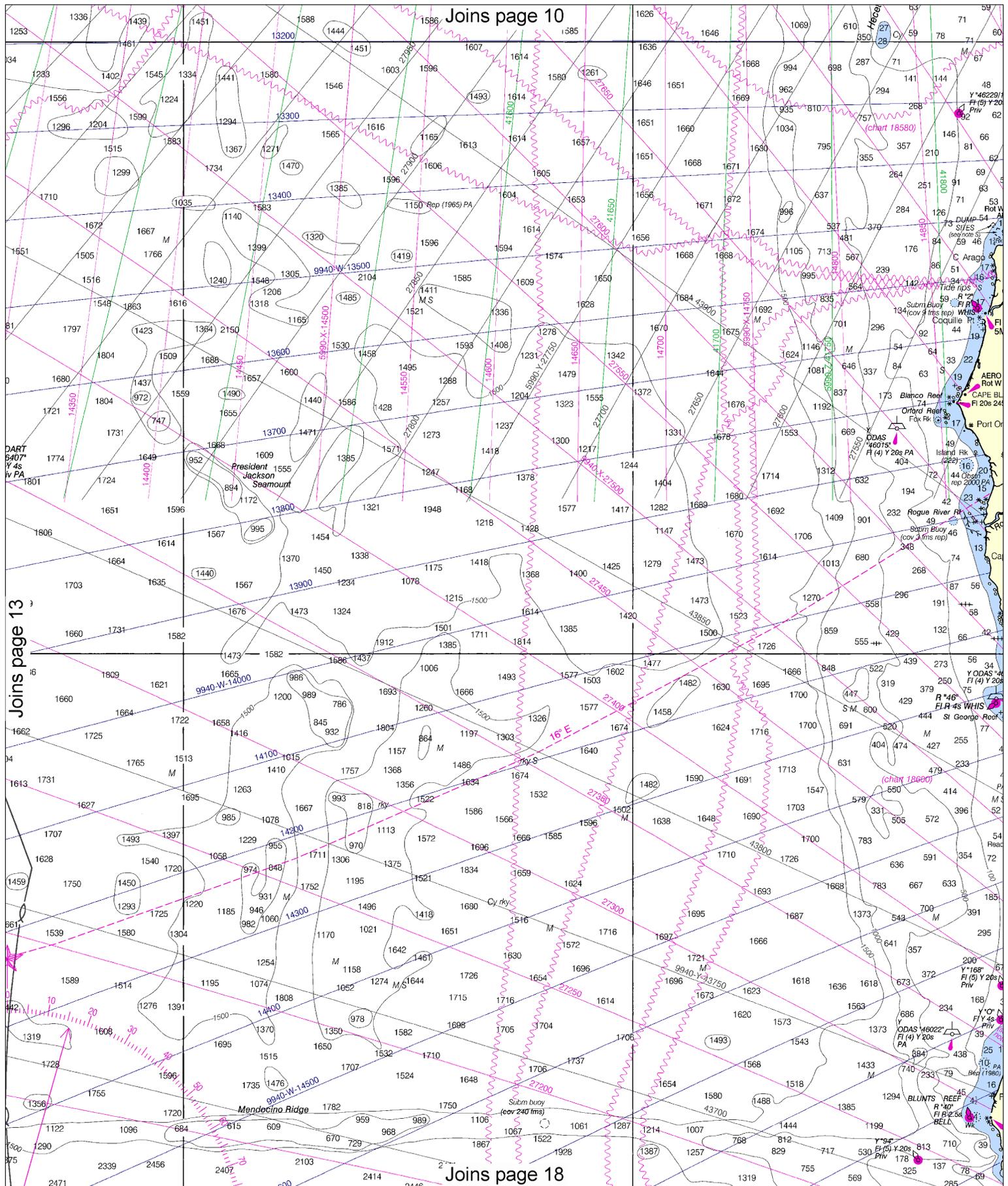
Acoustic sensors, consisting of a concrete anchor and tethered instrument package floating above the anchor, are positioned approximately 1000 yards apart along the

47°  
46°  
45°  
44°



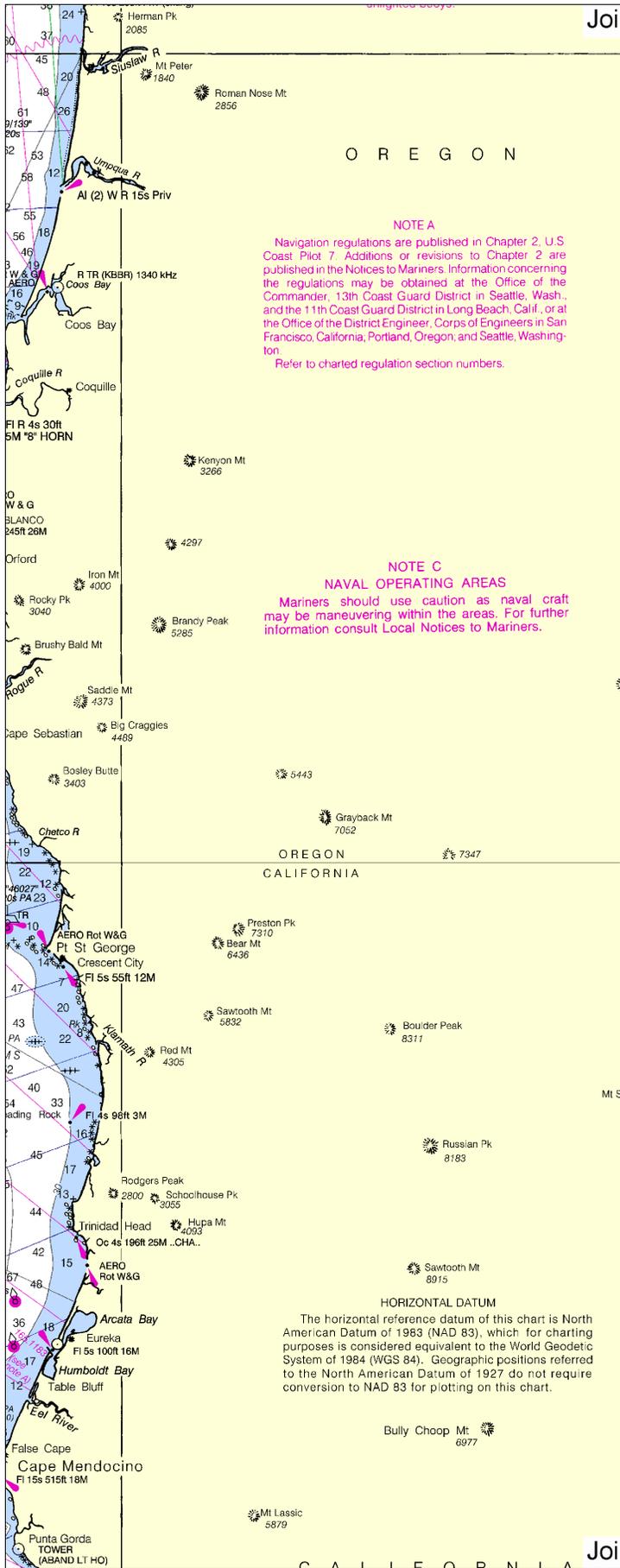
Note: Chart grid lines are aligned with true north.





14

Note: Chart grid lines are aligned with true north.



O R E G O N

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**HORIZONTAL DATUM**  
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**NOTE E**  
**TRAFFIC SEPARATION SCHEME**  
 Recommended traffic lanes established for the approaches to San Francisco Bay are shown on charts 18645, 18680, and 18640.

**NOTE F**  
 The San Francisco Bay Vessel Traffic Service is not shown on this chart. See charts 18645 and 18649.



THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES - WEST COAST  
**SAN FRANCISCO  
 TO  
 CAPE FLATTERY**

Mercator Projection  
 Scale 1:1,200,000 at Lat. 49°00'

North American Datum of 1983  
 (World Geodetic System 1984)

**SOUNDINGS IN FATHOMS**  
 (FATHOMS AND FEET TO ELEVEN FATHOMS)  
 AT MEAN LOWER LOW WATER

For Symbols and Abbreviations see Chart No.1

Additional information can be obtained at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov)

(For offshore navigation only)

**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)

**AIDS TO NAVIGATION**  
 Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation. See Canadian List of Lights, Buoys and Fog Signals for information not included in the U.S. Coast Guard Light List.

44°

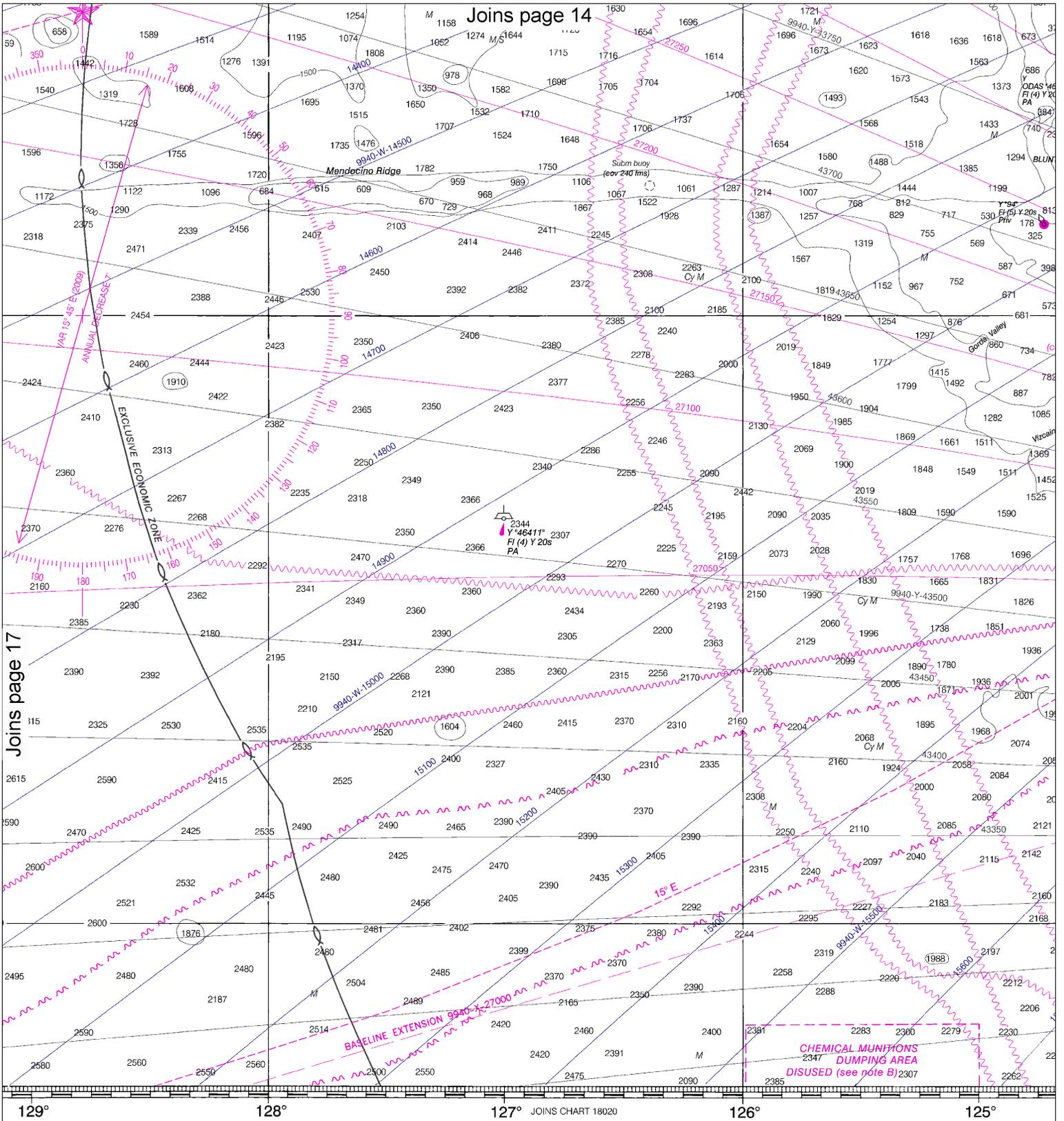
43°

42°

41°







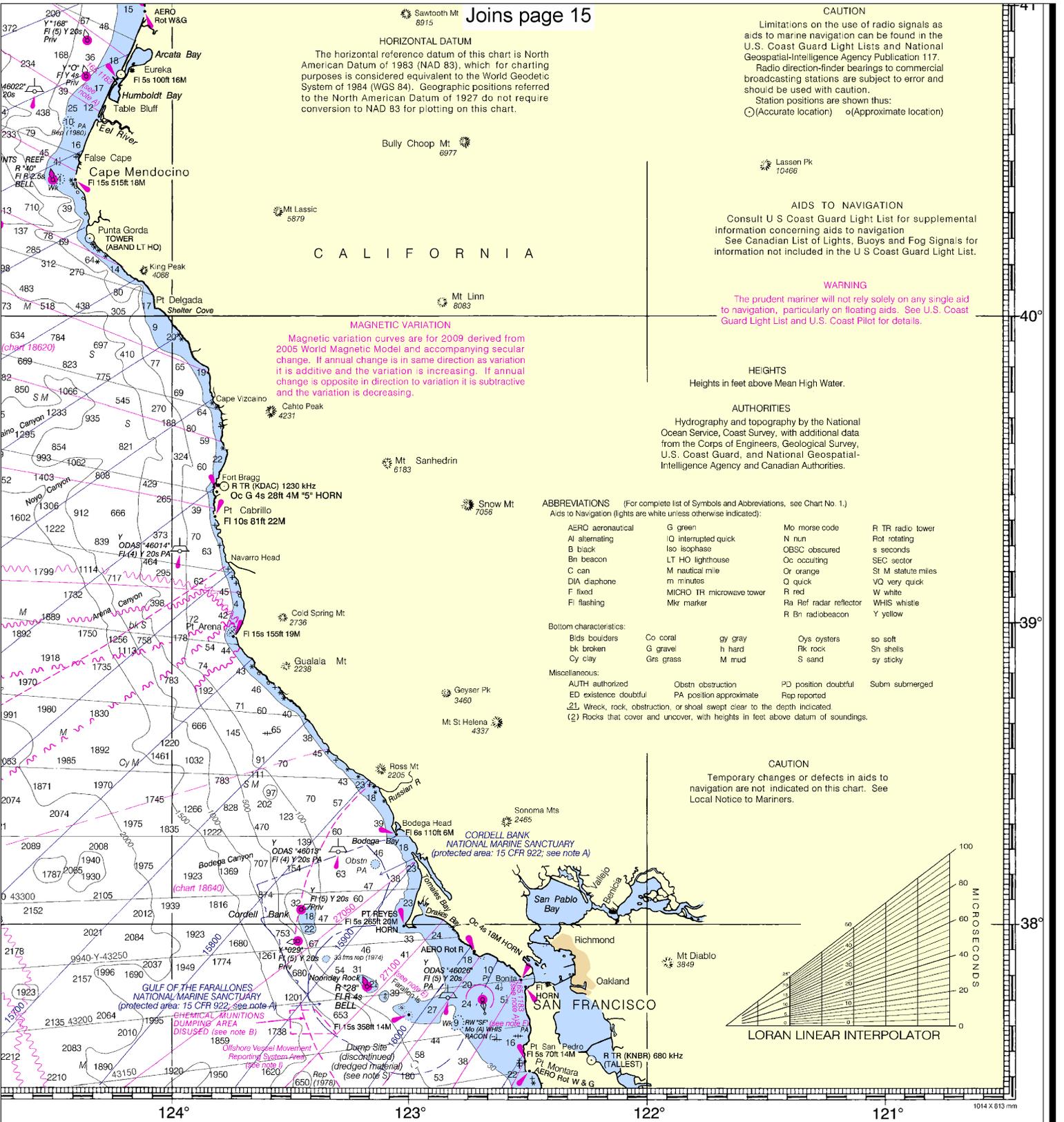
Joins page 17

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
FEET	6	12	18	24	30
METERS	1	2	3	4	5
	6	7	8	9	

# 18

Note: Chart grid lines are aligned with true north.



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○ (Accurate location)    ◌ (Approximate location)

**CALIFORNIA**

**AIDS TO NAVIGATION**  
Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation. See Canadian List of Lights, Buoys and Fog Signals for information not included in the U.S. Coast Guard Light List.

**MAGNETIC VARIATION**  
Magnetic variation curves are for 2009 derived from 2005 World Magnetic Model and accompanying secular change. If annual change is in same direction as variation it is additive and the variation is increasing. If annual change is opposite in direction to variation it is subtractive and the variation is decreasing.

**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.

**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, U.S. Coast Guard, and National Geospatial-Intelligence Agency and Canadian Authorities.

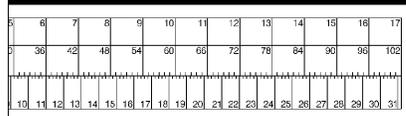
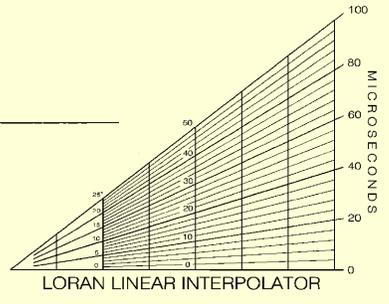
**ABBREVIATIONS** (For complete list of Symbols and Abbreviations, see Chart No. 1.)  
Aids to Navigation (lights are white unless otherwise indicated):  
AERO aeronautical      G green      Mo morse code      R TR radio tower  
Al alternating      IQ interrupted quick      N nun      Rot rotating  
B black      Iso isophase      OBS 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:**  
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      Obsn obstruction      PD position doubtful      Subm submerged  
ED existence doubtful      PA position approximate      Rep reported

① 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.

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



San Francisco to Cape Flattery  
SOUNDINGS IN FATHOMS - SCALE 1:1,200,000

**18007**  
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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](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.

