THE NATION'S CHARTMAKER SINCE 1807

NAUTICAL CHART 18445

PUGET SOUND

POSSESSION SOUND TO OLYMPIA INCLUDING HOOD CANAL

WASHINGTON

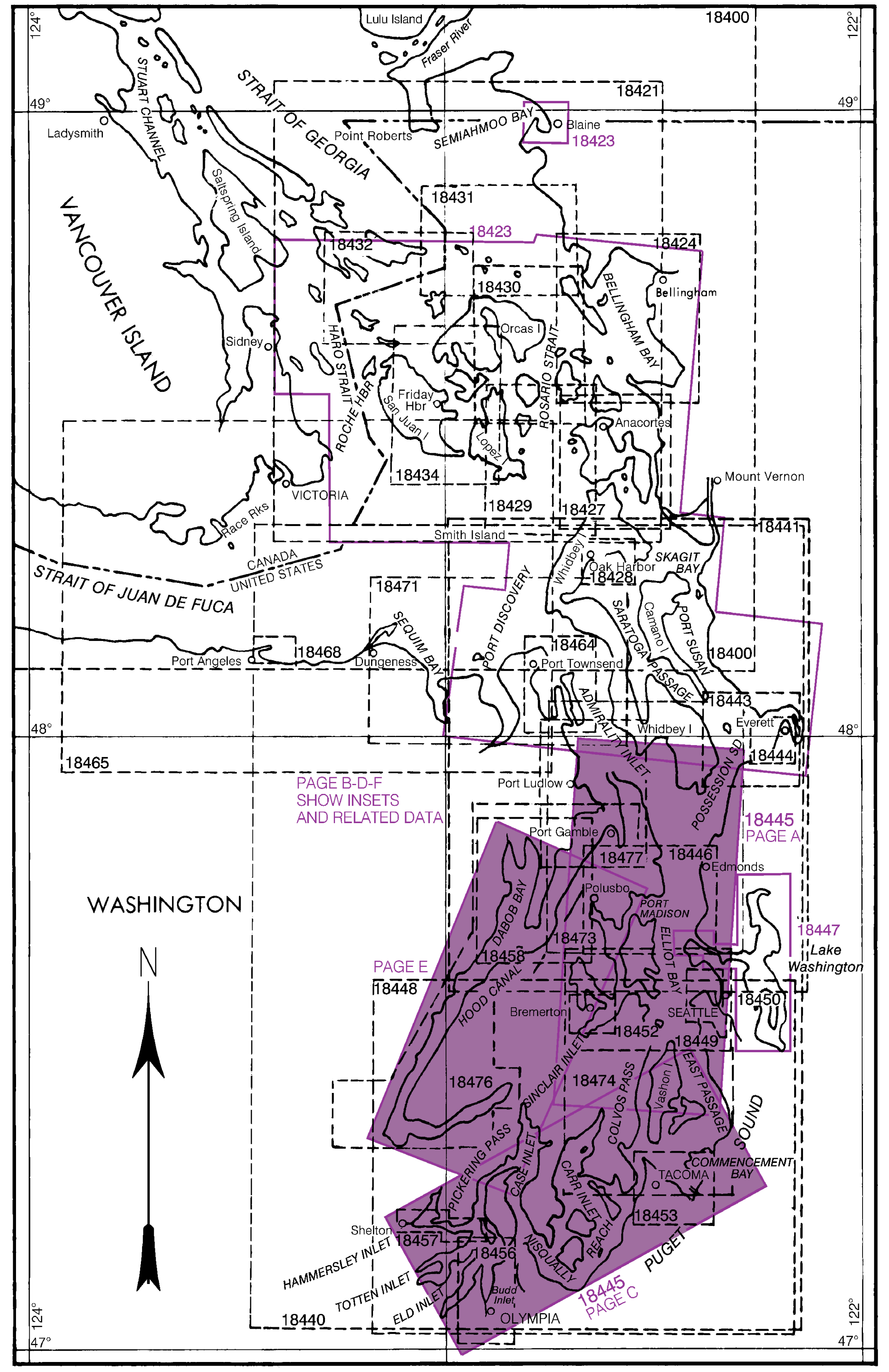
PUBLIC BOATING INSTRUCTION PROGRAMS

The United States Power Squadron and U.S. Coast Guard Auxilliary, national organizations of boatmen, conduct extensive boating instruction programs in communities throughout the United States. For information regarding these educational courses contact the following sources:

USPS - Local Squadron Commander or USPS Headquarters, Post Office Box 30423, Raleigh, North Carolina 27612, 919-821-0281.

USCGAUX - 13th Coast Guard District, 915 Second Ave., Seattle, WA 98174-1067, Tel. 206-553-7390 or USCG Headquarters (G-BAU), Washington, D.C. 20593-0001.

NAUTICAL CHART DIAGRAM



18445

MARINE WEATHER FORECASTS

NATIONAL WEATHER SERVICE	TELEPHONE NUMBER	OFFICE HOURS
Seattle, Washington	(206) 526-6087	8am to 3pm M-F*

*Recorded forecasts only at other times.

NOAA WEATHER RADIO BROADCASTS

CITY	STATION	FREQ. (MHz)	BROADCAST TIMES
Seattle, Wash.	KHB-60	162.55	24 hours daily
Olympia, Wash.	WXM-62	162.475	24 hours daily

BROADCASTS OF MARINE WEATHER FORECASTS AND WARNINGS BY MARINE RADIOTELEPHONE STATIONS

CITY	STATION		BROADCAST TIMES	SPECIAL WARNING
Seattle, Wash.	NMW-43	157.1 MHz	10:30 AM & PM	*On receipt
Port Angeles, Wash.	NOW	2670 kHz	10:15 AM & PM	*On receipt
		157.1 MHz	9:33 AM & PM	*On receipt

* Preceded by announcement on 2182 kHz and 156.8 MHz

Distress calls for small craft are made on 2182 kHz or channel 16 (156.80 MHz) VHF.

			DEPTHS		SERVICES					BOAT RENTAL					SUPPLIES			
NO	SMALL CRAFT FACILITY	CHART SIDE	APPROACH-FEET (REPORTED)	ALONGSIDE-FEET (REPORTED)	BERTHS-MOORINGS-ELECTRICITY (TRANSIENTS)	RAMP SURFACED-NATURAL	REPAIRS HULL-MOTOR-RADIO	MARINE RAILWAY-FEET	LIFT CAPACITY-TONS	CANOE-ROW-MOTOR-KAYAK	CHARTER-HOUSE-SAIL	FOOD-LODGING-CAMPING	TOILETS-SHOWERS-LAUNDRY PUMP-OUT STATION	WINTER STORAGE WET-DRY	NAUTICAL CHART SALES	WATER-ICE	GROCERIES-HARDWARE	BAIT-TACKLE	DIESEL OIL-GASOLINE
1	BREMERTON MARINA	B	65	10	BE	S					C	FL	TSLP			WI	G		DG
6	PORT LUDLOW MARINA	D	30	15	BE					M		FL	TSLP			WI	GH	B	DG
18	PORT OF EDMONDS	A	15	9	BE		HMR		50		C	FL	TSLP	D	C	WI	GH	BT	DG
19	PORT OF KINGSTON	D	12	6	BME	S						FL	TSLP	W	C	WI	GH	BT	DG
23	SHILSHOLE BAY MARINA	A	25	15	BE	S	HM					F	TSLP	WD		WI	GH	BT	DG
31	ELLIOTT BAY MARINA	A	23	10	B		MR					F	TSLP			WI	G	BT	DG
43A	PORT OF POULSBO MARINA	A	15	7	BE	S	MR			MK		FL	TSLP		C	WI	GH	BT	DG
45	PORT OF BROWNSVILLE MARINA	A	20	8	BE	S						FC	TSLP			WI	GH	BT	DG
50	PORT ORCHARD MARINA	B	35	15	BME	S	HMR	75	25			FL	TSLP		C	WI	G	BT	DG
58A	CITY OF DES MOINES MARINA	C	13	13	BE		HMR		25			FL	TSP	WD		WI	G	B	DG
64	DES MOINES MARINA	C	13	15	BE		HMR		20			F	TSP	WD		W			DG
70	BREAKWATER MARINA	B	14	14	BE	S	MR					F	TSLP	W	C	WI	GH	B	DG
70B	PORT DEFIANCE MARINA	B	16	16	BE	S	MR		4	M		F	TP	W	C	WI	G	BT	G
93	ZITTELS MARINA	C	8	8	BE	S		48	3	M			TP	WD		WI		BT	DG
98	JARRELL COVE MARINA	C	32	22	BME		M			R		FC	TSLP		C	WI	GH	BT	DG
102	PLEASANT HARBOR MARINA	E	8	30	BE	S					H	FLC	TSLP	W		WI	GH	BT	DG

THE LOCATIONS OF THE ABOVE PUBLIC MARINE FACILITIES ARE SHOWN ON THE CHART BY MAGENTA NUMBERS AND LEADERS.
THE TABULATED "APPROACH-FEET (REPORTED)" IS THE DEPTH AVAILABLE FROM THE NEAREST NATURAL OR DREDGED CHANNEL TO THE FACILITY.
THE TABULATED "PUMP-OUT STATION" IS DEFINED AS FACILITIES AVAILABLE FOR PUMPING OUT BOAT HOLDING TANKS.

SCALE 1:80,000
Nautical Miles

LOGARITHMIC SPEED SCALE

To find SPEED, place one point of dividers on distance run (in any unit) and the other on minutes run. Without changing divider spread, place right point on 60 and left point will then indicate speed in units per hour. Example: with 4.0 nautical miles run in 15 minutes, the speed is 16.0 knots.

1 2 3 4 5 6 7 8 9 10 15 20 25 30 40 50 60

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ED. NO. 34
NSN 7642014011607
NGA REFERENCE NO. 18XCO18445

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

18445 EDITION 34 Apr. 2012
Last Correction: 4/13/2012. Cleared through:
LNM: 4015 (10/6/2015), NM: 4215 (10/17/2015), CHS: 0715 (7/31/2015)

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NAUTICAL CHART 18445

POSSESSION SOUND TO OLYMPIA Including Hood Canal

WASHINGTON

Mercator Projection at Scale 1:80,000

North American Datum of 1983
(World Geodetic System 1984)

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

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

HEIGHTS
Heights in feet above Mean High Water.

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

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

CAUTION
This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

COURSES
Distances are given in International Nautical Miles. Courses are TRUE and must be CORRECTED for any variation and compass deviation.

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

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

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

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 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.

For Symbols and Abbreviations see Chart No. 1

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.

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

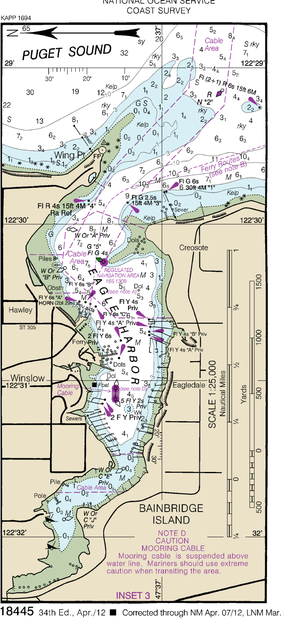
RADAR REFLECTORS
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

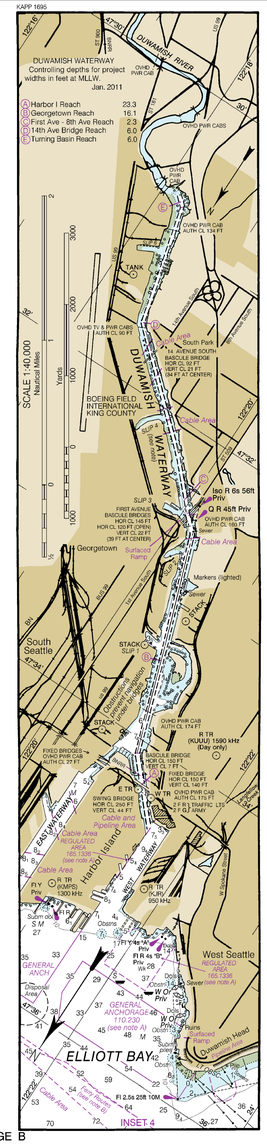
CAUTION
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

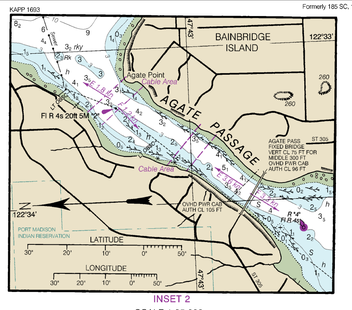
CAUTION
Small craft should stay clear of large commercial and government vessels even if small craft have the right-of-way.

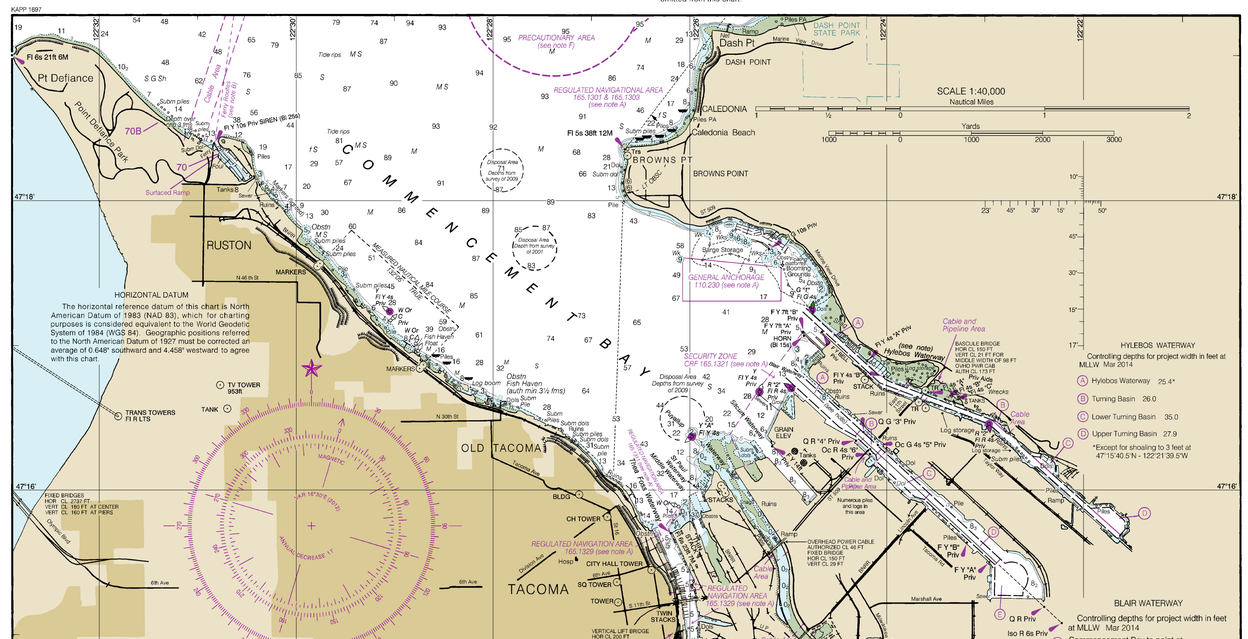
CAUTION
Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

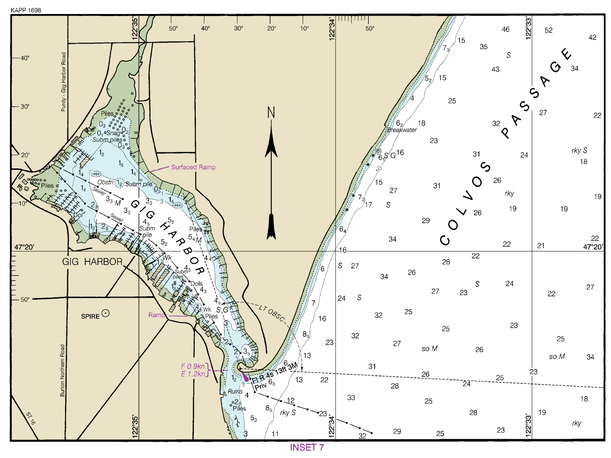
CAUTION
All craft should avoid areas where the skin divers flag, a red square with a diagonal white stripe, is displayed.

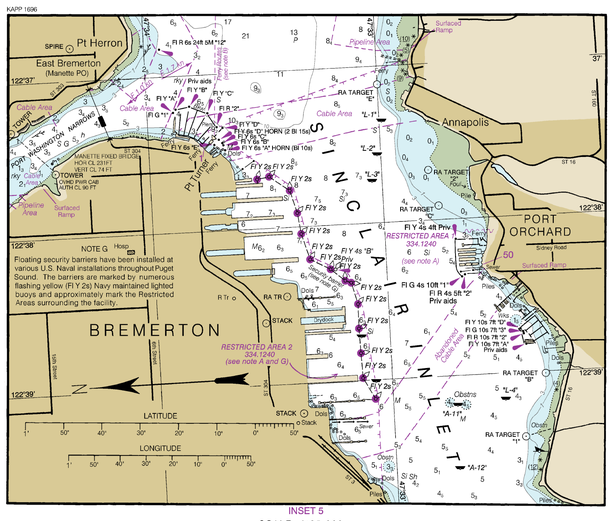


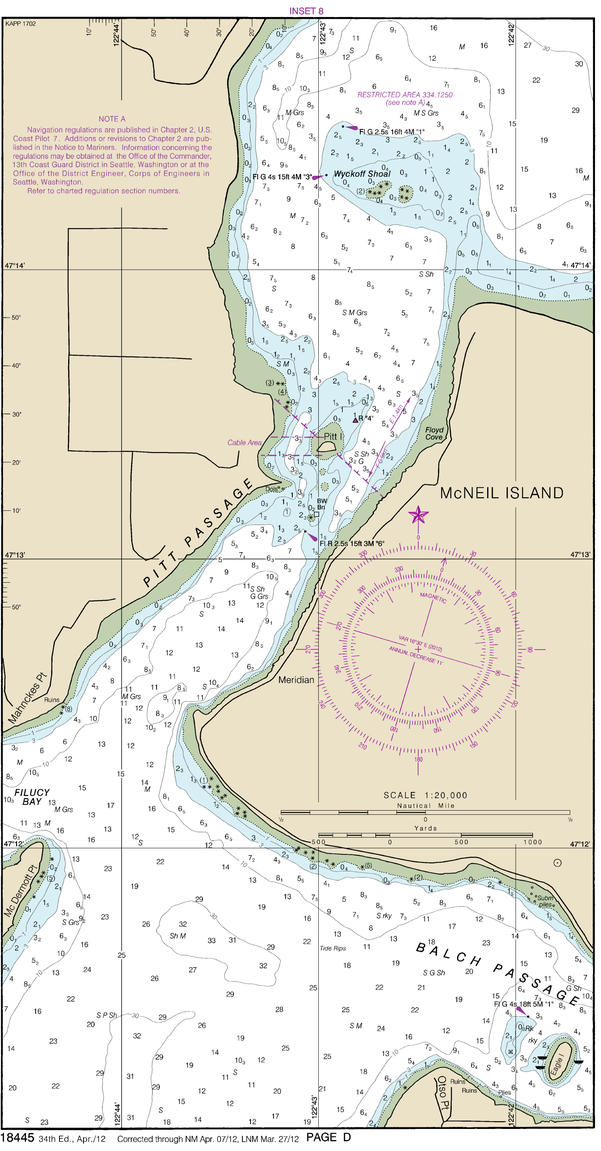


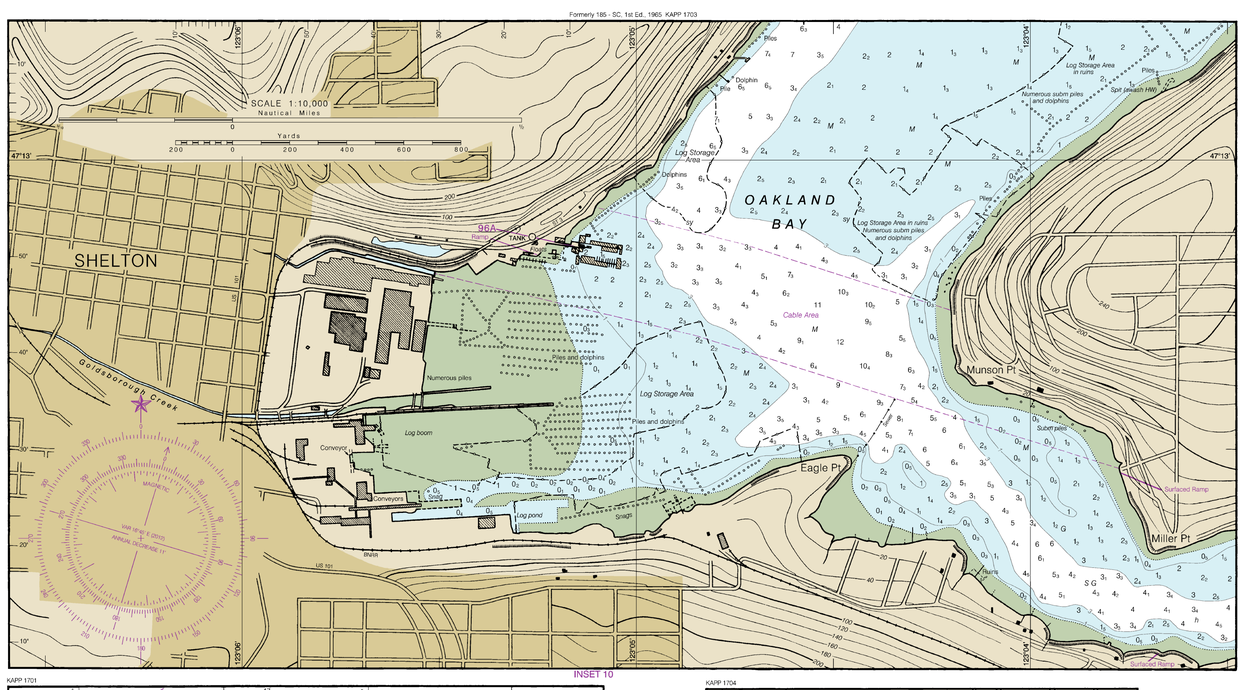


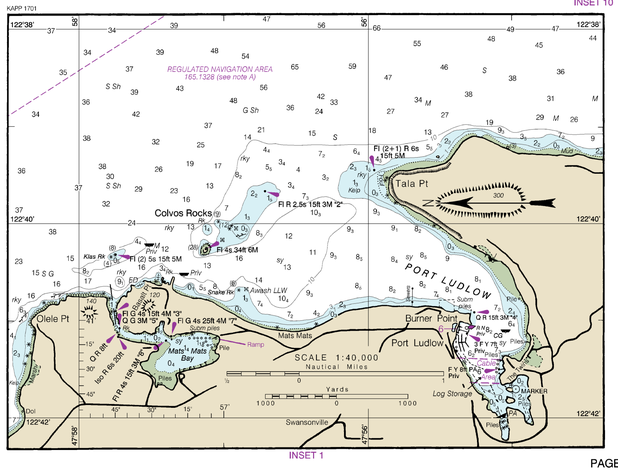


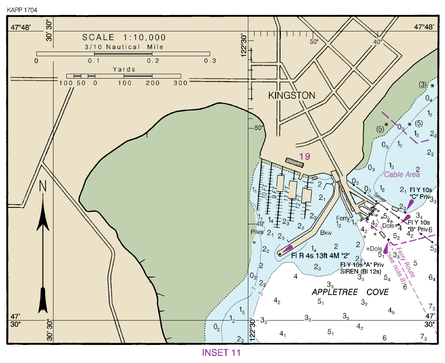


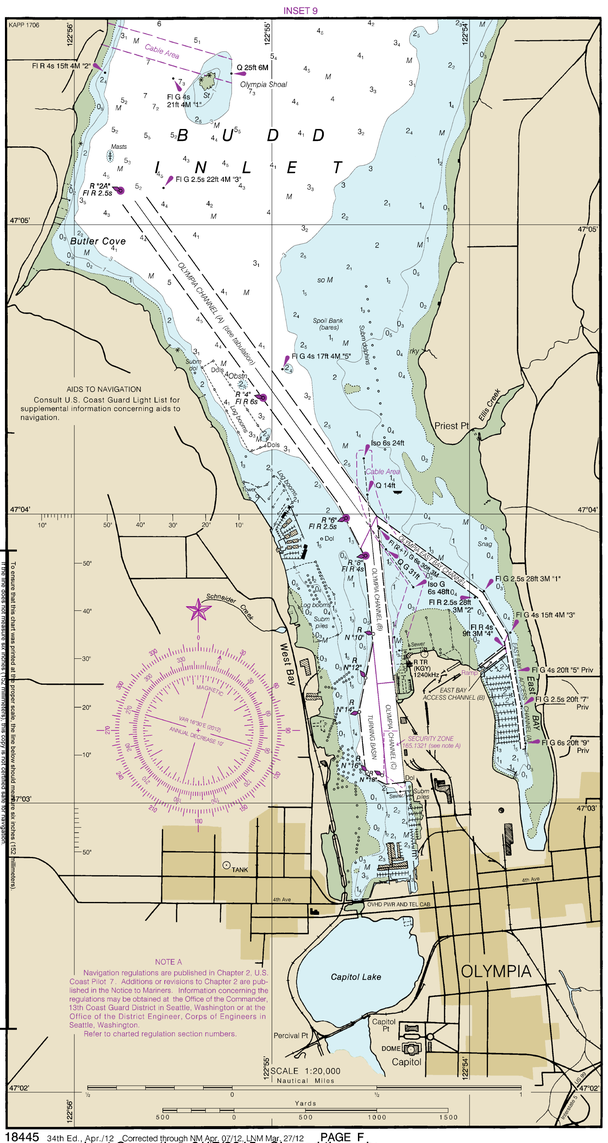












TIDAL INFORMATION
Near real time water level data, predictions and weather data are available via the Internet at http://tidesandcurrents.noaa.gov. Annual predictions of the rise and fall of the tides are available in printed form from private sector printers.

OLYMPIA HARBOR CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF AUG 2014 AND SURVEYS TO OCT 2013

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
OLYMPIA CHANNEL (A) STA. 0+00 TO STA. 102+56	28.0A	31.0A	30.0A	30.0A	10-13	500	1.90B	30
OLYMPIA CHANNEL (B) STA. 102+56 TO STA. 135+30	28.5	30.6	29.8	16.3	10-13	350	.60	30
OLYMPIA CHANNEL (C) STA. 135+30 TO STA. 156+50	23.8	31.3	28.9	29.1	10-13	371	.40	30
TURNING BASIN STA. 136+81 TO STA. 156+50	22.6	22.6	22.6	22.6	10-13	429	.60	30
OLYMPIA EAST BAY CHANNEL STA. 102+56 TO STA. 135+30	13.6	14.3	14.3	9.9	10-13	150	.70	13
EAST BAY ACCESS CHANNEL (A) STA. 37+30 TO STA. 67+35	9.0A	11.0A	11.0A	12.0A	10-13	100	.60B	13
EAST BAY ACCESS CHANNEL (B) STA. 38+67 TO STA. 40+66	4.4	4.4	4.4	4.4	10-13	176	.10	13

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION
A. TABULATION VALUES SELECTED BY THE OFFICE OF COAST SURVEY.
B. FULL EXTENT OF CHANNEL IS NOT SHOWN DUE TO SIGNIFICANT SHOALING.

RULES OF THE ROAD
(ABRIDGED)
Motorless craft have the right-of-way in almost all cases. Sailing vessels and motorboats less than sixty-five feet in length shall not hamper, in a narrow channel, the safe passage of a vessel which can navigate only inside that channel.
A motorboat being overtaken has the right-of-way.
Motorboats approaching head to head or nearly so should pass port to port.
When motorboats approach each other at right angles or obliquely, the boat on the right has the right-of-way in most cases.
Motorboats must keep to the right in narrow channels when safe and practicable.
Mariners are urged to become familiar with the complete text of the Rules of the Road in U.S. Coast Guard publication "Navigation Rules."

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
WARNINGS CONCERNING LARGE VESSELS
The "Rules of the Road" state that recreational boats shall not impede the passage of a vessel that can navigate only within a narrow channel or fairway. Large vessels may appear to move slowly due to their large size but actually transit at speeds in excess of 12 knots, requiring a great distance in which to maneuver or stop. A large vessel's superstructure may block the wind with the result that sailboats and sailloads may unexpectedly find themselves unable to maneuver. Bow and stern waves can be hazardous to small vessels. Large vessels may not be able to see small craft close to their bows.

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

Pipeline Area — Cable Area

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.

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

SAFETY HINTS
1. Keep your chart up to date by applying all Notices to Mariners corrections when you receive them.
2. Read carefully all notes printed on your chart, each is vital to your safety afloat.
3. Learn the meaning of each symbol and abbreviation on your chart from Chart No. 1.
4. The compass on your chart shows the variation from true north, however you must also correct your bearing for the deviation of your boat.
5. Constantly use your chart from the beginning to the end of each trip. Keep in mind the orientation of your boat with respect to the chart.
6. Maintain your position on the chart by relating charted features with those you can identify in your surroundings.

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

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

Bottom characteristics:

Blds 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	Obstn obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rep reported	

Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
Rocks that cover and uncover, with heights in feet above datum of soundings.

Currents: 6 0.6 kn — ebb current with average maximum velocity of 0.6 knot.
2 0.5 kn — flood current with average maximum velocity of 0.5 knot.

FACILITIES
Locations of public marine facilities are shown by large magenta numbers with leaders and refer to the facility tabulation.

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://ocsdata.ncd.noaa.gov/idrs/inquiry.aspx, or OceanGrafix at 1-877-56CHART or http://www.oceangrafix.com.

DISTANCE OF THE HORIZON
The following table gives the distance, in nautical miles, of the visible horizon for various heights of the eye above sea level. The actual distance varies somewhat as refraction changes.

Height, feet	Nautical miles	Height, feet	Nautical miles	Height, feet	Nautical miles	Height, feet	Nautical miles	Height, feet	Nautical miles	Height, feet	Nautical miles
1	1.1	6	2.8	11	3.8	16	4.6	21	5.2	26	5.8
2	1.6	7	3.0	12	4.0	17	4.7	22	5.4	27	5.9
3	2.0	8	3.2	13	4.1	18	4.9	23	5.5	28	6.1
4	2.3	9	3.4	14	4.3	19	5.0	24	5.6	29	6.2
5	2.6	10	3.6	15	4.4	20	5.1	25	5.7	30	6.3

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.

18445 34th Ed., Apr./12 Corrected through NM Apr. 07/12, LNM Mar. 27/12 PAGE F
Last Correction: 9/17/2015. Cleared through:
LNM: 4015 (10/6/2015), NM: 4215 (10/17/2015), CHS: 0715 (7/31/2015)

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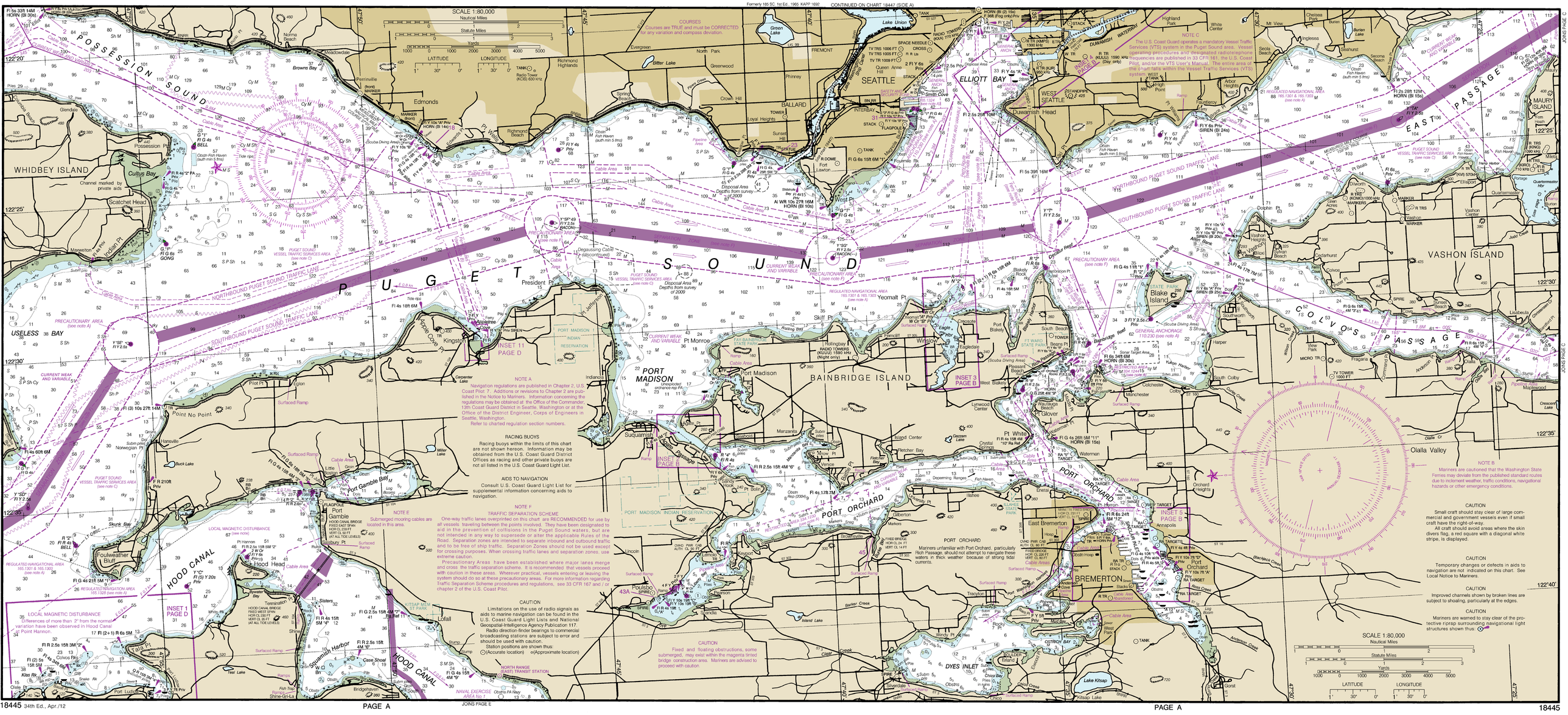

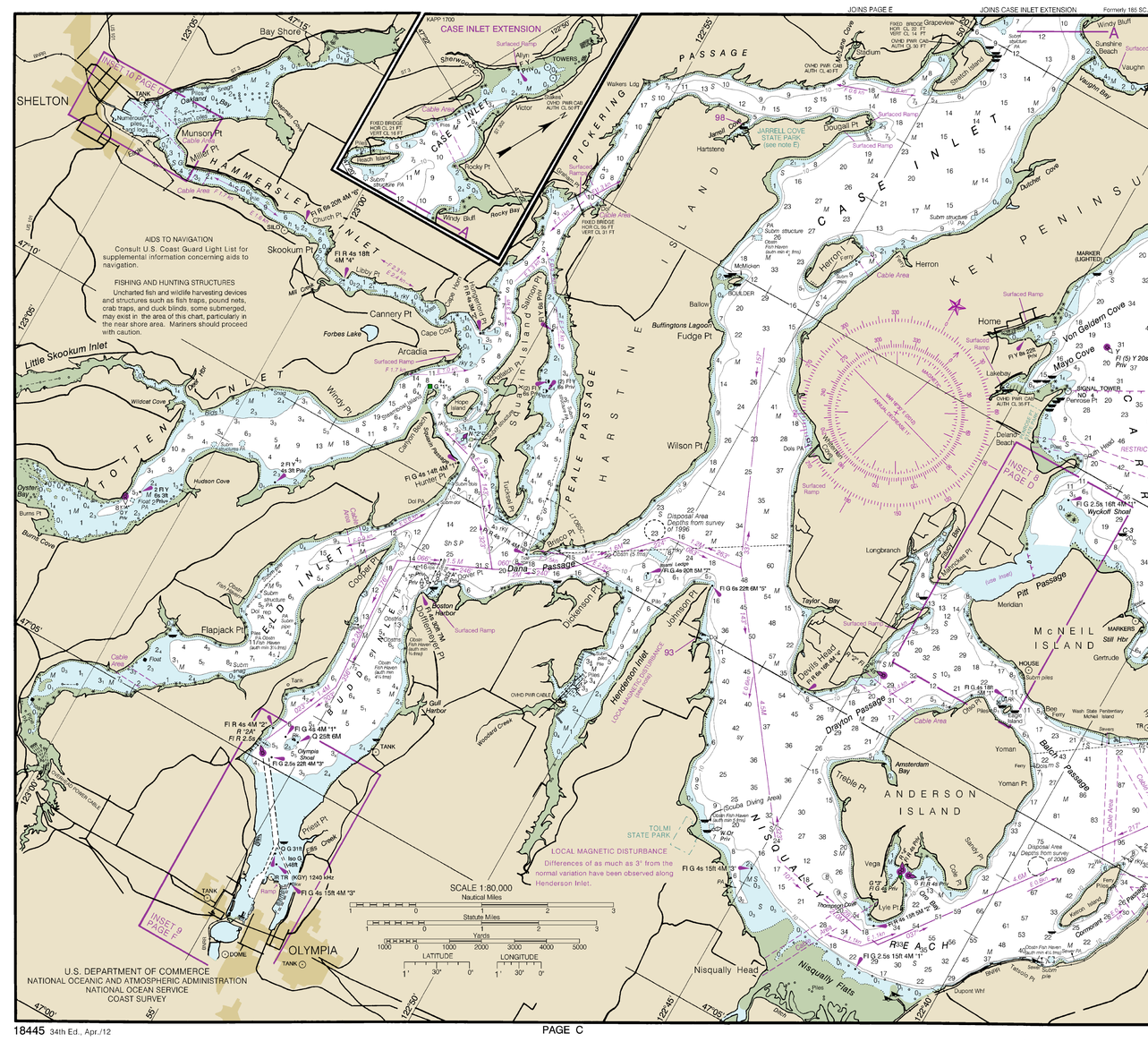

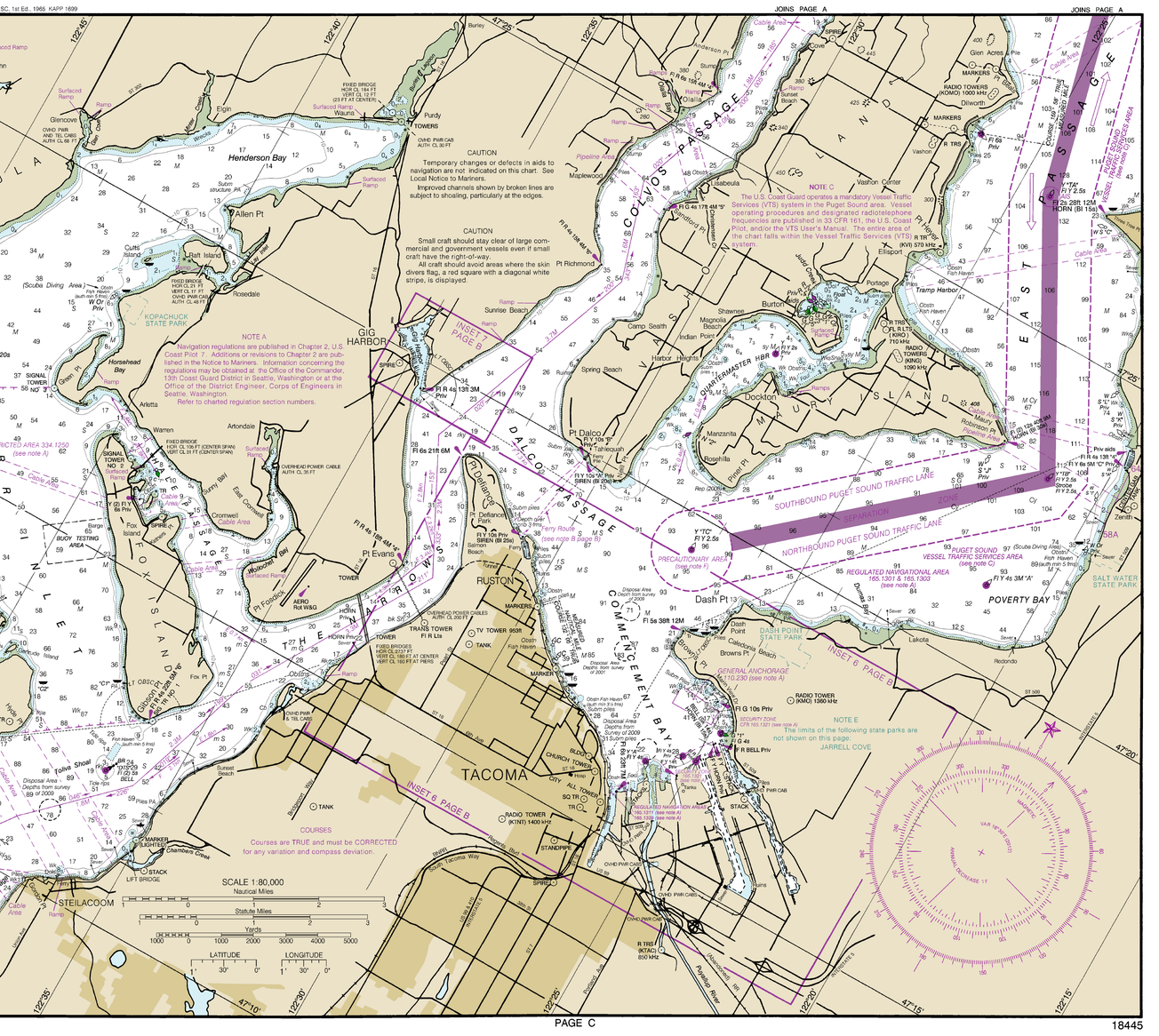

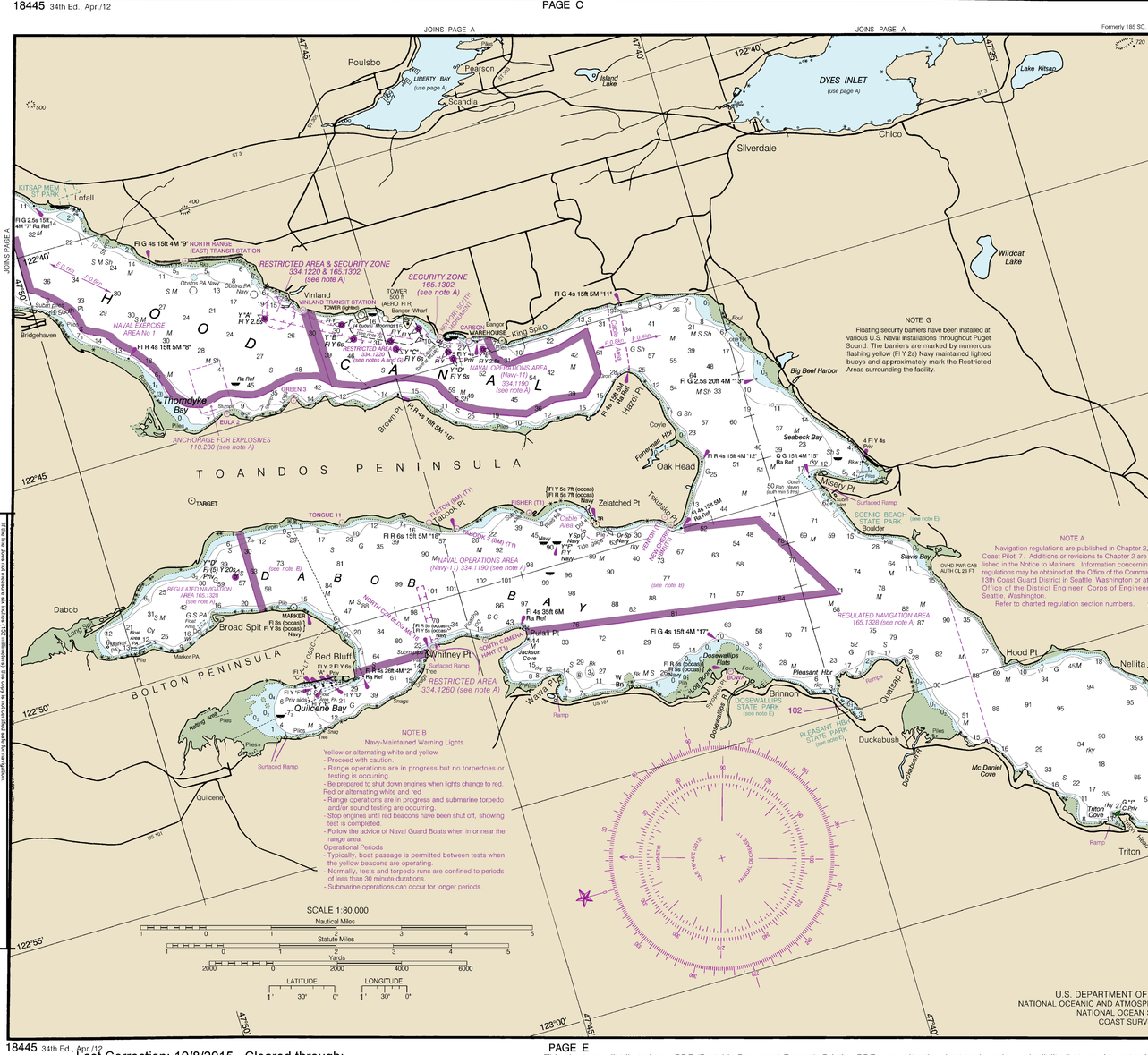

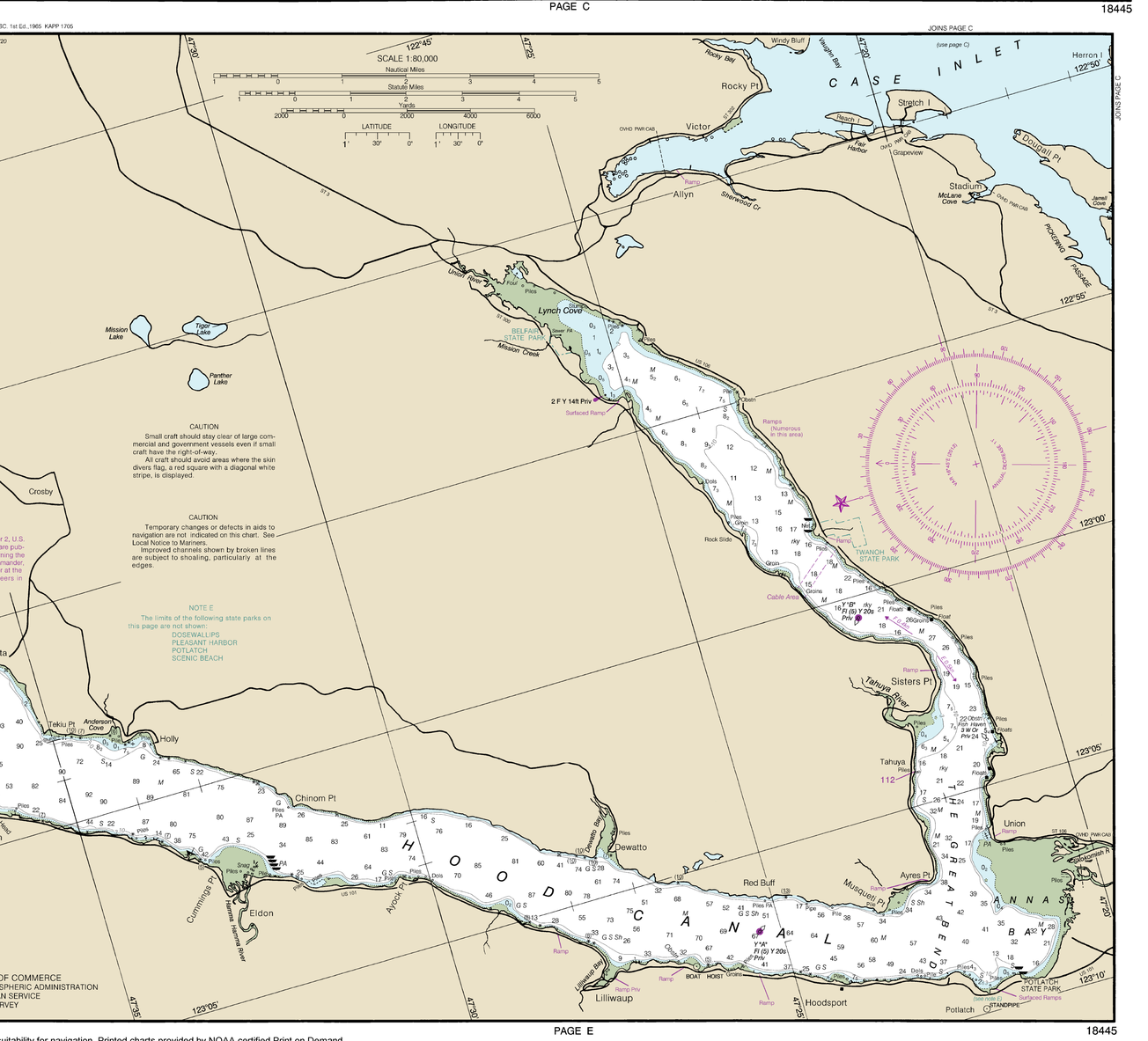

Last Correction: 10/8/2015. Cleared through:
LNM: 4015 (10/6/2015), NM: 4215 (10/17/2015), CHS: 0715 (7/31/2015)
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