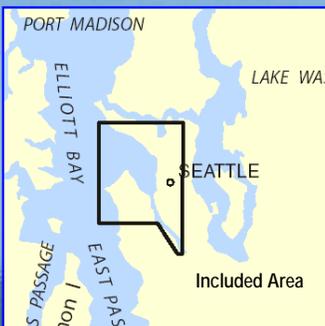


# BookletChart™

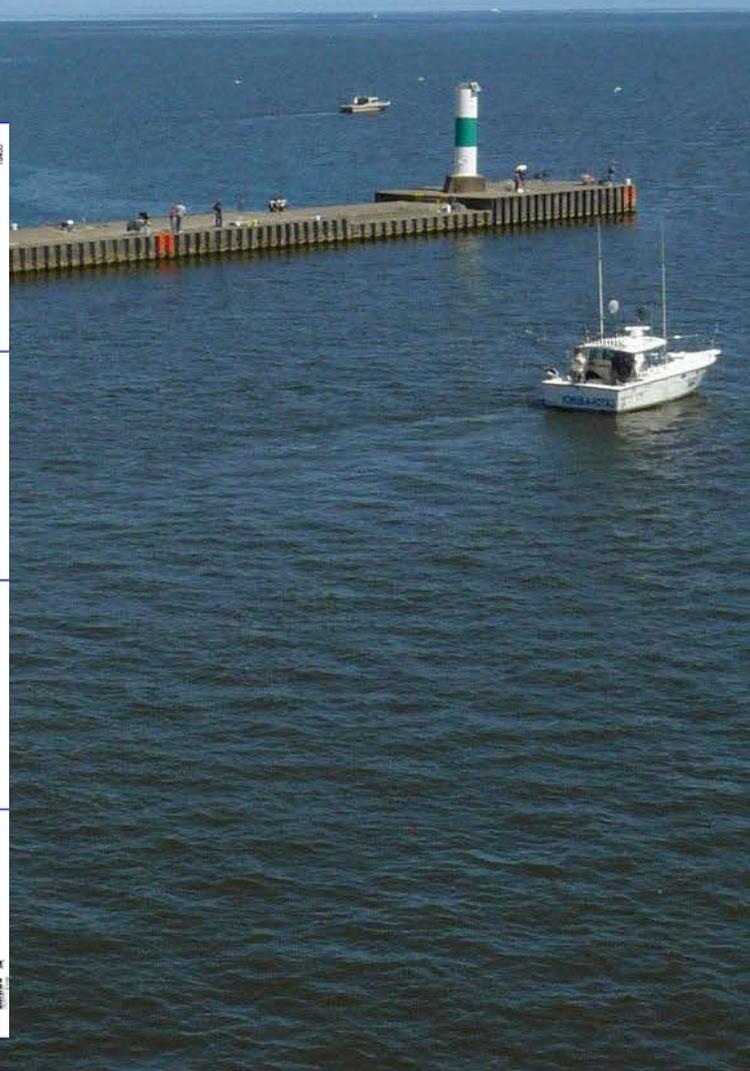
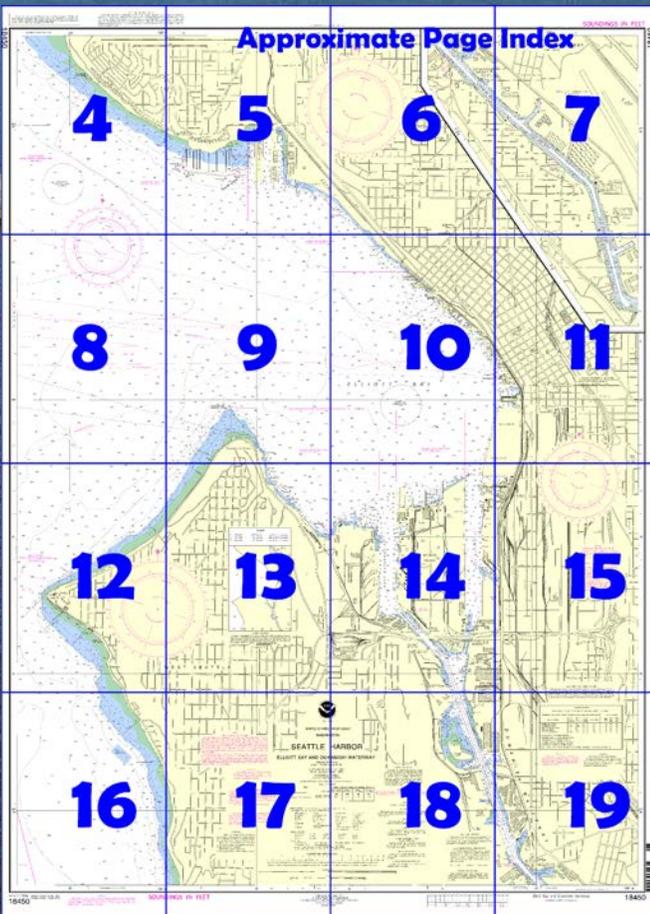


## Seattle Harbor – Elliott Bay and Duwamish Waterway NOAA Chart 18450

*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.

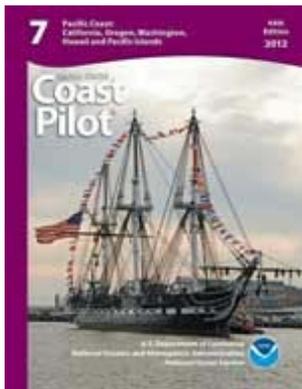
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

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=18450>.



**(Selected Excerpts from Coast Pilot)**  
**Seattle** extends from Everett, the city to its N, almost to Tacoma, the major city to the S, and E beyond the limits of Lake Washington and its shores. Seattle has many modern, fully equipped ocean terminals, excellent transportation facilities, several large shipyards, and numerous large marine supply houses. Much of Seattle's shipping is in the Pacific Rim trade, and the city is a major industrial center. Seattle handles most of the waterborne

commerce to Alaska Ports, and is the terminus of several shipping lines

operating to Alaska as well as other parts of the world. Almost 22 per cent of Seattle's commerce is in the foreign trade, with British Columbia, Japan, Asia, and Europe forming the cornerstone of the overseas commerce.

The **Port of Seattle** includes an outer and inner harbor. The outer saltwater harbor includes Elliott Bay; East, West, and Duwamish Waterways; Shilshole Bay, and the portions of Puget Sound adjacent to Ballard on the N and West Seattle to the S of the entrance of Elliott Bay. Seattle's freshwater inner harbor consists of Lakes Union and Washington, which are connected with each other and with Puget Sound by the Lake Washington Ship Canal. Most of the waterfront facilities of the inner harbor are privately owned.

Of the nearly 60 piers and terminals in the outer harbor, the Port of Seattle owns more than 25, operating three and leasing out the others. These properties include 10 general cargo handling facilities and 1 major container handling terminal. The port also has four fully developed marine terminals, and a fifth in the construction phase, on the Duwamish Waterway S of Harbor Island in the Lower Duwamish Development District, a project which provides lease-sites for terminal facilities and water-oriented industries. The Port of Seattle also operates Seattle-Tacoma International Airport, which is located about midway between Seattle and Tacoma.

The **Marine Exchange of Puget Sound**, located in Seattle, has a Vessel Monitoring/Vessel Reporting service which tracks the arrival of a vessel from a time prior to arrival at the pilot station to a berth at one of the Puget Sound ports. Constant updates of the ship's position and estimated time of arrival are maintained through a variety of sources. This information is available to and is passed to the vessel's agents and to other interested activities. These services continue until the vessel passes the pilot station on her outbound voyage.

Other services offered by the Marine Exchange include a daily newsletter about future marine traffic in the Puget Sound area, communication services, and a variety of coordinative and statistical information. The office monitors VHF-FM channels 20 for Grays Harbor traffic, 9 for Strait of Juan de Fuca traffic to Protection Island, and 20 for Puget Sound traffic from Protection Island, 24 hours a day.

**Vessel Traffic Service Puget Sound**, operated by the U.S. Coast Guard, has been established in the waters of the Strait of Juan de Fuca, Rosario Strait, Admiralty Inlet, Puget Sound, and the navigable waters adjacent to these areas. (See **161.1 through 161.155**, chapter 2, for regulations, and the beginning of chapter 12 for additional information.)

**Regulated navigation area.**-Due to heavy vessel concentrations, the waters of the Strait of Juan de Fuca, the San Juan Islands, the Strait of Georgia, and Puget Sound, and all adjacent waters, are a regulated navigation area. (See **165.1 through 165.13 and 165.1301**, chapter 2, for regulations.)

Floating logs and **deadheads** or **sinkers** may be encountered anywhere in Puget Sound; caution should be exercised.

**Coast Guard.**-A **marine safety office** and a **vessel documentation office** are located in the Federal Building in downtown Seattle. (See Appendix A for addresses.) The Coast Guard moors vessels at the Pier 36 Slip (47°35'24"N., 122°20'31"W.).

**Harbor regulations** are enforced by the Harbor Patrol Unit of the Seattle Police Department. The unit has two patrol boats to aid in the enforcement of the city ordinance prohibiting unlawful destruction by excessive speeds, disorderly behavior, or unsafe seamanship.

**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

Corrected through NM Nov. 17/12  
Corrected through LNM Oct. 30/12

## HEIGHTS

Heights in feet above Mean High Water.

Mercator Projection  
Scale 1:10,000 at Lat 47° 35'

North American Datum of 1983  
(World Geodetic System 1984)

SOUNDINGS IN FEET  
AT MEAN LOWER LOW WATER

## 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 0.646" southward and 4.452" westward to agree with this chart.

## NOTE B

Mariners are cautioned that the Washington State Ferries may deviate from the published standard routes due to inclement weather, traffic conditions, navigational hazards or other emergency conditions.

## 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.

## 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

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)

## AUTHORITIES

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

## NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides 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.

Seattle, WA KHB-60 162.550 MHz

## CAUTION

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

## CAUTION

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

## 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.

## COLMAN FERRY TERMINAL FOG SIGNAL

The light showing fixed white and horn is privately maintained and operated during fog only.

## NOTE C

The U.S. Coast Guard operates a mandatory Vessel Traffic Services (VTS) system in the Puget Sound area. Vessel operating procedures and designated radiotelephone frequencies are published in 33 CFR 161, the U.S. Coast Pilot, and/or the VTS User's Manual. The entire area of the chart falls within the Vessel Traffic Services (VTS) system.

## 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).

## 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.

## 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.

## ANCHORING STANDARDS OF CARE

Anchoring Standards of Care have been established for this area through the Harbor Safety Plan. These Standards of Care supplement existing regulations with good marine practices for anchoring, and are separated into different weather categories. If your vessel does not have a copy of the Anchoring Standards of Care, you can download one at <http://www.marexps.com> or contact (206) 443-3830.

## COLREGS, 80.1395 (see note A)

International Regulations for Preventing Collisions at Sea, 1972.  
The entire area of this chart falls seaward of the COLREGS Demarcation Line.

## TIDAL INFORMATION

PLACE	Height referred to datum of soundings (MLLW)	Height referred to datum of soundings (MLLW)		
		Mean Higher High Water	Mean High Water	Mean Low Water
Duwamish Waterway, Eighth Ave South (47°32'N/122°19'W)	feet	11.1	10.2	2.7
Seattle (47°36'N/122°20'W)	feet	11.4	10.5	2.8

Dashes (- -) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from <http://tidesandcurrents.noaa.gov>. (Sep 2012)

## DUWAMISH WATERWAY

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO JAN 2011

NAME OF CHANNEL	CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)			DATE OF SURVEY	PROJECT DIMENSIONS		
	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER		WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH (FEET)
HARBOR ISLAND REACH	23.3	31.0	25.1	1-11	200	0.5	30
GEORGETOWN REACH	16.1	21.1	20.4	1-11	200	2.1	30
FIRST AVE. 8TH AVE. REACH	16.7	13.8	2.3	1-11	150	0.8	20
14TH AVE. BRIDGE REACH	6.4	7.3	6.0	1-11	150	1.8	15
TURNING BASIN	6.1	11.3	9.6	1-11	150	0.1	15

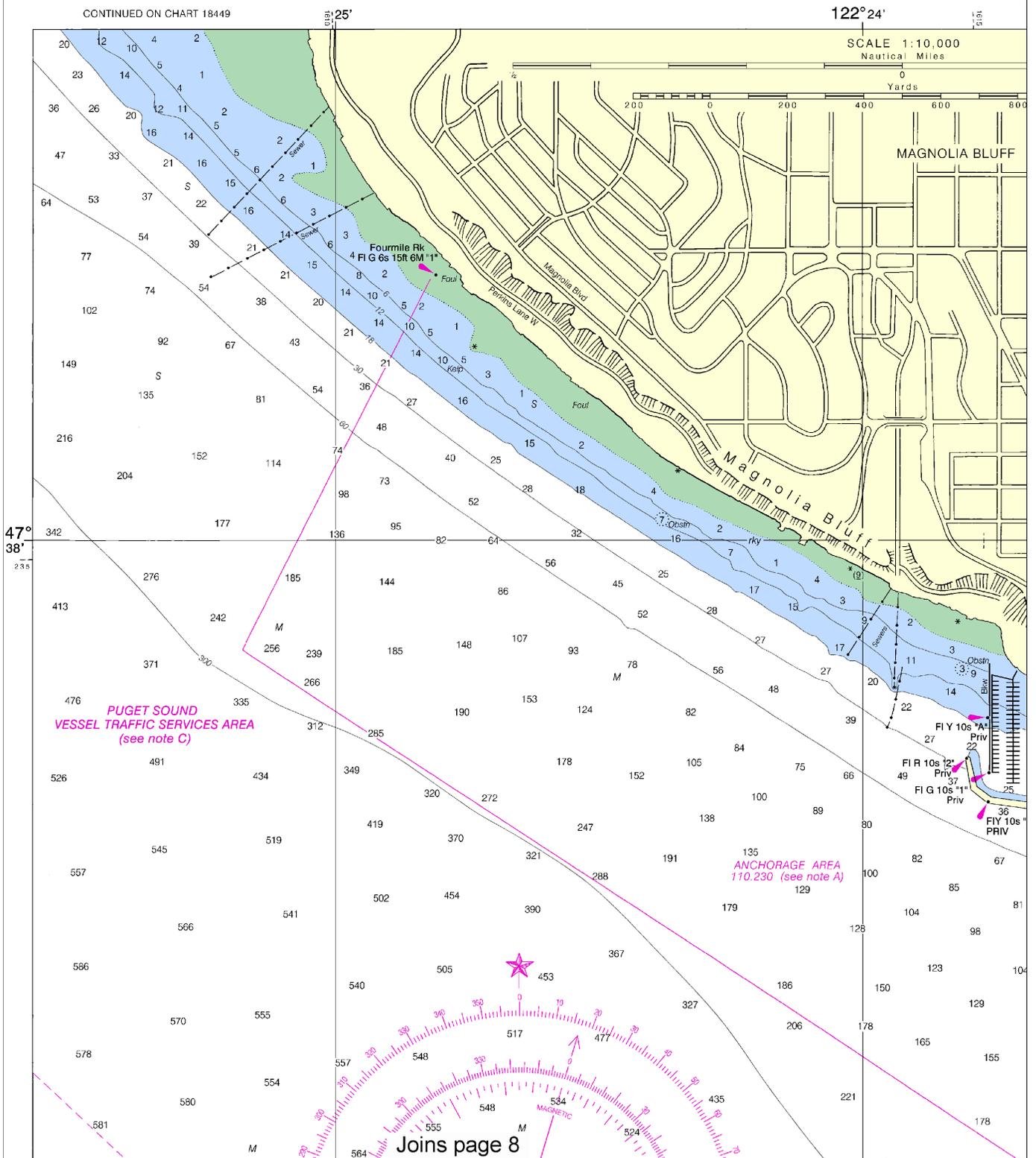
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

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.

PRINT-ON-DEMAND CHARTS

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 2-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at <http://ocedata.nod.noaa.gov/drs/inquiry.aspx>, or OceanGrafix at 1-877-56CHART or <http://www.oceangrafix.com>.

18450

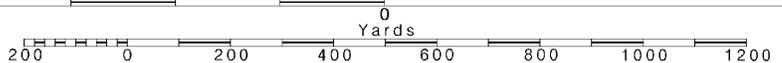


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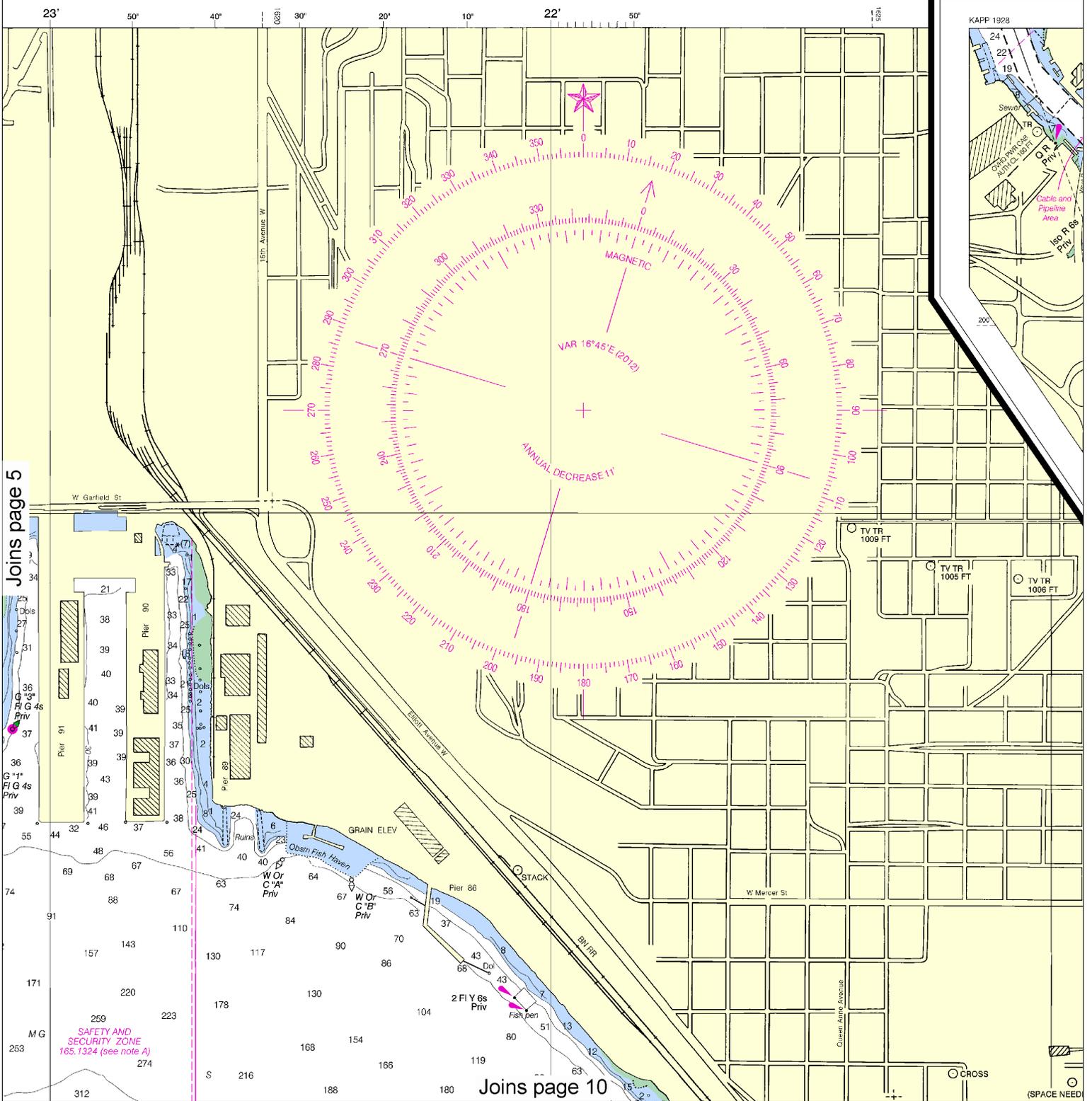
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. —SCALE 1:10,000—  
Nautical Miles

See Note on page 5.

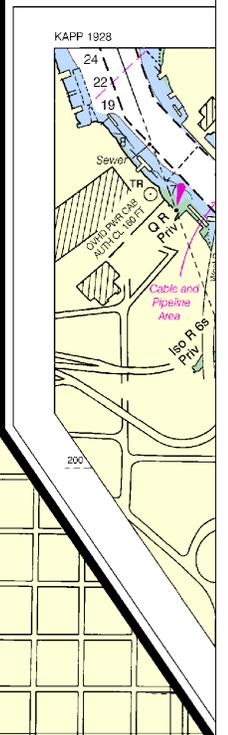






Joins page 5

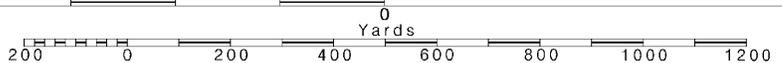
Joins page 10



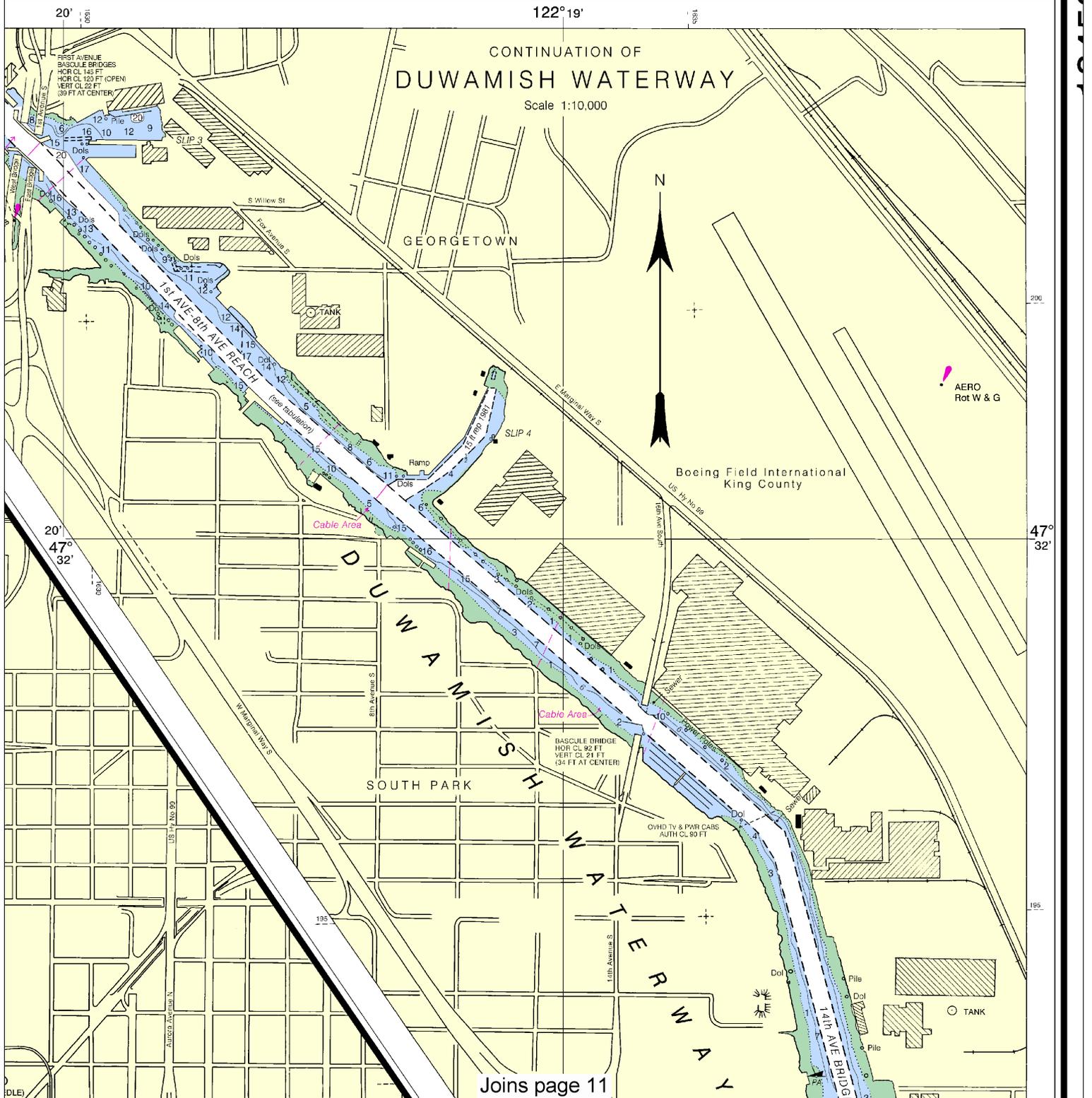
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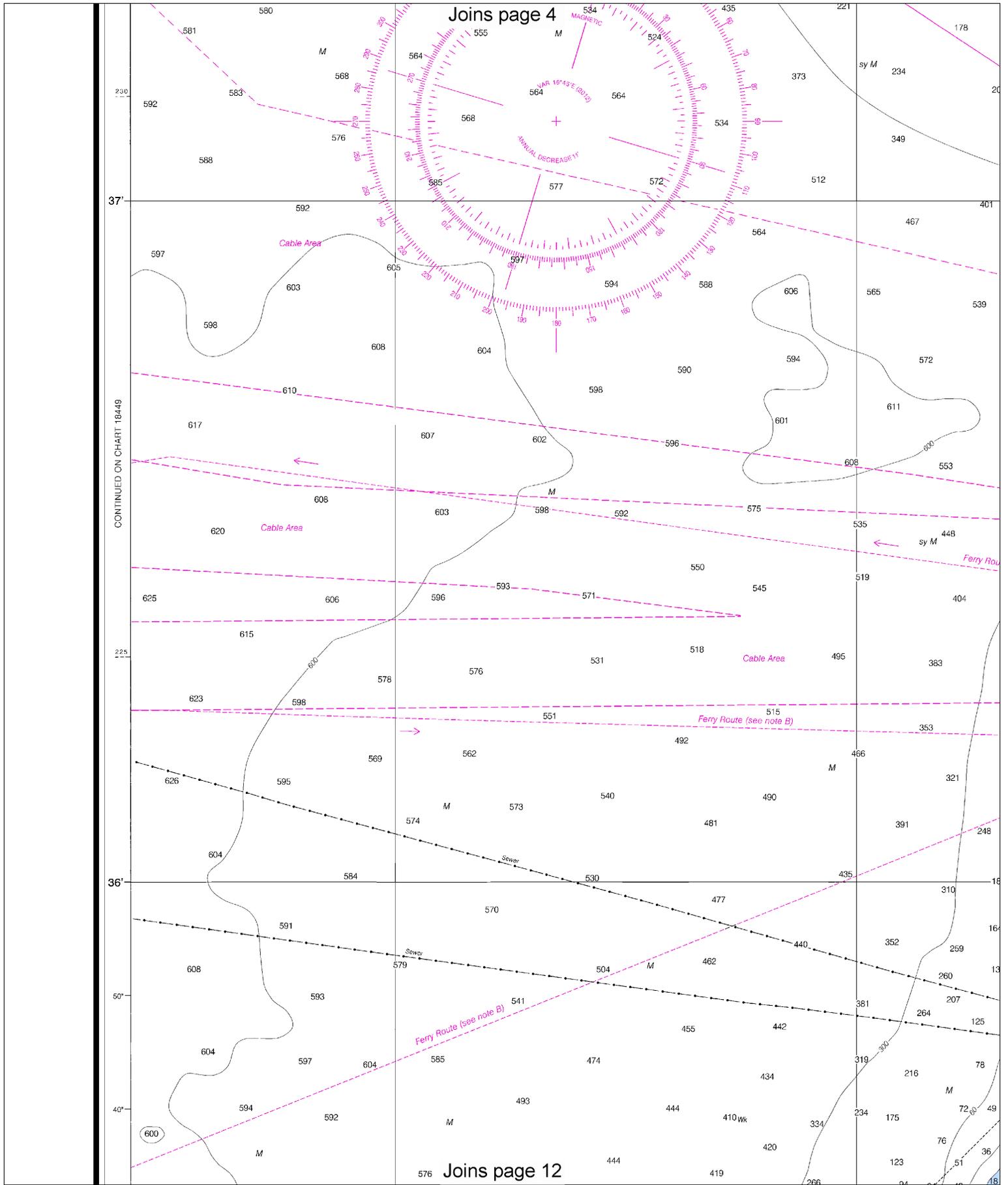
See Note on page 5.



# SOUNDINGS IN FEET



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.

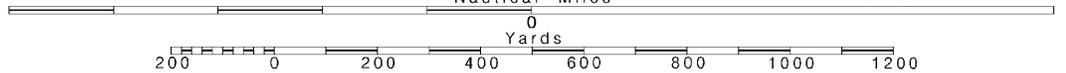


8

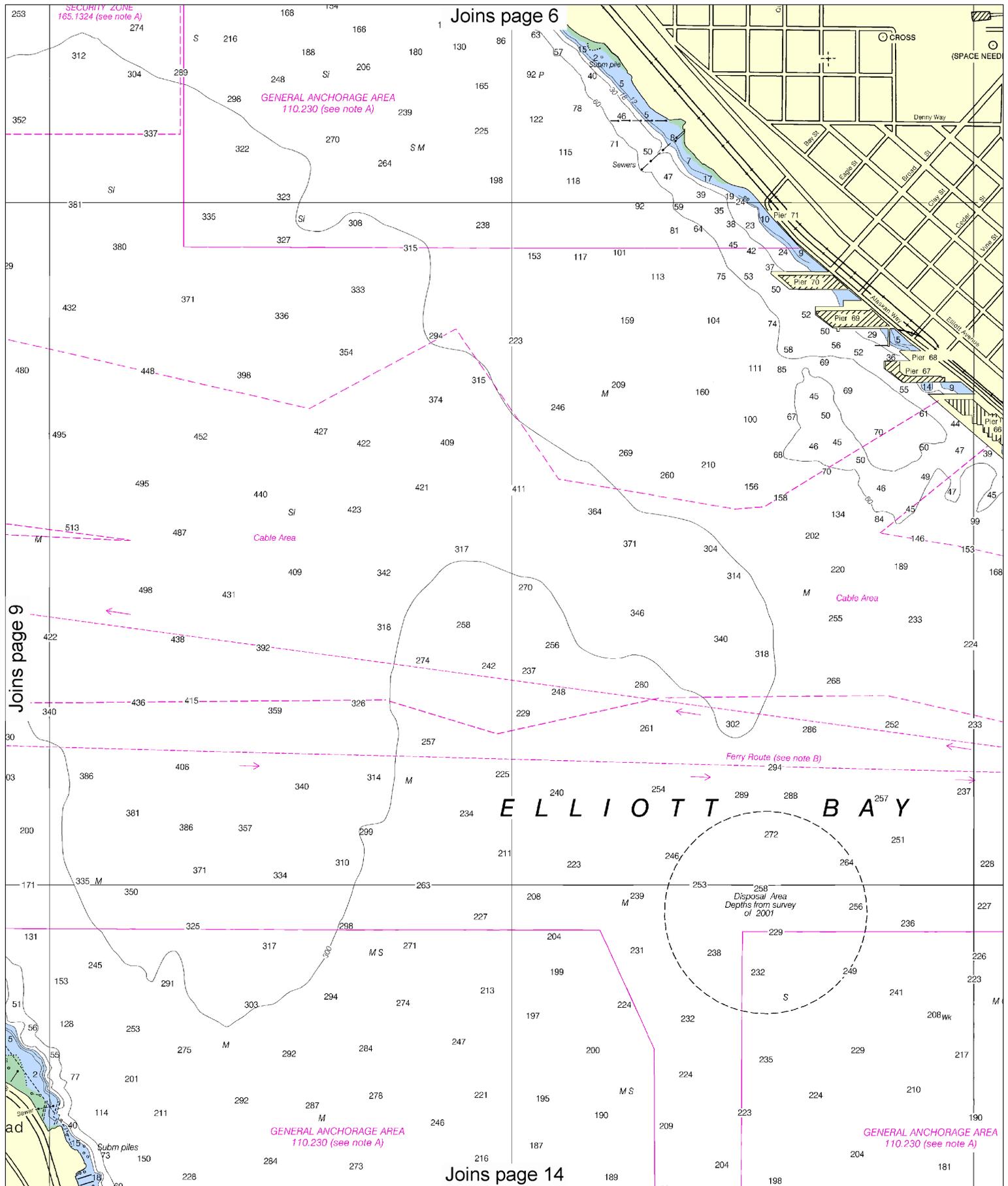
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Printed at reduced scale. — SCALE 1:10,000 —

See Note on page 5.



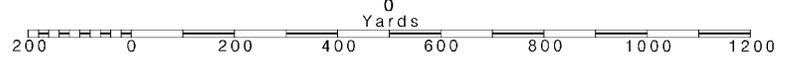




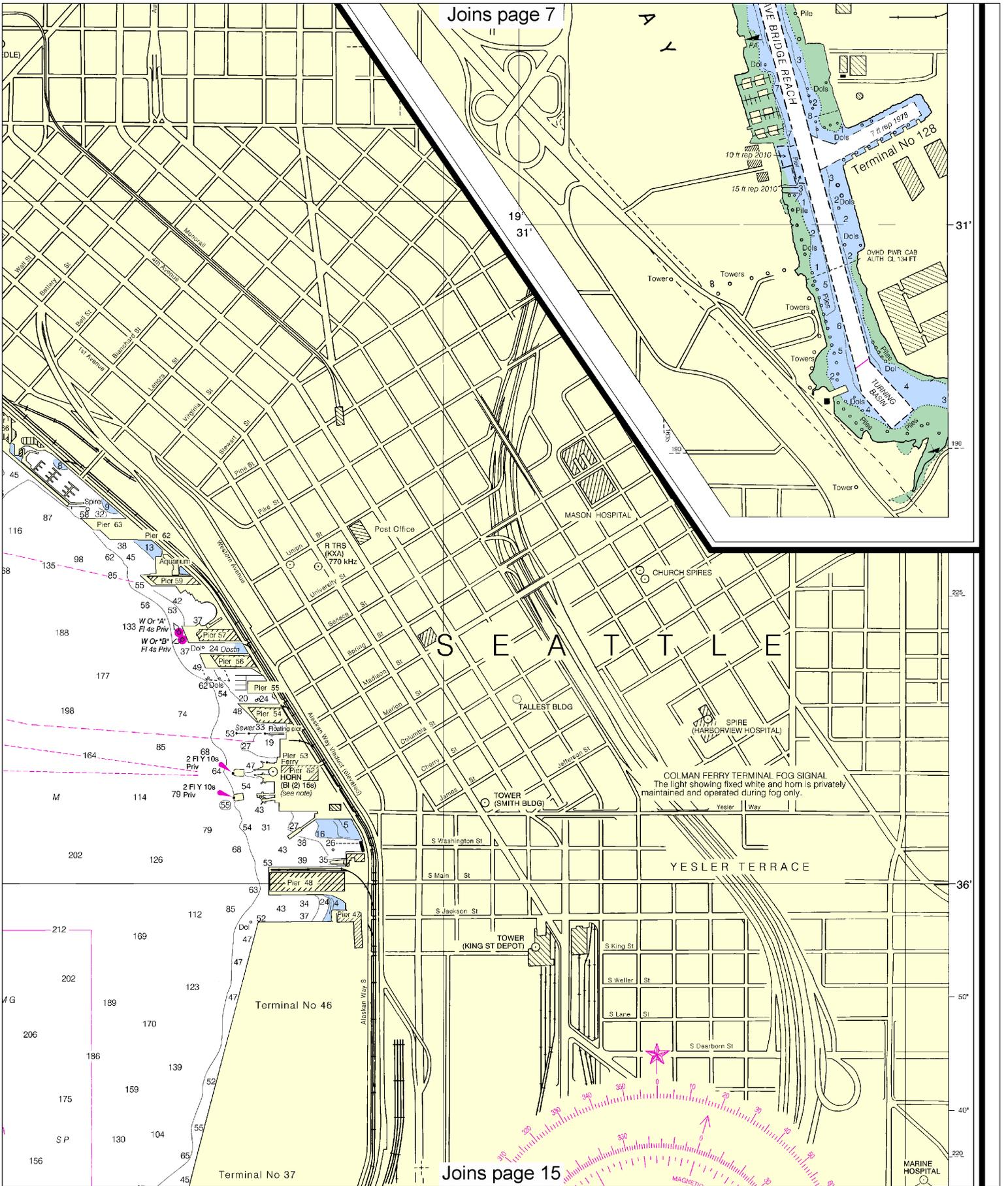
**10**

Note: Chart grid lines are aligned with true north.

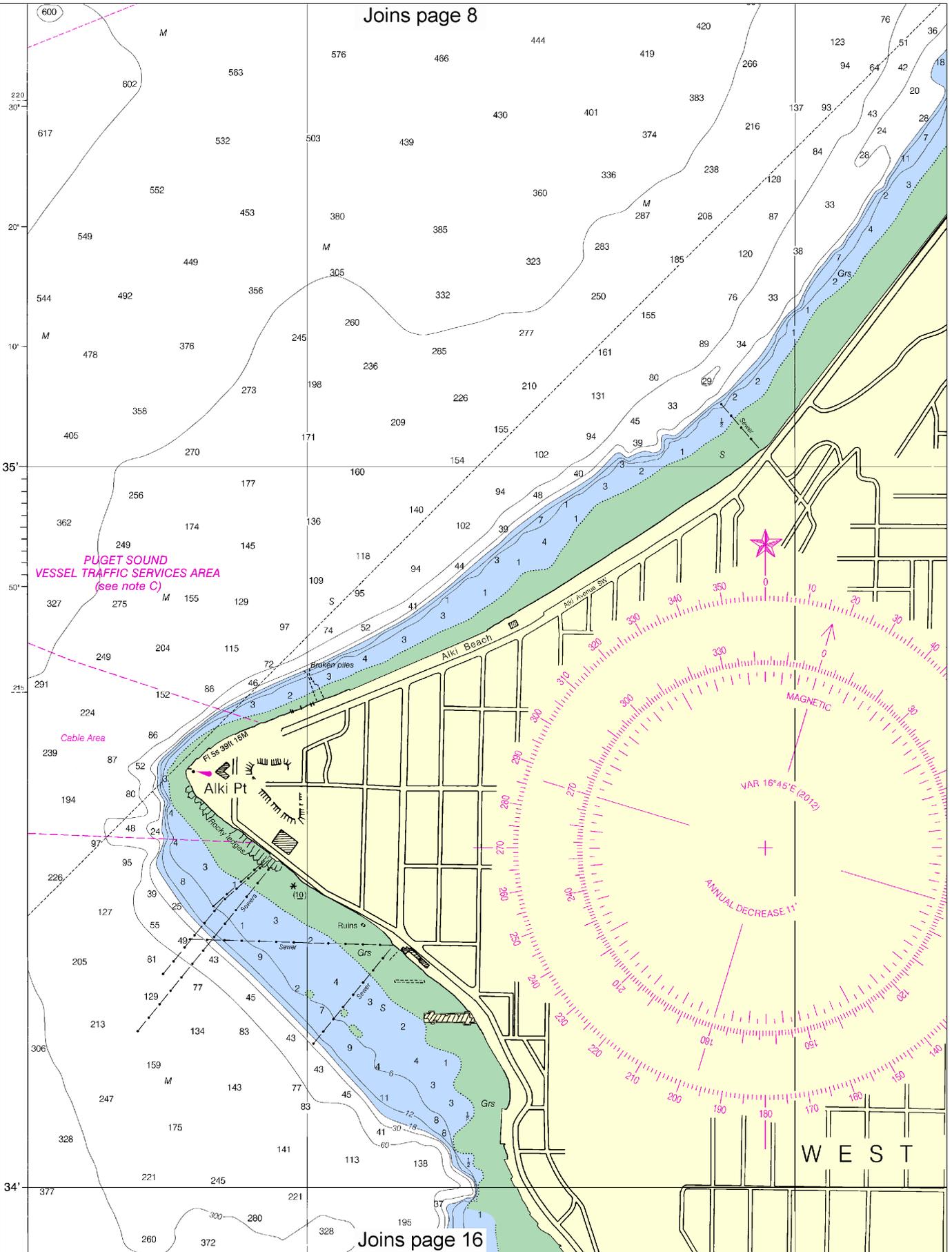
Printed at reduced scale. — SCALE 1:10,000 — See Note on page 5.  
Nautical Miles



Joins page 7



Joins page 15

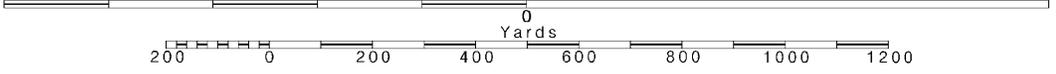


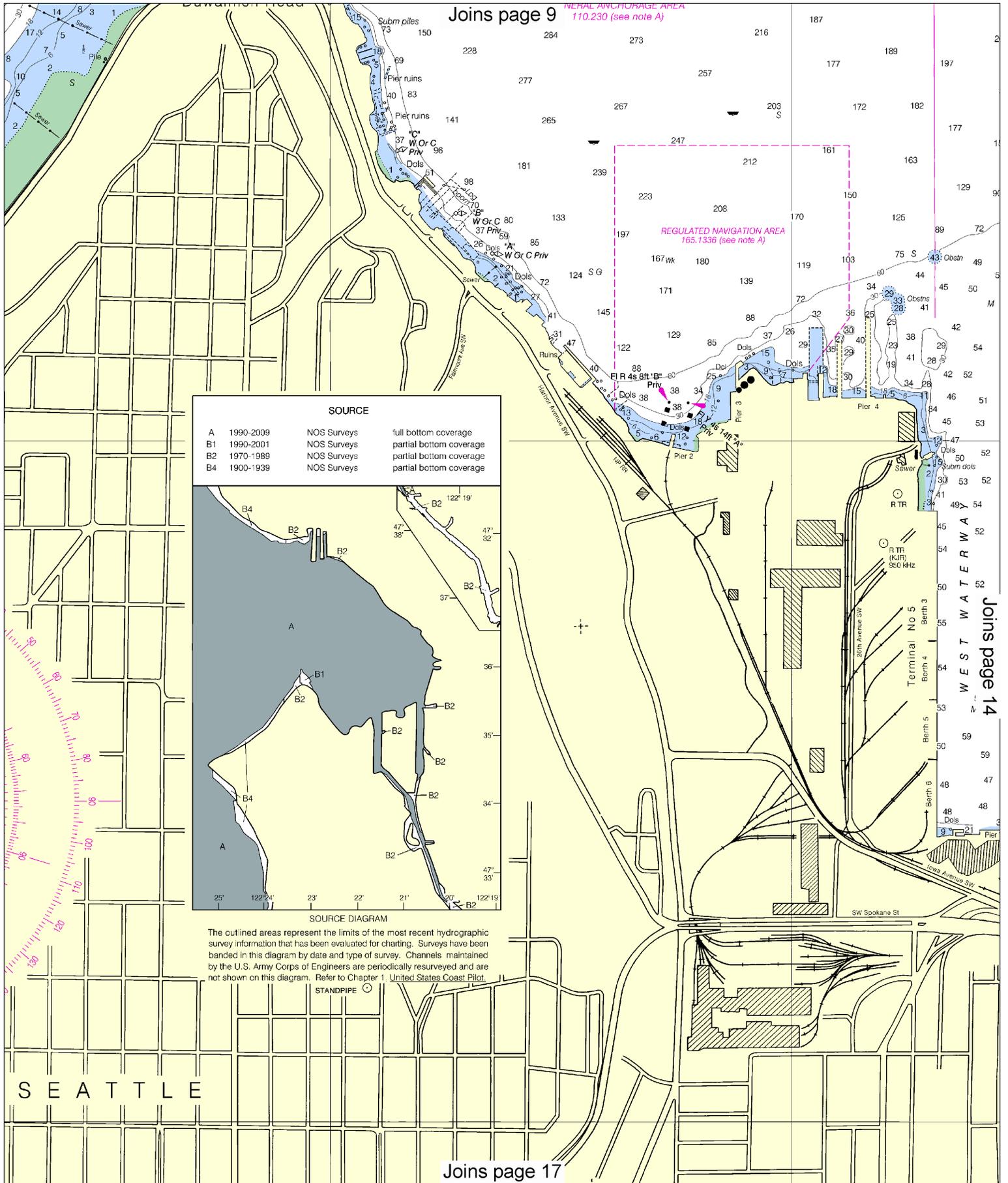
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Note: Chart grid lines are aligned with true north.

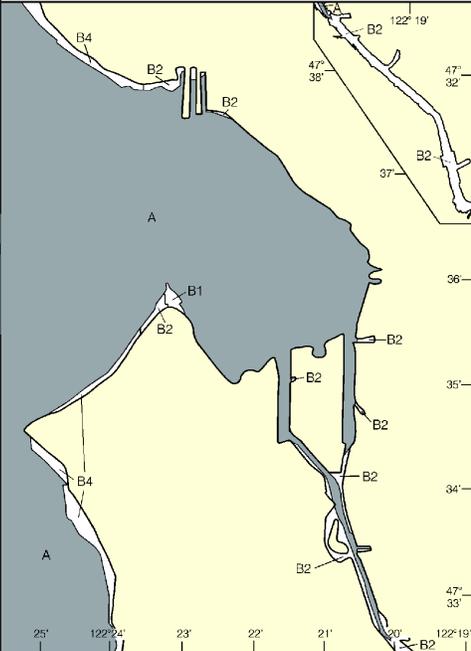
Printed at reduced scale. SCALE 1:10,000

See Note on page 5.



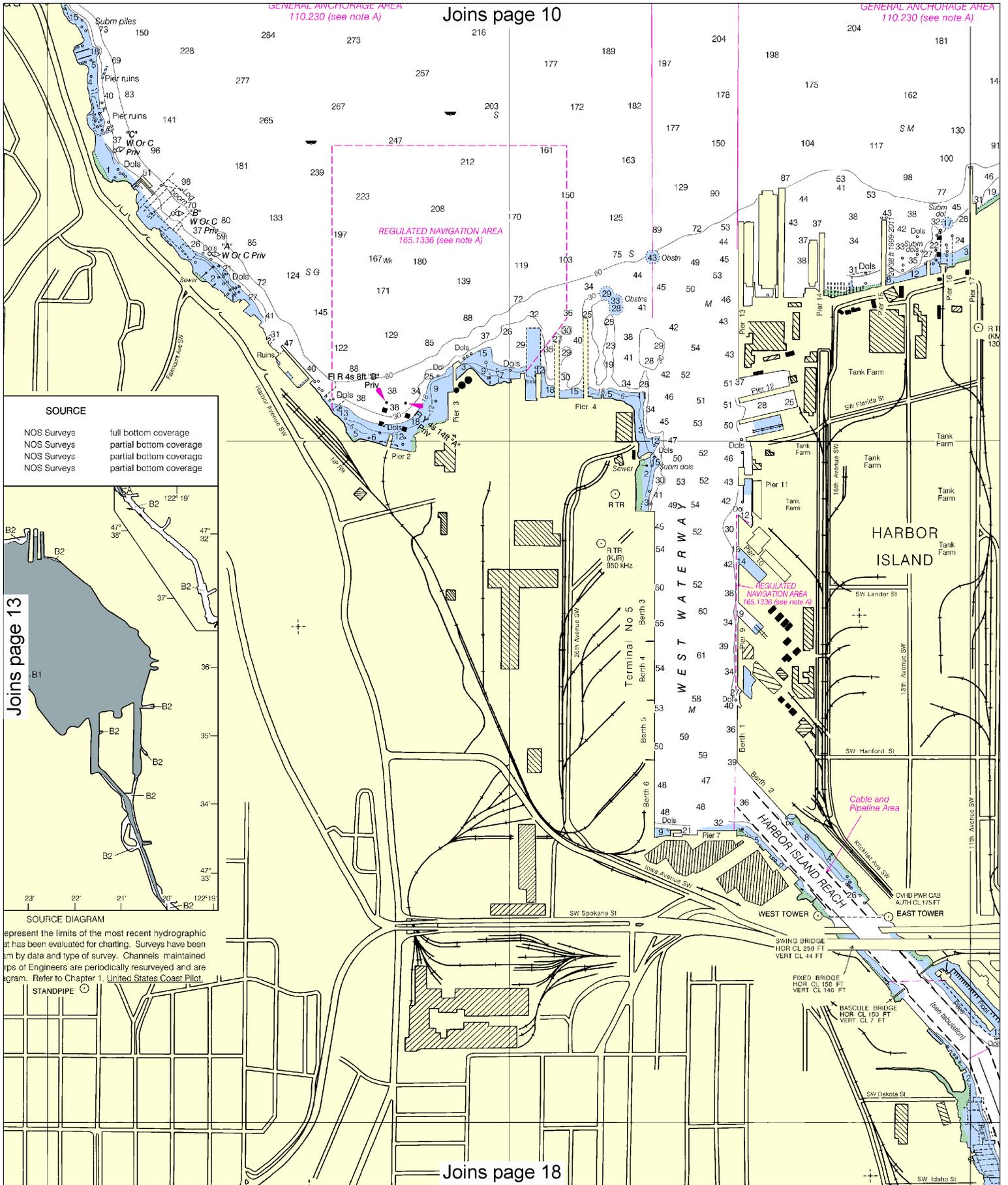


SOURCE		
A	1990-2009	NOS Surveys full bottom coverage
B1	1990-2001	NOS Surveys partial bottom coverage
B2	1970-1989	NOS Surveys partial bottom coverage
B4	1900-1939	NOS Surveys partial bottom coverage



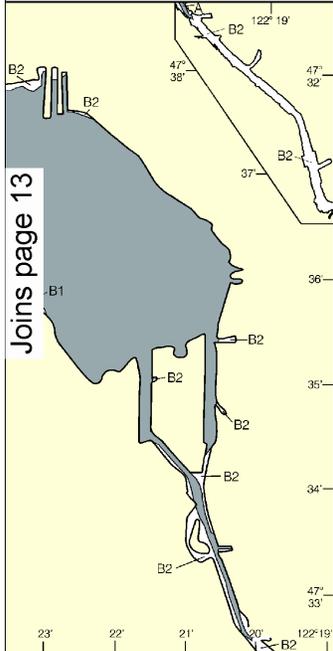
The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on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

STANDPIPE

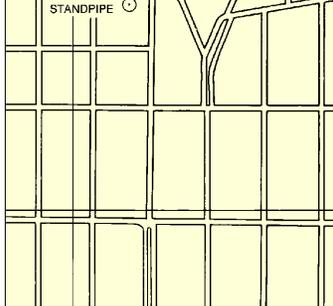


**SOURCE**

NOS Surveys	full bottom coverage
NOS Surveys	partial bottom coverage
NOS Surveys	partial bottom coverage
NOS Surveys	partial bottom coverage



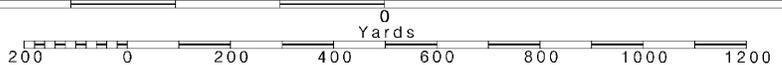
represent the limits of the most recent hydrographic data that has been evaluated for charting. Surveys have been updated by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are shown in blue. Refer to Chapter 1, United States Coast Pilot.

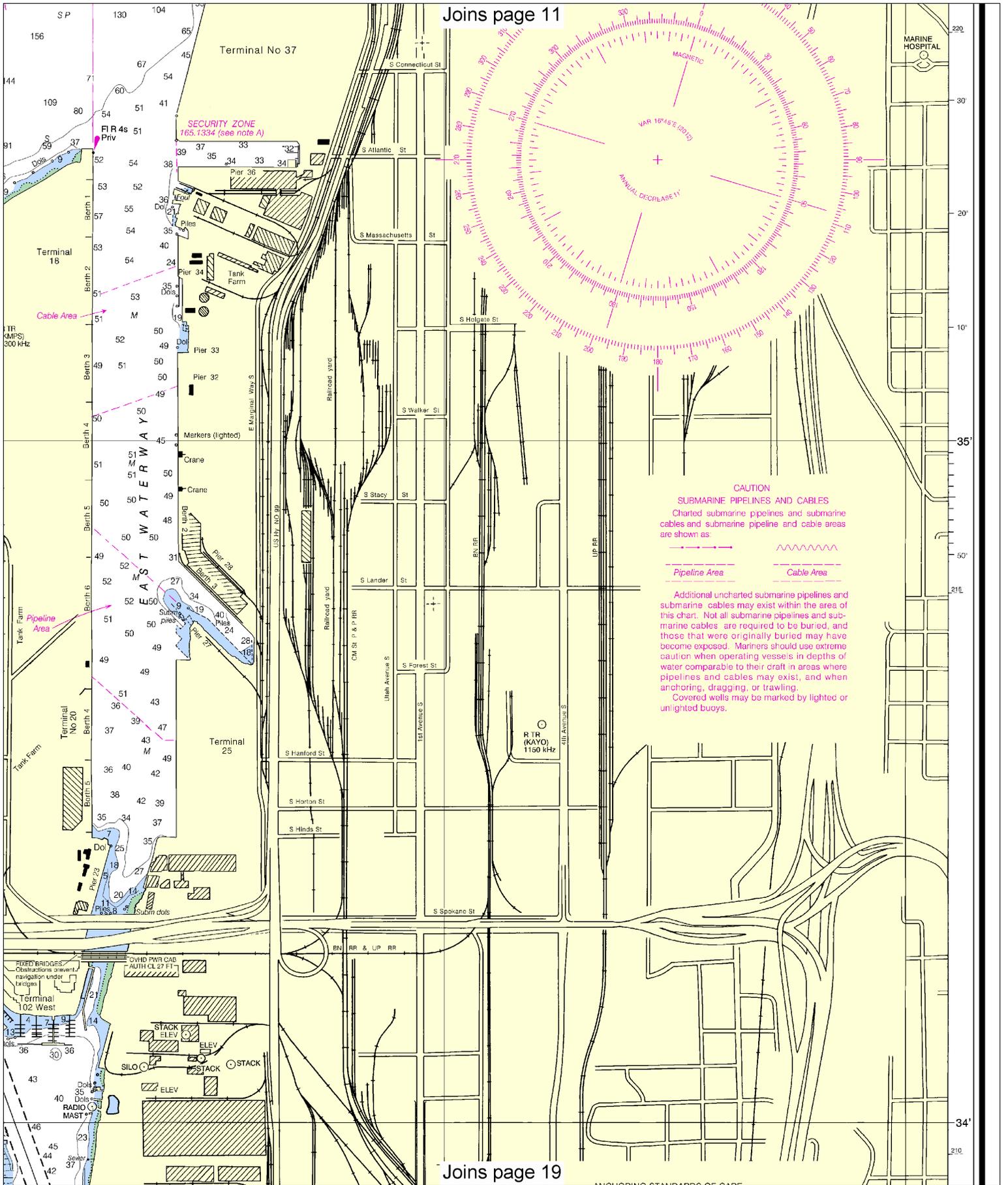


Note: Chart grid lines are aligned with true north.

Printed at reduced scale. — SCALE 1:10,000 —  
Nautical Miles

See Note on page 5.









THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES - WEST COAST

WASHINGTON

# SEATTLE HARBOR

## ELLIOTT BAY AND DUWAMISH WATERWAY

Mercator Projection  
Scale 1:10,000 at Lat 47° 35'

North American Datum of 1983  
(World Geodetic System 1984)

SOUNDINGS IN FEET  
AT MEAN LOWER LOW WATER

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

TIDAL INFORMATION

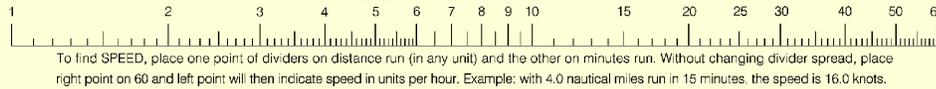
PLACE	Height referred to datum of soundings (MLLW)	Height referred to datum of soundings (MLLW)		
		Mean Higher High Water	Mean High Water	Mean Low Water
Duwamish Waterway, Eighth Ave South	feet	11.1	10.2	2.7
Seattle	feet	11.4	10.5	2.8

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://tidostandcurrents.noaa.gov>. (Sep 2012)

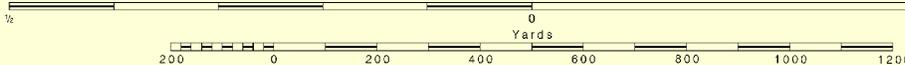
ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)

- 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           | Is isophase              | OBSC obscured          | s seconds          |
| Bn beacon         | LT HC lighthouse         | Oc occulting           | SEC sector         |
| C can             | M nautical mile          | Or orange              | St M stature 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:
- |              |          |         |             |           |
|--------------|----------|---------|-------------|-----------|
| Bls boulders | Co coral | gy gray | Oys oysters | so soft   |
| bk broken    | G gravel | h hard  | Rk rock     | Sh shells |
| Cy clay      | Gr grass | M mud   | S sand      | sy sticky |
- Miscellaneous:
- |                       |                         |                      |                |
|-----------------------|-------------------------|----------------------|----------------|
| AUTH authorized       | Obstn obstruction       | PD position doubtful | Subm submerged |
| ED existence doubtful | PA position approximate | Rep reported         |                |
- (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.

LOGARITHMIC SPEED SCALE



SCALE 1:10,000  
Nautical Miles



NOTE D

TRAFFIC SEPARATION SCHEME

One-way traffic lanes overprinted on this chart are RECOMMENDED for use by all vessels traveling between the points involved. They have been designated to aid in the prevention of collisions in the Puget Sound waters, but are not intended in any way to supersede or alter the applicable Rules of the Road. Separation zones are intended to separate inbound and outbound traffic and to be free of ship traffic. Separation Zones should not be used except for crossing purposes. When crossing traffic lanes and separation zones, use extreme caution.

Precautionary Areas have been established where major lanes merge and cross the traffic separation scheme. It is recommended that vessels proceed with caution in these areas. Wherever practical, vessels entering or leaving the system should do so at these precautionary areas. For more information regarding Traffic Separation Scheme procedures and regulations, see 33 CFR 167 and / or Chapter 2 of the U.S. Coast Pilot.

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.

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.

NOTE C

The U.S. Coast Guard operates a mandatory Vessel Traffic Services (VTS) system in the Puget Sound area. Vessel operating procedures and designated radiotelephone frequencies are published in 33 CFR 161, the U.S. Coast Pilot, and/or the VTS User's Manual. The entire area of the chart falls within the Vessel Traffic Services (VTS) system.

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)

1 FEET

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



UNITED STATES - WEST COAST  
WASHINGTON

# SEATTLE HARBOR

## ELLIOTT BAY AND DUWAMISH WATERWAY

Mercator Projection  
Scale 1:10,000 at Lat 47° 35'

North American Datum of 1983  
(World Geodetic System 1984)

SOUNDINGS IN FEET  
AT MEAN LOWER LOW WATER

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

### TIDAL INFORMATION

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		Mean Higher High Water	Mean High Water	Mean Low Water
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Seattle	feet	11.4	10.5	2.8

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://tidosanocurrents.noaa.gov>. (Sep 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	lao isophase	OBSC obscured	s seconds
Bn beacon	LT HO lighthouse	Oc occulting	SEC sector
C can	M nautical mile	Or orange	St M statute miles
DIA diaphone	m minutes	Q quick	VQ very quick
F fixed	MICRO TR microwave tower	R red	W white
Fl flashing	Mkr marker	Ra Ref radar reflector	WHIS whistle
		R Bn radio beacon	Y yellow

### Bottom characteristics:

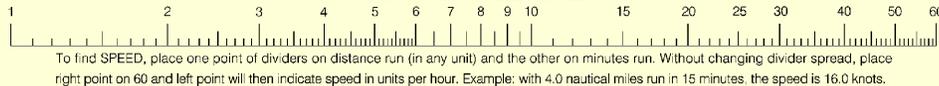
Bls boulders	Co coral	gy gray	Oys oysters	so soft
bk broken	G gravel	h hard	Rk rock	Sh shells
Cy clay	Gra grass	M mud	S sand	sy sticky

### Miscellaneous:

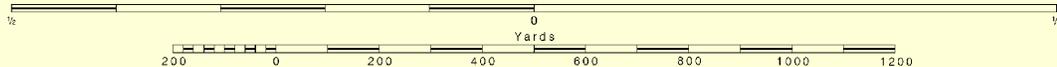
AUTH authorized	Obstr obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rap reported	

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.

### LOGARITHMIC SPEED SCALE



### SCALE 1:10,000



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

FATHOMS	1	2	3
FEET	6	12	18
METERS	1	2	3

COMMENDED for use by... have been designated to sound waters, but are applicable Rules of the... and inbound and outbound traffic... should not be used except... separation zones, use

are major lanes merged... that vessels proceed... entering or leaving the... are information regarding... see 33 CFR 167 and / or

rely on... Light List

Chapter 2, U.S. Code... are published... the... in

Traffic Vessel phone U.S. Coast Guard services (VTS)

als as... in the... ational... 117... mercial... for and

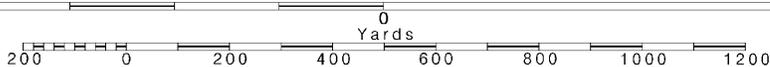
ocation)

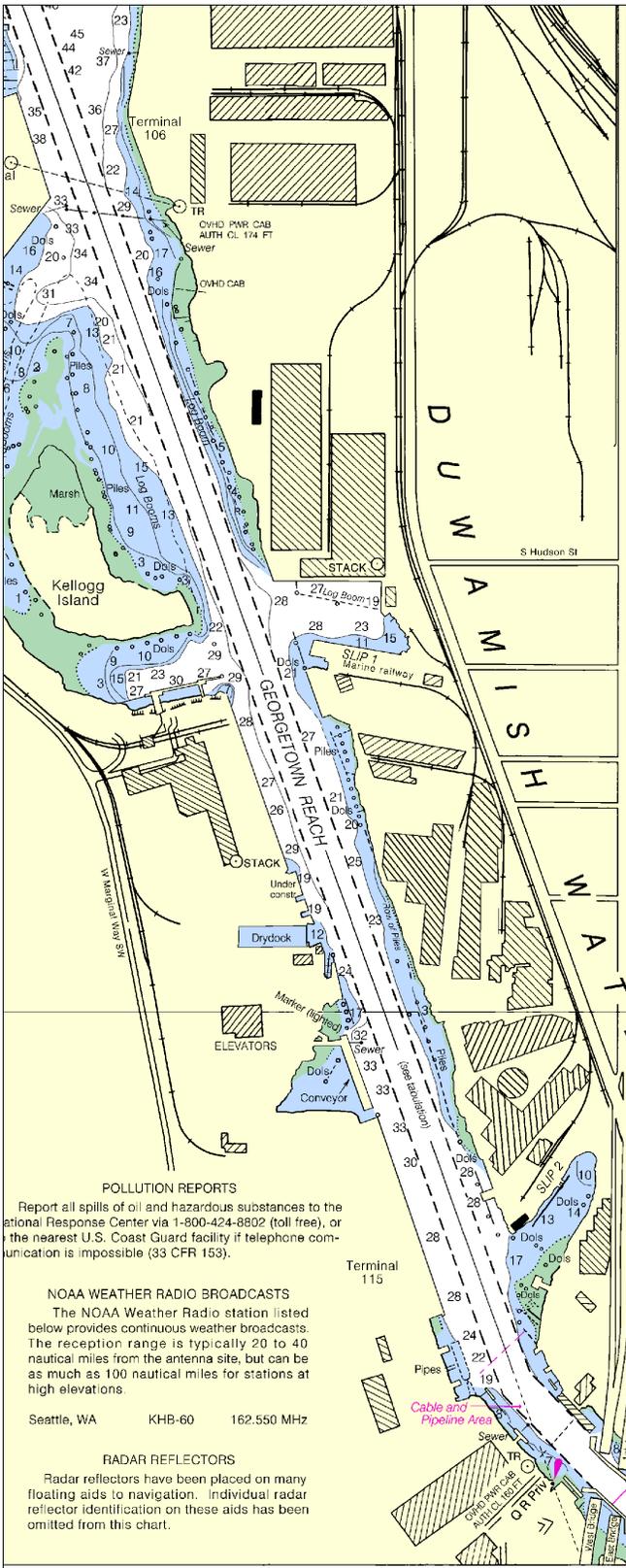
# 18

Note: Chart grid lines are aligned with true north.

Printed at reduced scale. SCALE 1:10,000 Nautical Miles

See Note on page 5.





**ANCHORING STANDARDS OF CARE**  
 Anchoring Standards of Care have been established for this area through the Harbor Safety Plan. These Standards of Care supplement existing regulations with good marine practices for anchoring, and are separated into different weather categories. If your vessel does not have a copy of the Anchoring Standards of Care, you can download one at <http://www.marexps.com> or contact (206) 443-3830.

**DUWAMISH WATERWAY**  
 TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO JAN 2011

NAME OF CHANNEL	CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)			DATE OF SURVEY	PROJECT DIMENSIONS		
	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER		WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
HARBOR ISLAND REACH	23.3	31.0	25.1	1-11	200	0.5	30
GEORGETOWN REACH	16.1	21.1	20.4	1-11	200	2.1	30
FIRST AVE. 8TH AVE. REACH	16.7	13.8	2.3	1-11	150	0.8	20
14TH AVE. BRIDGE REACH	6.4	7.3	6.0	1-11	150	1.8	15
TURNING BASIN	6.1	11.3	9.6	1-11	150	0.1	15

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

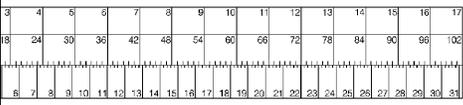
**NOTE B**  
 Mariners are cautioned that the Washington State Ferries may deviate from the published standard routes due to inclement weather, traffic conditions, navigational hazards or other emergency conditions.

**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.

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

**NOAA WEATHER RADIO BROADCASTS**  
 The NOAA Weather Radio station listed below provides 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.  
 Seattle, WA    KHB-60    162.550 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.



**Elliott Bay and Duwamish Waterway**

SOUNDINGS IN FEET - SCALE 1:10,000

**18450**



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.

