



U.S. Department
of Homeland Security
**United States
Coast Guard**

LOCAL NOTICE TO MARINERS

District: 13

Week: 13/16

ISSUED BY: COMMANDER, THIRTEENTH COAST GUARD DISTRICT (dpw)
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<http://www.navcen.uscg.gov/?pageName=lnmDistrict®ion=13>

COMDTPUB P16502.6, Light List Volume VI, 2016 Edition and Coast Pilot Volume 7, 2016.
Coast Pilots, along with corrections, are available at: <http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm>.

UNITED STATES COAST GUARD NAVIGATION INFORMATION SERVICE (NIS)

The United States Coast Guard Navigation Information Service (NIS), operated by the USCG Navigation Center, is staffed 24 hours a day, 7 days a week. The NIS provides information on the current operational status, effective policies, and general information for GPS and DGPS. The NIS also disseminates Safety Broadcasts / Broadcast Notice to Mariners (BNM), Local Notice to Mariners (LNM), and the latest Notice Advisory to Navstar Users (NANU). NANU notices can also be obtained via e-mail subscription through the USCG Navigation Center website:

<http://www.navcen.uscg.gov/?pageName=GPS>.

In addition, the NIS investigates all reports of degradation or loss of GPS or DGPS service. Mariners are encouraged to report all degradation of radio navigation services to the NIS via any of the following: Phone: 703-313-5900, Email: webmaster@navcen.uscg.mil, or on the World Wide Web: <http://www.navcen.uscg.gov>.

BROADCAST NOTICE TO MARINERS

This section contains a range of all the significant Broadcast Notice to Mariners (BNM's) on the date of this edition.

| Originating Unit | Beginning BNM | Ending BNM |
|------------------|---------------|-------------|
| CGD THIRTEEN | D13-0260-16 | D13-0279-16 |

ABBREVIATIONS

A through H

ADRIFT - Buoy Adrift
AICW - Atlantic Intracoastal Waterway
AI - Alternating
B - Buoy
BKW - Breakwater
bl - Blast
BNM - Broadcast Notice to Mariner
bu - Blue
C - Canadian
CHAN - Channel
CGD - Coast Guard District
C/O - Cut Off
CONT - Contour
CRK - Creek
CONST - Construction
DAYMK/Daymk - Daymark
DBN/Dbn - Daybeacon
DBD/DAYBD - Dayboard
DEFAC - Defaced
DEST - Destroyed
DISCON - Discontinued
DMGD/DAMGD - Damaged
ec - eclipse
EST - Established Aid
ev - every
EVAL - Evaluation
EXT - Extinguished

I through O

I - Interrupted
ICW - Intracoastal Waterway
IMCH - Improper Characteristic
INL - Inlet
INOP - Not Operating
INT - Intensity
ISL - Islet
Iso - Isophase
kHz - Kilohertz
LAT - Latitude
LB - Lighted Buoy
LBB - Lighted Bell Buoy
LHB - Lighted Horn Buoy
LGB - Lighted Gong Buoy
LONG - Longitude
LNM - Local Notice to Mariners
LT - Light
LT CONT - Light Continuous
LTR - Letter
LWB - Lighted Whistle Buoy
LWP - Left Watching Properly
MHz - Megahertz
MISS/MSNG - Missing
Mo - Morse Code
MRASS - Marine Radio Activated Sound Signal
MSLD - Misleading
N/C - Not Charted

P through Z

PRIV - Private Aid
Q - Quick
R - Red
RACON - Radar Transponder Beacon
Ra ref - Radar reflector
RBN - Radio Beacon
REBUILT - Aid Rebuilt
RECOVERED - Aid Recovered
RED - Red Buoy
REFL - Reflective
RRL - Range Rear Light
RELIGHTED - Aid Relit
RELOC - Relocated
RESET ON STATION - Aid Reset on Station
RFL - Range Front Light
RIV - River
RRASS - Remote Radio Activated Sound Signal
s - seconds
SEC - Section
SHL - Shoaling
si - silent
SIG - Signal
SND - Sound
SPM - Single Point Mooring Buoy
SS - Sound Signal
STA - Station
STRUCT - Structure

F - Fixed
fl - flash
Fl - Flashing
G - Green
GIWW - Gulf Intracoastal Waterway
HAZ - Hazard to Navigation
HBR - Harbor
HOR - Horizontal Clearance
HT - Height

NGA - National Geospatial-Intelligence Agency
NO/NUM - Number
NOS - National Ocean Service
NW - Notice Writer
OBSCU - Obscured
OBST - Obstruction
OBSTR - Obstruction
Oc - Occulting
ODAS - Anchored Oceanographic Data Buoy

St M - Statute Mile
TEMP - Temporary Aid Change
TMK - Topmark
TRLB - Temporarily Replaced by Lighted Buoy
TRLT - Temporarily Replaced by Light
TRUB - Temporarily Replaced by Unlighted Buoy
USACE - Army Corps of Engineers
W - White
Y - Yellow

Additional Abbreviations Specific to this LNM Edition:

AIS - Automatic Identification System
LLNR - Light List Number
NM - Nautical Miles
CPA - Closest Point of Approach
RM - River Mile Marker

V-AIS - Virtual AIS
VTS - Vessel Traffic Service
WSDOT - Washington State Department of Transportation
NUWC - Naval Undersea Warfare Center
RAC - Racon

AtoN - Aids to Navigation
COTP - Captain of the Port
ODOT - Oregon Department of Transportation

SECTION I - SPECIAL NOTICES

This section contains information of special concern to the Mariner.

OREGON - CAPE BLANCO TO YAQUINA HEAD - Temporary TRIAXYS Research Buoy Deployment (Revised from LNM 02/16)

Oregon State University has recovered all equipment associated with the Temporary TRIAXIS Research Buoy Deployment project off Yaquina Bay, OR. For more information contact Mr. Dan Hellin at (541) 737-5452 (dan.hellin@oregonstate.edu), or OSU Public Safety at 541-737-3010, available 24 hours a day.

Chart 18580

LNM: 13/16

COLUMBIA RIVER – HARRINGTON POINT TO CRIMS ISLAND – Port Westward Dock work

Advanced American Construction will be working at the Port Westward dock on the Columbia River RM 53.5. Two derrick barges, DB 4000 and DB 4100, will remain on station through 15 May 16 working 0700 to 1730 Monday through Saturday. The derrick barges may have anchors deployed near the Port Westward facility. Anchor locations will be marked by yellow crown buoys. The derrick barges and crown buoys will be illuminated in accordance with the Navigation Rules at night. Mariners are requested to stay 250 feet away from the derrick barges and use extreme caution when transiting the area. Mariners are also requested to minimize their wake in the work zone. During operation hours, the derrick barges will be monitoring VHF-FM 13. For more information contact Mr. Scott Sells at 503-484-0575.

Chart 18523

LNM: 13/16

COLUMBIA RIVER – CRIMS ISLAND TO SAINT HELENS - COLUMBIA SLOUGH - Bridge Notice

The Port of Portland is conducting utility upgrades under the Inverness Force Main Bridge on the Columbia Slough at mile 4.8. Scaffolding will be installed and will reduce the vertical clearance from 30 feet to 22 feet. The scaffolding will be lighted with flashing yellow lights. The utility work will continue until 31 May 16. A safety boat will be on site, but will not block the waterway. For more information, contact Peter Hesford at 503-823-2669.

Chart 18524

LNM: 13/16

COLUMBIA RIVER – MCNARY DAM TO JUNIPER – Operating at lower end of operating range

McNary pool will operate in the lower end of the operating range beginning 02 Apr 16 through 1200 04 Apr 16. During this time it is possible the pool elevation may drop to 337.5'. For additional information, call the USACE Walla Walla District Operations Division at 509-527-7113 or 509-527-7115.

Chart 18541

LNM: 13/16

SNAKE RIVER – LAKE SACAJAWEA – LAKE HERBERT G WEST – Additional time to transit locks due to maintenance

Locking through the navigation lock at Lower Monumental Lock and Dam, located at Snake River mile 41.6, and at Little Goose Lock and Dam, located at Snake River mile 70.3 may require additional time through 29 Apr 16. Project personnel are conducting maintenance on the navigation lock tainter valves. One fill or empty valve will be available for lockage during these dates which will lengthen vessel lockage time by approximately 15 to 20 minutes. For additional information, call the USACE Walla Walla District Operations Division at 509-527-7113 or 509-527-7115.

Charts: 18545 18546

LNM: 13/16

OREGON – WILLAMETTE RIVER – PORTLAND TO WALNUT EDDY - Restriction of Willamette River Navigation Channel at Sellwood Bridge

The main navigation channel of the Willamette River at the Sellwood Bridge (river mile 16.5) will be restricted from 0500 18 Apr 16 through 1700

22 April 16 due to demolition work to remove concrete from the old Sellwood Bridge. Two barges will be stationed in the center of the channel during this period to catch any debris from the work above the channel. The barges will block about sixty feet of the channel's width. The barges will be lit at night in accordance with the Navigation Rules. On the weeks of 11 through 15 Apr 16 and 25 through 29 Apr 16, the barges will be stationed at either side of the main channel, allowing space for existing river traffic to pass. The channel will not be restricted on any weekend. Mariners should use caution when transiting the area. The channel will not be restricted on any weekend. Any questions should be directed to Jeff Staton at 541-501-8043.

Chart 18528

LNM: 13/16

WASHINGTON - STRAIT OF JUAN DE FUCA TO STRAIT OF GEORGIA TO PUGET SOUND - Bottom fish trawling resource survey

The Washington Department of Fish and Wildlife (WDFW) is conducting a resource survey of bottom fish in Puget Sound and adjacent waters 02 May 16 through 26 May 16. The survey will consist of a bottom trawl operated from the 57 foot F/V Chasina, call sign 'WYQ-6987'. These operations last approximately 30 minutes and fish for a distance of about 0.4 NM at each site, during daylight hours. Some of the survey sites may enter into the vessel traffic separation lanes and naval operating areas, however, due clearance and collision avoidance will be rendered to commercial vessels and naval warships. The F/V Chasina has been chartered by WDFW to conduct the bottom trawls and will be marked 'WDFW RESEARCH' on both sides of the vessel. F/V Chasina will monitor VHF FM Channels 13, 16, and the appropriate VTS frequency, as well as AIS. Mariners are requested to keep a safe distance when in the vicinity of the trawling. For additional information, contact WDFW Biologist Ms. Jennifer Blaine at (425) 379-2313 or email at Jennifer.Blaine@dfw.wa.gov and refer to enclosure (6) of this LNM.

Charts: 18400 18440

LNM: 13/16

WASHINGTON – PUGET SOUND - HOOD CANAL AND DABOB BAY – All test barge equipment removed (Revised from LNM 05/16)

Naval Surface Warfare Center Detachment Puget Sound has removed all the equipment associated with the test barge mooring project. For additional information please contact Mr. Steve Polillo at 360-315-0333, 360-908-0041 or email steven.p.polillo@navy.mil.

Charts: 18476 18477

LNM: 13/16

WASHINGTON – PUGET SOUND – SEATTLE TO OLYMPIA – ROBINSON POINT DGPS SITE – DGPS off-air time

The U.S. Coast Guard Navigation Center has approved off-air time for the Robinson Point, WA DGPS site to conduct equipment maintenance from 1000 to 1100 on 19 May 16 with an alternate time of 1000 to 1100 on 20 May 16. There will be no significant loss of coverage due to dual coverage in the area. For additional information or objections, contact the Navigation Center DGPS Operations at (703) 313-5902 or at <http://www.navcen.uscg.gov/?pageName=dgpsSiteInfo¤tOutages>.

Chart 18441

LNM: 13/16

WASHINGTON – LAKE WASHINGTON SHIP CANAL – Bridge Notice

The U.S. Coast Guard has issued a temporary deviation from the operating schedule that governs the University Bridge, mile 4.3, and the Montlake Bridge, mile 5.2, both crossing the Lake Washington Ship Canal, at Seattle, WA, from 0800 to 0930 on 15 May 16. This deviation allows the draw spans to remain in the closed to navigation position, and need not open to marine traffic for the Beat the Bridge foot race. Vessels which do not require bridge openings may continue to transit beneath the bridge during the closure period. The bridge will be able to open for emergencies, and there is no immediate alternate route for vessels to pass. In accordance with 33 CFR 117.35(e), the drawbridges must return to their regular operating schedule immediately at the end of the designated time period. For information, contact Mrs. Mary Brown at: Mary.Brown@seattle.gov.

Chart 18447

LNM: 13/16

WASHINGTON – LAKE WASHINGTON SHIP CANAL – Special bridge notice

The U.S. Coast Guard has issued a temporary deviation from the operating schedule that governs the Fremont Bridge, mile 2.6, and the University Bridge, mile 4.3, both crossing the Lake Washington Ship Canal in Seattle, WA. The deviation is necessary to accommodate the Brooks Trailhead 10K & 15K running event. This deviation allows the bridges to remain in the closed position from 0800 to 1000 on 22 May 16. Vessels which do not require bridge openings may continue to transit beneath these bridges during the closure periods. For information, contact Mrs. Mary Brown at: Mary.Brown@seattle.gov.

Chart 18447

LNM: 13/16

WASHINGTON – LAKE WASHINGTON SHIP CANAL – LAKE WASHINGTON – SR-520 Special Bridge Notice – Critical Navigation Notice – Part A (Revised from LNM 12/16)

The U.S. Coast Guard has established a temporary safety zone on Lake Washington around the east span of the SR-520 Bridge in Seattle, WA due to ongoing construction. The safety zone is necessary to ensure the safety of the maritime public and workers involved in the bridge construction when construction barges are located in the navigation channel under the east span of the bridge. The safety zone will prohibit any person or vessel from entering and remaining in the safety zone unless authorized by the Captain of the Port or his Designated Representative. The safety zone established in this rule encompasses all waters within 100 yards of the east span of the SR-520 Bridge. This rule is effective through 30 April 16.

From 0000 to 2400 on 14 March through, 30 April 16, with the exception of 04 Apr 16 through 06 Apr 16, the east navigation channel of the SR-520 Floating Bridge will be temporarily partially blocked by a flat deck spud barge. If additional clearance is required for safe passage of vessels with air draft of greater than 43 feet, mariners can contact tugboat Big Eagle on VHF-FM Ch. 16 and shifting the barge out of the east navigation channel can be arranged. Marine vessels shorter than 43 feet tall can continue to navigate through the west navigation channel. Boaters can contact tugboat Big Eagle on VHF-FM Ch. 16 for further information regarding the temporary blockage.

From 0000 on 04 Apr 16 through 2400 on 06 Apr 16 the West Navigation channel will be closed to all marine traffic. While the west navigation channel is blocked the east navigation channel will be open to mariners. Up to four construction barges may be operating in the navigation channel.

Chart 18447

LNM: 13/16

WASHINGTON – LAKE WASHINGTON SHIP CANAL – LAKE WASHINGTON – SR-520 Special Bridge Notice – Critical Navigation Notice – Part B (Revised from LNM 12/16)

1. The center drawspan has been permanently blocked. The new floating bridge does not have a draw span.
2. Navigation channel vertical clearance at the east span is restricted to 58 feet until approximately October 2016 when the full 70 foot vertical clearance will be established. The eastern navigation channel will be marked with red and green navigational buoys as shown in Enclosure (4) of LNM 10/15. The eastern navigation channel varies from 168 feet to 200 feet in width with the majority of it being over 180 feet wide. Exclusion area buoys and signage will mark the four Pontoon Alpha submerged anchor wires.
3. Eight temporary pilings (two groups of four pilings) marked with yellow lights flashing every 4 seconds (FI Y 4s) have been placed in the southeast part of Union Bay near the west end of the bridge for the temporary mooring of pontoons. Refer to LNM 05/13 chart 18447 for temporary chart corrections.
4. 12 temporary barge mooring pilings have been placed on the north side of the bridge just west of the west navigation channel and marked with quick flashing yellow lights (QY), which may be obscured at times when barges and other equipment are moored at the site.
5. The west navigation channel has been relocated to its final location directly west of the floating bridge pontoons as depicted in enclosure (1) of LNM 12/16. The vertical clearance for the new channel is 43 ft. Vessels with an air draft of greater than 43 feet but less than 58 feet may continue to use the east navigation channel.
6. Temporary Construction Buoys and Lighting; Eight temporary white mooring buoys (six on the north side and two on the south side) marked with white lights flashing every 4 seconds (FI W 4s) have been deployed near the bridge for the mooring of construction barges and shown as chart corrections in LNM 05/13 for chart 18447.
7. West Approach Project: Complete

For additional information, contact Mr. Ben Nelson at 925-864-4127 or email Ben.Nelson@Kiewit.com.

Chart 18447

LNM: 12/16

WASHINGTON – STRAIT OF JUAN DE FUCA TO STRAIT OF GEORGIA – SAN JUAN ISLAND – FRIDAY HARBOR – Sunken vessel

A sunken sailing vessel has been reported in Shipyard Cove in Friday Harbor, WA at approximate position 48-31.825N, 123-00.003W. The center of the sunken vessel is marked with a small white cylindrical buoy. The vessel's mast is approximately six feet from the surface below the surface at low water. Mariners are advised to transit the area with caution. For additional information, contact Mr. Marc Forlenza at 360-472-1644 or email getmarc62W@gmail.com.

Chart 18421

LNM: 13/16

OREGON – WASHINGTON- IDAHO - MONTANA – Proposed GPS testing (Revised from LNM 09/16)

US Strategic command has proposed GPS testing, encompassing an area of eastern Oregon, Washington and the majority of the states of Idaho and Montana. The GPS navigation signal may be unreliable due to testing on GPS frequencies used by shipboard navigation and handheld systems. Systems that rely on GPS, such as e-911, AIS and DSC, may be affected. The center point of the test is 40-18-39.9N 113-34-28.4W, with a radius of 345 NM. GPS testing would occur on GPS frequencies L1 and L2 on the following dates:

27 to 30 Apr 16, from 1400Z to 1730Z (0800 to 1130 MST) and 1830Z to 2200Z (1230 to 1600 MST)
01 to 20 May 16, from 1400Z to 1730Z (0800 to 1130 MST) and 1830Z to 2200Z (1230 to 1600 MST)

More information is available at the U.S. Coast Guard Navigation Center web site, www.navcen.uscg.gov. During this period GPS users are encouraged to report any GPS service outages that they may experience to the Navigation Information Service by calling (703) 313-5900 or by

using the Navigation Center's web site to submit a GPS problem report.

LNM: 12/16

OREGON - APPROACHES TO YAQUINA AND DEPOE BAY - YAQUINA BAY ENTRANCE – Shoaling reported in the Yaquina Bay Entrance Channel

The US Coast Guard has received a report of shoaling outside the entrance to Yaquina Bay, OR. The shoaling is reported as being 70 yards wide, 315 yards West-Southwest of the Yaquina Bay South Channel Jetty, between 44-36-31.08N 124-05-08.34W and 44-36-28.74N 124-05-06.18W. Depths 12 feet less than the charted depths have been observed. Mariners should exercise extreme caution when entering or departing Yaquina Bay, and transit on the northern side of the channel. An estimated location of the shoaling is attached as enclosure (4) of LNM 12/16.

Charts: 18561 18581

LNM: 12/16

OREGON – WILLAMETTE RIVER - PORT OF PORTLAND - Debris removal and sand placement (revised from LNM 07/16)

HME Construction, Inc. is conducting debris removal and sand placement at Willamette River RM 13.1. Debris removal operations will begin approximately 27 Feb 16. Sand placement will begin approximately 29 Feb 16 and will continue until 08 Apr 16. These operations will be performed 10 hours per day, 7 days per week. Debris removal and sand placement operations will be conducted with the derrick Sea Horse. Diving operations will also be conducted from the Sea Horse in support of the operation. All required visual dive signals and navigation lights will be displayed as appropriate. The Sea Horse will operate on VHF-FM Ch. 69 and will monitor channels 13 and 16. For additional information contact Mr. Alan Park at (360) 518-1570 or Mr. Darrell Jamieson at (360) 772-4072.

Chart 18526

LNM: 12/16

WASHINGTON - PUGET SOUND - SEATTLE TO BREMERTON - SINCLAIR INLET- Puget Sound Naval Shipyard Harbor Security Exercise

Puget Sound Naval Shipyard Harbor Security will be conducting several exercises in the vicinity of the Puget Sound Naval Shipyard waterfront, from 0700 to 1700 from 05 Apr 16 through 08 Apr 16 and 11 Apr 16 through 15 Apr 16. Using blank ammunition, there will be multiple shots fired from the opposing forces and Navy Security Boats. On 12 Apr 16, from 2000 to 2200 there will additional exercises with blank ammunition fire during low light and the hours of darkness. The surrounding community of the Sinclair Inlet should expect to hear multiple gun shots from the exercise during the specified time frames. There will be an additional safety boat on scene monitoring radar for vessel traffic in the area. Navy security boats HS-26, HS-10, HS-23, and HS-29 will be on site and will be monitoring VHF-FM channels 12, 16 and 65A. The boundaries of the operations area are:

NW Point - 47-33-06N 122-39-25W SW Point - 47-32-29N 122-39-32W NE Point - 47-33-31N 122-37-44W SE Point - 47-32-54N 122-37-44W

Mariners are requested to use caution, reduce speed and keep a safe distance from the exercise. For additional information, contact ENS Michael Hodosky at (360) 340-4023 (Cell), or MAC Michael Reyes (SW/AW/EXW) at (210) 952-0410 (Cell).

Chart 18452

LNM: 12/16

OREGON – PORT OF PORTLAND – WILLAMETTE RIVER – Public notice for the Broadway Bridge

The U. S. Coast Guard has issued a deviation to the operating schedule that governs the Broadway Bridge (LLNR 14955.2) across the Willamette River at RM 11.7. This deviation allows the draw span of the Broadway Bridge across the Willamette River to remain in the closed position and need not open for maritime traffic from 0500 until 1030 on 17 Apr 16. The Broadway Bridge provides 90 feet of vertical clearance above Columbia River Datum 0.0 while in the closed position. Vessels which do not require a bridge opening may continue to transit beneath the bridge during this closure period. The bridge will be required to open, if needed, for vessels engaged in emergency response operations during this closure period. The bridge shall operate in accordance to 33 CFR § 117.897 at all other times. For more information, contact Ms. Barbara Blanchard at Barbara.c.blanchard@multco.us.

Chart 18526

LNM: 10/16

WASHINGTON – ABERDEEN AND WESTHAVEN – Embedded log

A dead head log that has become embedded at an angle in the harbor bottom has been located in the vicinity of the Elliot Slough turning basin at approximate position 46-58-31.447N, 123-46-54.255W. The object is submerged at high water. All mariners use caution when transiting the area. For additional information contact Mr. Craig Morton at (206) 764-3429 or email Craig.D.Morton@usace.army.mil.

Chart 18502

LNM: 10/16

SECTION II - DISCREPANCIES

This section lists all reported and corrected discrepancies related to Aids to Navigation in this edition. A discrepancy is a change in the status of an aid to navigation that differs from what is published or charted.

DISCREPANCIES (FEDERAL AIDS)

| LLNR | Aid Name | Status | Chart No. | BNM Ref. | LNM St | LNM End |
|-------------|--|---------------------------|--------------|----------------|--------------|---------|
| 765.2 | DART Tsunami Warning Lighted Buoy 46407 | ADRIFT | 18007 | 0191-16 | 09/16 | |
| 8860 | Empire Range A Rear Light | DAYMK DMGD | 18587 | 0263-16 | 13/16 | |
| 9501 | Siuslaw River Channel Buoy 11 | OFF STA | 18583 | 0244-16 | 12/16 | |
| 9605 | Yaquina Bay South Jetty Light 4 | STRUCT DEST | 18581 | 1075-15 | 50/15 | |
| 10585 | Eureka Dike Light 77 | STRUCT DMGD | 18523 | 0250-14 | 15/14 | |
| 11150 | Willow Dike Light 23 | STRUCT DEST | 18525 | 0174-14 | 10/14 | |
| 11770 | Bonneville Pool Light 4 | STRUCT DEST | 18531 | 0905-10 | 37/10 | |
| 13735 | Little Goose Reservoir Light 9 | STRUCT DEST | 18547 | 0056-16 | 03/16 | |
| 13750 | Little Goose Reservoir Light 12 | REDUCED INT | 18547 | 0139-16 | 07/16 | |
| 14610 | Sand Island Lower Dike Light 1 | STRUCT DMGD | 18521 | 1092-15 | 51/15 | |
| 14985 | Stevens Point Buoy 4 | OFF STA | 18528 | 1071-15 | 50/15 | |
| 15010 | Elk Rock Buoy 12 | OFF STA | 18528 | 0061-16 | 04/16 | |
| 15585 | Point Chehalis Range Front Light | DAYMK MISSING/STRUCT DMGD | 18502 | 1012-09 | 50/09 | |
| 15585 | Point Chehalis Range Front Light | LT EXT | 18502 | 0067-13 | 03/13 | |
| 15610 | Grays Harbor South Reach Range A Front Light | LT EXT | 18502 | 0746-15 | 35/15 | |
| 16223 | Race Rocks East Cautionary Lighted Buoy VG | OFF STA | 18465 | 0116-16 | 06/16 | |
| 17090 | Browns Point Light | REDUCED INT | 18453 | 0870-15 | 41/15 | |
| 18820 | Swinomish Channel South Entrance Range Front Light | DAYMK MISSING | 18427 | 0144-16 | 07/16 | |
| 19725 | Mosquito Pass Daybeacon 2 | MISSING/STRUCT DEST | 18433 | 0045-16 | 03/16 | |

DISCREPANCIES (FEDERAL AIDS) CORRECTED

| LLNR | Aid Name | Status | Chart No. | BNM Ref. | LNM St | LNM End |
|-------|---------------------------------------|------------------|-----------|----------|--------|---------|
| 16175 | Port San Juan Lighted Whistle Buoy YK | RESET ON STATION | 18460 | None | 13/16 | 13/16 |

DISCREPANCIES (PRIVATE AIDS)

| LLNR | Aid Name | Status | Chart No. | BNM Ref. | LNM St | LNM End |
|--------------|--|----------------|--------------|----------------|--------------|---------|
| 652 | OSU Yaquina Research Lighted Buoy | ADRIFT | 18561 | 0196-16 | 10/16 | |
| 718 | Scripps Institute Wave Recorder Lighted Buoy 46211/036 | MISSING | 18502 | 0085-16 | 04/16 | |
| 727 | OSU Grays Canyon Research Lighted Buoy | MISSING | 18500 | 1039-15 | 50/15 | |
| 15533 | Scripps Institute Wave Recorder Lighted Buoy 46211/036 | MISSING | 18502 | 0085-16 | 04/16 | |
| 19272 | Bellingham Harbor Shoal Buoy A | OFF STA | 18424 | 0278-16 | 13/16 | |

DISCREPANCIES (PRIVATE AIDS) CORRECTED

| LLNR | Aid Name | Status | Chart No. | BNM Ref. | LNM St | LNM End |
|-------|-----------------------------|------------------|-----------|----------|--------|---------|
| 620 | Umpqua River Light | RELIGHTED | 18584 | None | 13/16 | 13/16 |
| 9260 | Umpqua River Light | RELIGHTED | 18584 | None | 13/16 | 13/16 |
| 17158 | Tacoma Outfall Lighted Buoy | RESET ON STATION | 18453 | None | 13/16 | 13/16 |

PLATFORM DISCREPANCIES

| Name | Status | Position | BNM Ref. | LNM St | LNM End |
|------|--------|----------|----------|--------|---------|
| None | | | | | |

PLATFORM DISCREPANCIES CORRECTED

| Name | Status | Position | BNM Ref. | LNM St | LNM End |
|------|--------|----------|----------|--------|---------|
| None | | | | | |

SECTION III - TEMPORARY CHANGES and TEMPORARY CHANGES CORRECTED

This section contains temporary changes and corrections to Aids to Navigation for this edition. When charted aids are temporarily relocated for dredging, testing, evaluation, or marking an obstruction, a temporary correction shall be listed in Section IV giving the new position.

TEMPORARY CHANGES

| LLNR | Aid Name | Status | Chart No. | BNM Ref. | LNM St | LNM End |
|-------|---|------------------------|-----------|----------|--------|---------|
| 10585 | Eureka Dike Light 77 | RELOCATED | 18523 | 0250-14 | 15/14 | |
| 11150 | Willow Dike Light 23 | TRLB | 18525 | 0177-14 | 10/14 | |
| 11770 | Bonneville Pool Light 4 | TRLB | 18531 | 0909-10 | 38/10 | |
| 15595 | Grays Harbor Channel Lighted Whistle Buoy 11 | RELOCATED FOR DREDGING | 18502 | 0218-16 | 11/16 | |
| 15655 | Grays Harbor South Reach Lighted Gong Buoy 21 | RELOCATED FOR DREDGING | 18502 | 0219-16 | 11/16 | |
| 19725 | Mosquito Pass Daybeacon 2 | TRUB | 18433 | 0045-16 | 04/16 | |

TEMPORARY CHANGES CORRECTED

| LLNR | Aid Name | Status | Chart No. | BNM Ref. | LNM St | LNM End |
|------|----------|--------|-----------|----------|--------|---------|
|------|----------|--------|-----------|----------|--------|---------|

None

PLATFORM TEMPORARY CHANGES

| Name | Status | Position | BNM Ref. | LNM St | LNM End |
|------|--------|----------|----------|--------|---------|
|------|--------|----------|----------|--------|---------|

None

PLATFORM TEMPORARY CHANGES CORRECTED

| Name | Status | Position | BNM Ref. | LNM St | LNM End |
|------|--------|----------|----------|--------|---------|
|------|--------|----------|----------|--------|---------|

None

SECTION IV - CHART CORRECTIONS

This section contains corrections to federally and privately maintained Aids to Navigation, as well as NOS corrections.

This section contains corrective actions affecting chart(s). Corrections appear numerically by chart number, and pertain to that chart only. It is up to the mariner to decide which chart(s) are to be corrected. The following example explains individual elements of a typical chart correction.

| Chart Number | Chart Edition | Edition Date | Last Local Notice to Mariners | Horizontal Datum Reference | Source of Correction | Current Local Notice to Mariners |
|--|-------------------|------------------------------|-------------------------------|----------------------------|----------------------|----------------------------------|
| 12327 | 91st Ed. | 19-APR-97 | Last LNM: 26/97 | NAD 83 | | 27/97 |
| Chart Title: NY-NJ-NEW YORK HARBOR - RARITAN RIVER | | | | | | |
| Main Panel 2245 NEW YORK HARBOR | | | | | CGD01 | |
| (Temp) | ADD | NATIONAL DOCK CHANNEL BUOY 3 | | | at 40-41-09.001N | 074-02-48.001W |
| | | Green can | | | | |
| | Corrective Action | Object of Corrective Action | | | Position | |

(Temp) indicates that the chart correction action is temporary in nature. Courses and bearings are given in degrees clockwise from 000 true. Bearings of light sectors are toward the light from seaward. The nominal range of lights is expressed in nautical miles (NM) unless otherwise noted.

| | | | | | | |
|--|-----------------|-------------------------------|------------------------|---------------|---|----------------------------------|
| 18400 | 49th Ed. | 01-APR-12 | Last LNM: 12/16 | NAD 83 | | 13/16 |
| Chart Title: Strait of Georgia and Strait of Juan de Fuca | | | | | | |
| Main Panel 1656 STRAIT OF GEORGIA AND STRAIT OF JUAN DE FUCA. Page/Side: N/A | | | | | | |
| | RELOCATE | Undertaker's Reef Daybeacon 5 | | | CGD13 from 48-31-22.702N to 48-31-22.578N | 122-49-46.413W 122-49-46.254W |

| | | | | | |
|--|---|------------------|------------------------|---|----------------------------------|
| 18421 | 51st Ed. | 01-MAY-13 | Last LNM: 12/16 | NAD 83 | 13/16 |
| <i>ChartTitle: Strait of Juan de Fuca to Strait of Georgia;Drayton Harbor</i> | | | | | |
| CHART WA - STRAIT OF JUAN DE FUCA TO STRAIT OF GEORGIA. Page/Side: N/A | | | | | |
| RELOCATE | Undertaker's Reef Daybeacon 5 | | | CGD13 from 48-31-22.702N to 48-31-22.578N | 122-49-46.413W 122-49-46.254W |
| 18429 | 11th Ed. | 01-MAY-14 | Last LNM: 12/16 | NAD 83 | 13/16 |
| <i>ChartTitle: Rosario Strait-southern part</i> | | | | | |
| Main Panel 1682 ROSARIO STRAIT SOUTH PART. Page/Side: N/A | | | | | |
| RELOCATE | Center Island Reef Daybeacon and Change the symbol to an open daybeacon and remove Ra Ref. | | | CGD13 from 48-29-04.986N to 48-29-04.626N | 122-50-05.988W 122-50-05.916W |
| RELOCATE | Undertaker's Reef Daybeacon 5 | | | CGD13 from 48-31-22.702N to 48-31-22.578N | 122-49-46.413W 122-49-46.254W |
| 18430 | 9th Ed. | 01-JUL-10 | Last LNM: 12/16 | NAD 83 | 13/16 |
| <i>ChartTitle: Rosario Strait-northern part</i> | | | | | |
| Main Panel 1683 ROSARIO STRAIT NORTH PART. Page/Side: N/A | | | | | |
| RELOCATE | Undertaker's Reef Daybeacon 5 | | | CGD13 from 48-31-22.702N to 48-31-22.578N | 122-49-46.413W 122-49-46.254W |
| 18440 | 30th Ed. | 01-OCT-10 | Last LNM: 11/16 | NAD 83 | 13/16 |
| <i>ChartTitle: Puget Sound</i> | | | | | |
| Main Panel 1688 PUGET SOUND. Page/Side: N/A | | | | | |
| RELOCATE | Skunk Bay Light FR Priv | | | CGD13 from 47-55-12.000N to 47-55-09.300N | 122-34-06.000W 122-34-11.316W |
| 18445 | 34th Ed. | 01-APR-12 | Last LNM: 09/16 | NAD 83 | 13/16 |
| <i>ChartTitle: Puget Sound-Possession Sound to Olympia including Hood Canal</i> | | | | | |
| CHART WA - PUGET SOUND - POSSESSION SOUND TO OLYMPIA INCLUDING HOOD CANAL. Page/Side: N/A | | | | | |
| RELOCATE | Skunk Bay Light FR Priv | | | CGD13 from 47-55-12.000N to 47-55-09.300N | 122-34-06.000W 122-34-11.316W |
| 18473 | 8th Ed. | 01-SEP-05 | Last LNM: 12/16 | NAD 83 | 13/16 |
| <i>ChartTitle: Puget Sound-Oak Bay to Shilshole Bay</i> | | | | | |
| Main Panel 1937 OAK BAY TO SHILSHOLE BAY PUGET SOUND. Page/Side: N/A | | | | | |
| RELOCATE | Skunk Bay Light FR Priv | | | CGD13 from 47-55-12.000N to 47-55-09.300N | 122-34-06.000W 122-34-11.316W |
| 18477 | 5th Ed. | 25-AUG-01 | Last LNM: 11/16 | NAD 83 | 13/16 |
| <i>ChartTitle: Puget Sound-Entrance to Hood Canal</i> | | | | | |
| Main Panel 1938 PUGET SOUND - ENTRANCE TO HOOD CANAL. Page/Side: N/A | | | | | |
| RELOCATE | Skunk Bay Light FR Priv | | | CGD13 from 47-55-12.000N to 47-55-09.300N | 122-34-06.000W 122-34-11.316W |

SECTION V - ADVANCE NOTICES

This section contains advance notice of approved projects, changes to aids to navigation, or upcoming temporary changes such as dredging, etc.
Mariners are advised to use caution while transiting these areas.

SUMMARY OF ADVANCED APPROVED PROJECTS

| | | |
|----------------------------|---------------------|-----------------|
| <u>Approved Project(s)</u> | <u>Project Date</u> | <u>Ref. LNM</u> |
| None | | |

Advance Notice(s)

WASHINGTON - GRAYS HARBOR - Aberdeen Reach Range L disestablishment

The U.S. Coast Guard will be disestablishing Aberdeen Reach Range "L" Front Light (LLNR 15890) and Aberdeen Reach Range "L" Rear Light (LLNR 15895) during the spring of 2016. The structure for Aberdeen Reach Range "L" Rear has deteriorated, and is in danger of collapse. Aberdeen Rear Range "L" Front Light will be changed to Aberdeen Harbor Light 1A (LLNR 15889) displaying a green light flashing every 2.5 seconds (FI G 2.5s) with a nominal range of 4 NM.

Chart 18502

LNM: 12/16

WASHINGTON – STRAIT OF JUAN DE FUCA TO STRAIT OF GEORGIA – SWINOMISH CHANNEL– Swinomish Channel South Entrance Range Front Light reduction in dayboard size

The U.S. Coast Guard will be reducing the dayboard size of Swinomish Channel South Entrance Range Front Light (LLNR 18820) from a 8KRW (8' wide by 16' tall red dayboard with a white vertical stripe) to a 6KRW (6' wide by 12' tall red dayboard with a white vertical stripe). Tidal and wave action has destroyed the current 8KRW dayboard, and the 6KRW will be installed as a temporary measure until its effectiveness can be determined. The U.S. Coast Guard is soliciting comments on this change, which may be submitted to email address d13-PF-LNM@uscg.mil or (206) 220-7276.

Chart 18427

LNM: 10/16

WASHINGTON – STRAIT OF JUAN DE FUCA – EASTERN PORTION – Relocation of Smith Island Light and the disestablishment of Minor Island Light (Revised from LNM 03/16)

The U.S. Coast Guard has rebuilt Smith Island Light (LLNR 16375) between Smith Island and Minor Island in the eastern Strait of Juan de Fuca in approximate position 48-19-14.368N 122-49-51.449W. The U.S. Coast Guard will be discontinuing Minor Island Light (LLNR16380) due to the loss of land mass from erosion at that location. A revised notice will be published when the date of removal has been scheduled.

Chart 18465

LNM: 09/16

SECTION VI - PROPOSED CHANGES

Periodically, the Coast Guard evaluates its system of aids to navigation to determine whether the conditions for which the aids to navigation were established have changed. When changes occur, the feasibility of improving, relocating, replacing, or discontinuing aids are considered. This section contains notice(s) of non-approved, proposed projects open for comment. SPECIAL NOTE: Mariners are requested to respond in writing to the District office unless otherwise noted (see banner page for address).

PROPOSED WATERWAY PROJECTS OPEN FOR PUBLIC COMMENT

| <u>Proposed Project(s)</u> | <u>Closing</u> | <u>Docket No.</u> | <u>Ref. LNM</u> |
|----------------------------|----------------|-------------------|-----------------|
| None | | | |

| <u>Proposed Change Notice(s)</u> |
|----------------------------------|
| None |

SECTION VII - GENERAL

This section contains information of general concern to the Mariners. Mariners are advised to use caution while transiting these areas.

SUMMARY OF BRIDGE LIGHTING DISCREPANCIES AND CORRECTIONS

The summary of Bridge Lighting Discrepancies and Corrections is listed in Enclosure (1) of this Local Notice to Mariners.

LNM: 13/16

SUMMARY OF DREDGING OPERATIONS

The summary of Dredging Operations is listed in Enclosure (2) of this Local Notice to Mariners.

LNM: 13/16

SUMMARY OF MARINE EVENTS

The summary of Marine Events is listed in Enclosure (3) of this Local Notice to Mariners.

LNM: 13/16

OREGON – COOS BAY – McCullough (US101) Bridge repair

ODOT is conducting a repair project on the McCullough Bridge (LLNR 9009) at mile 9.5 over Coos Bay on Hwy. US 101. The project will be completed sometime in 2017. The repairs are on the north side of Jarvis Upper Range 'B' Front Light (LLNR 8960) outside the main navigation channel. Two 2000 foot temporary work bridges have been constructed for the project, but will not encroach into the navigation channel. The temporary bridges will be built on steel piles placed 45 feet apart. Enclosure (5) of LNM 44/13 shows the diagram and aerial view of the project.

Chart 18587

LNM: 44/13

OREGON - SIUSLAW RIVER - Bridge Notice

Repairs are being conducted on the US 101 bridge (LLNR 9558) across the Siuslaw River, mile 5.0, through 31 Mar 18. Repairs include a containment system with scaffolding that reduces the bridge's vertical clearance up to 10 feet. Signs have been installed to warn mariners of the reduced clearance. Scaffolding will be installed as work progresses from north to south. The US 101 Bridge draw will not have containment installed so maritime navigation will not be impacted. Service barge(s) will be moored at the adjacent span supporting the maintenance work.

OREGON - SIUSLAW RIVER - Bridge Notice

Barge and work crews may be contacted using VHF-FM Channel 16. Mariners are requested to transit the construction area at minimum safe speed with no wake. For more information, contact Mr. Wade Campbell at (541) 260-3345.

Chart 18583

LNM: 09/16

COLUMBIA RIVER – ASTORIA – Old Youngs Bay Bridge Construction

Bridge improvements on the Old Youngs Bay Bridge (LLNR 14582) in Astoria will be from 0700 on 15 Feb 16 through 2300 on 15 Jun 16. During construction, the double bascule span will operate in a single leaf mode only, and vessels need to contact the bridge operator at least three hours prior to an opening. Containment will be installed beneath the bridge that will reduce the vertical clearance from 19 feet to 14 feet at high tide. Vessels able to pass through the bridge in the closed positions may do so at anytime. The Old Youngs Bay Bridge can open for emergencies, however, the work crew will need at least a three hour notice from the bridge operator. In accordance with 33 CFR 117.35(e), the drawbridge must return to its regular operating schedule immediately at the end of the effective period of this temporary deviation.

Chart 18521

LNM: 05/16

COLUMBIA RIVER - BONNEVILLE TO THE DALLES - Hood River Highway Bridge notice (Revised from LNM 48/15)

The Hood River Bridge (LLNR 11933), at Columbia River mile 169.8, continues to be unable to open for marine traffic due to emergent mechanical repairs. The bridge provides 68 feet of vertical clearance in the closed position. The bridge draw is scheduled to be tested for an opening in April 2016. The LNM will be updated as more information is made available. For additional information, contact Mr. Michael S. McElwee at (541) 386-1138.

Chart 18532

LNM: 09/15

SNAKE RIVER - LAKE SACAJAWEA - BURBANK - Bridge inspection notice

Washington State Department of Transportation will be inspecting the SR-12 bridges, east (LLNR 13113) and west (LLNR 13113.5), that span the Snake River, RM 2.2, at Burbank, WA. The inspection will take place between 0800 and 1600, 04 through 08 Apr 16. The bridges will be inspected using an under-bridge inspection truck (UBIT) that occupies a portion of the roadway. The UBIT will give way to all mariners and any vessel may transit under the bridge at any time. The vertical clearance of the bridges will be reduced from 61 feet to 50 feet while the UBIT is deployed. Marine vessels may contact UBIT crew via VHF-Fm Ch. 16. For additional information, call Mr. Richard Dahl at (360) 570-2549 or email SharpD@wsdot.wa.gov.

Chart 18545

LNM: 09/16

OREGON - WILLAMETTE RIVER - PORTLAND TO WALNUT EDDY - Sellwood Bridge construction (Revised from LNM 39/15)

The Sellwood Bridge (LLNR 14995) at RM 16.6 on the Willamette River is under construction until November 2016. A no wake zone is in effect within 500 feet of the bridge. The marked navigable channel at the bridge has been relocated as shown in Enclosure (4) of LNM 01/16. Two debris booms have been added to the construction site on the upstream side of the project, as shown in enclosure (5) of LNM 28/14. Each boom is held in place by multiple pilings, which are marked with flashing yellow lights and yellow reflective tape. Mariners are cautioned to observe the temporary navigation buoys and bridge navigation lighting and comply with the exclusion area established by both the buoys and signage. For additional information, contact Mr. Chad Yount at (520) 468-9550 or email cayount@sundt.com.

Chart 18528

LNM: 50/15

OREGON - WILLAMETTE SLOUGH - MINTO ISLAND PEDESTRIAN & BICYCLE BRIDGE - Special bridge notice

Legacy Contracting, Inc. is constructing the Minto Island Pedestrian/Bicycle Bridge in Salem, OR, in the vicinity of Riverfront Park Playground at 44-56-19.000N, 123-02-43.000W. The construction work will be Monday through Sunday 24 hours per day until 15 Oct 16. Mariners can expect overhead cranes and pile driving while constructing temporary trestles with overhead hazards of a vertical clearance of 10 feet. A temporary 40 foot wide channel will be marked with signs for passage under the bridge and through the construction zone. Regulatory orange and white buoys will also be placed marking the construction area requesting no wake and bridge construction. For additional information, contact Mr. Monte Nunnely at (503) 510-7624 or Mr. Todd Ross at (503) 749-1818, or email: ToddR@LegacyContractingInc.com.

LNM: 22/15

WASHINGTON – LAKE WASHINGTON SHIP CANAL – Montlake Bridge Special Bridge Notice

The U.S. Coast Guard has issued a temporary deviation from the normal operating schedule that governs the Montlake Bridge (LLNR 18240) over the Lake Washington Ship Canal, mile 5.2, in Seattle, WA. The deviation period is from 0700 to 1800 on 02 Apr 16, and from 0630 to 1230 on 03 Apr 16. The deviation is necessary to accommodate the grand opening of the new Evergreen Point Floating Bridge bike ride by the Cascade Bicycle Club. The Montlake Bridge in the closed position provides 30 feet of vertical clearance throughout the navigation channel, and 46 feet of vertical clearance throughout the center 60 feet of the bridge; vertical clearance references to the Mean Water Level of Lake Washington. Vessels that do not require a bridge opening may continue to transit beneath this bridge during the closure. The U.S. Coast Guard will inform the users of the waterway through our Local Broadcast Notices to Mariners of any change in this operating schedule. The bridge shall operate in accordance to 33 CFR § 117.897 at all other times. For additional information contact Ms. Barbara J. Rasaie at (425) 739-3700 or email rasaieB@wsdot.wa.gov.

Chart 18447

LNM: 08/16

WASHINGTON – EVERETT – SNOHOMISH RIVER – SR 529 Bridge Special Notice

The U. S. Coast Guard has approved a temporary bridge deviation from the operating schedule that governs the SR-529 bridge from 0730 until 1100 on 10 Apr 16. This deviation allows the swing span of the SR 529 Bridge (north and south bound) across the Snohomish River, mile 3.6, near Everett, WA, and the SR 529 Bridge (north and south bound) across Steamboat Slough, mile 1.1, near Marysville, WA, to remain in the closed position. This request supports the Everett Half Marathon event. Vessels able to pass through the bridge in the closed position may do so at anytime. In accordance with 33 CFR 117.35(e), the drawbridges must return to its regular operating schedule immediately at the end of the effective period of this temporary deviation. For more info, contact Barbara J. Rasaie at rasaieb@wsdot.wa.gov.

WASHINGTON – EVERETT – SNOHOMISH RIVER – SR 529 Bridge Special Notice

Chart 18443

LNM: 07/16

COLUMBIA AND SNAKE RIVERS – Winter seasonal recreational vessel lockage

Winter recreational vessel lockage will be made during daylight hours only, on request at each of the USACE Walla Walla District locks through 14 May 16. Vessels can contact the lock operator via VHF-FM Ch. 14 or commercial telephone.

McNary Lock and Dam at Columbia River Mile 292, 541-922-2231
Ice Harbor Lock and Dam at Snake River Mile 9.7, 509-543-3253 x231
Lower Monumental Lock and Dam at Snake River Mile 41.6, 509-282-7231
Little Goose Lock and Dam at Snake River Mile 70.3, 509-399-2233 x231
Lower Granite Lock and Dam at Snake River Mile 107.5, 509-843-1493 x231

Commercial vessels continue to have lockage precedence over recreational vessels. At the discretion of the lock operator, recreational vessels may be allowed to lock through with commercial vessels. All vessel owner/operators lock through at their own risk. All persons in the vessel must be wearing a personal flotation device (PFD) during lockage. Follow the directions of the lock operator when using locks or operating in the vicinity of the locks. The lock operator has final authority on the suitability of a craft for lockage. Please refer to U.S. Army Corps of Engineers Safe Lockage Policy for Recreational Craft on the Columbia and Snake Rivers, published separately, for safety requirements. Public notices and other navigation lock information are available on the Internet at: <http://www.nww.usace.army.mil/Missions/Navigation.aspx>. For additional information on this matter or copies of our Safe Lockage policy, call USACE Walla Walla Operations Division at (509) 527-7113 or (509) 527-7115.

Charts: 18541 18545 18546 18547

LNM: 36/15

OREGON - CAPE BLANCO TO YAQUINA HEAD AND OFFSHORE – Cable Laying Operations off the Oregon Coast (Revised from 40/14)

The University of Washington, as part of the Ocean Observatories Initiative (OOI), has installed underwater equipment and high voltage cable in the Pacific Ocean offshore of Pacific City and Newport, OR. This equipment is locally exposed at the seabed and/or in the water column. It is not marked by surface buoys.

Mariners are advised to avoid fishing, towing gear or anchoring in the safety areas centered on the coordinates provided in enclosure (5) of LNM 44/14. The avoidance radius is given in nautical miles and varies for each safety zone.

Positions for the OOI safety zones and submarine cable routes can be provided upon request in various formats including Nobeltec, Olex, Coastal Explorer, kml and GIS. The locations of the OOI underwater infrastructure will be charted in the near future.

For additional information or if you become entangled on the OOI infrastructure, please contact the RSN Hotline at (855) 665-1424 or OFCC cell (503) 440-3569 or email ooi-ofcc@uw.edu or 911@ofcc.com.

Charts: 18003 18580 18600

LNM: 41/14

OREGON - CAPE BLANCO TO YAQUINA HEAD – Deployment of Subsurface to Surface Buoy on the Oregon Coast

Oregon State University deployed a subsurface to surface research buoy at position 44-39-30.540N 124-05-53.400W in 82 feet of water. The buoy is yellow and displays a yellow light flashing every 4 seconds (Fl Y 4s) when on the surface. This buoy is designed to submerge for the collection of data and then surface to transmit its data. When the buoy is not on the surface it will be near the seafloor. Vessels are asked to not pass closer than 500 yards to the buoy's position. For additional information contact Oregon State University Assistant Professor Michael Vardaro at (541) 737-9350 or at mvardaro@coas.oregonstate.edu.

Charts: 18520 18580

LNM: 16/14

COLUMBIA RIVER – PACIFIC OCEAN TO HARRINGTON POINT – Deterioration of the North and South Jetties at the Columbia River Entrance

The North and South Jetties at the Columbia River Entrance have suffered severe deterioration and may no longer be correctly represented upon the nautical charts of the area. Mariners should use caution when transiting in the vicinity of the jetties and the river entrance. The USACE has scheduled critical repairs of the North Jetty from June 2015 through October 2016, and rehabilitation of the South and North Jetties scheduled for the years 2016 through 2019. More information may be found at the USACE Portland District web site:

<http://www.nwp.usace.army.mil/Locations/OregonCoast/MouthoftheColumbia.aspx>.

Charts: 18500 18520 18521

LNM: 04/15

COLUMBIA RIVER - HARRINGTON POINT TO CRIMS ISLAND - CATHLAMET CHANNEL - Shoaling

Extensive shoaling has been reported on the west side of the Elochoman Slough entrance near Cathlamet, WA. Mariners should exercise caution when transiting this waterway, and keep to the east side of the channel. Mariners unfamiliar with the area should transit with extreme caution and not rely solely on aids to navigation while in the channel.

Chart 18523

LNM: 19/15

COLUMBIA RIVER – PORT OF PORTLAND – Terminal 6 crane in lowered position

A container crane at the Port of Portland, OR Terminal 6 at river mile 102.5 will remain in the lowered position until approximately 07 Apr 16 for maintenance and new equipment installation. The crane will extend approximately 104 feet out over the river at a height of approximately 115 feet above Columbia River Datum and will be lighted at night. Mariners are advised to transit the area with caution. For additional information, contact Mr. Fred Myer at 503-415-6542 or email Fred.Myer@portofportland.com.

COLUMBIA RIVER – PORT OF PORTLAND – Terminal 6 crane in lowered position

Chart 18526

LNM: 07/16

COLUMBIA RIVER PACIFIC OCEAN TO HARRINGTON POINT; ILWACO HARBOR – Baker Bay West Channel shoaling

Extensive shoaling has been reported on the northern edge of Baker Bay West Channel, northwest of Baker Bay West Channel Light 11 (LLNR 14455). Mariners should exercise caution when transiting this waterway. Mariners unfamiliar with the area should transit with extreme caution and not rely solely on aids to navigation while in the channel. For additional information contact Mr. Jarod Norton at 503-808-4348.

Chart 18521

LNM: 02/16

WASHINGTON – GRAYS HARBOR – Hazard to navigation (Revised from LNM 05/16)

A 20 foot by 20 foot section of dock has sunk in the Hoquiam River in approximate position 46-58.679N 123-52.950W causing a hazard to navigation. The hazard is marked by a white spherical buoy with a blue horizontal stripe that is lighted. Vessels are advised to use extreme caution while transiting the area, especially at low tide. For additional information mariners are advised to contact U. S. Coast Guard Sector Columbia River at 503-861-6211.

Chart 18502

LNM: 07/16

WASHINGTON – COLUMBIA RIVER TO DESTRUCTION ISLAND – Subsurface moorings

NOAA has deployed subsurface acoustic recorder moorings for research at the locations listed in Enclosure (4) of LNM 07/16. The moorings are on station and will begin to be retrieved in July 2016. They are set at various depths up to 500 meters and as shallow as 40 meters. NOAA is requesting that mariners maintain a distance of 500 yards from the positions noted. For additional information contact Dr. M. Bradley Hanson at (206) 860-3220 or email brad.hanson@noaa.gov.

Charts: 18480 18500

LNM: 07/16

WASHINGTON – AREA TO BE AVOIDED - OLYMPIC COAST NATIONAL MARINE SANCTUARY - Temporary surface buoy deployment

NOAA has recovered most of its Olympic Coast National Marine Sanctuary scientific moorings and deployed one scientific mooring for the winter. The mooring is marked with a bright orange surface float. The mooring is located off Teahwhit Head at a depth of 42 meters at approximate position 47-52.560N 124-44.000W and will be in place until approximately June 2016. Two of the moorings previously set during the summer were not present on their assigned stations and are consider missing or adrift. Mariners are advised to use caution while transiting the area. For additional information contact LTJG Justin Ellis at voc.ocnms@noaa.gov or (360) 457-6622 x 14.

Charts: 18480 18500

LNM: 06/16

WASHINGTON - APPROACHES TO ADMIRALTY INLET – SEQUIM BAY – Temporary Equipment Deployment (Revised from LNM 39/15)

The Pacific Northwest National Laboratory has temporarily deployed submerged scientific equipment in the entrance to Sequim Bay in approximate position 48-04-45.412N, 123-02-41.280W. The submerged equipment will be in place until approximately 30 Jun 16. Cables run from the equipment to the dock just west of its position on the seafloor and will be marked by two white warning buoys, one to the north and one to the south. Vessels are asked to not pass between the buoys and keep a minimum of 20 yards to from both buoys. For additional information contact Ms. Susan Southard, (360) 681-3615 or sue.southard@pnnl.gov.

Chart 18471

LNM: 47/15

WASHINGTON – TACOMA HARBOR – PUYALLUP RIVER - Tacoma/Fife- I-5 Bridge Construction

Hamilton Construction Company is constructing the new I-5 bridge north of the existing northbound bridge over the Puyallup River. Operating hours are from 0700 to 1800, Monday through Saturday, subject to change. Two work trestles have been constructed in the river. One work trestle has been constructed along and parallel to the north bank and one along and parallel to the south bank with an 80' wide navigable channel between the 12" yellow floating booms that are anchored around the trestles at approximate position 47-14-25.700N 122-23-58.000W. The work trestle structures will remain in place until November 2017. No barges will be used on the project. There will be three yellow floating water quality monitoring stations anchored in the river that are marked with amber flashing lights. The stations' positions will move as the work progresses. There will be one station secured upriver, one downriver and one adjacent to the work area as shown in enclosure (6) of LNM 25/15. The monitoring stations are tethered to mooring buoys. Mariners are requested to not transit between the mooring buoys and the monitoring stations, remain in the 80' navigation channel, and reduce wake when transiting the area. For additional information contact Mr. Jeff Phillips at (541) 953-9179.

Chart 18453

LNM: 45/15

WASHINGTON – LAKE WASHINGTON – Annual summer refill

The USACE will begin the annual summer refill of Lake Washington on 18 Feb 16. The final refill target is 22.0 feet by 01 May 16 measured at the locks. Owners of vessels, docks, slips and other structures are advised to monitor the rise in lake elevations. For more information, review the Corp's web site at: <http://www.nwd-wc.usace.army.mil/nws/hh/www/index.html#>, or call (206) 764-3750.

Chart 18447

LNM: 08/16

WASHINGTON – STRAIT OF JUAN DE FUCA TO STRAIT OF GEORGIA AND PUGET SOUND – WHIDBEY ISLAND DGPS SITE – DGPS off-air time

The U.S. Coast Guard Navigation Center has approved off-air time for the Whidbey Island, WA DGPS site for scheduled maintenance from 1000 to 1400 on 17 May 16, with an alternate time of 1000 to 1400 on 18 May 16. There will be no significant loss of coverage due to dual coverage in the area. For additional information or objections, contact the Navigation Center DGPS Operations at (703) 313-5902 or at <http://www.navcen.uscg.gov/?pageName=dgpsSiteInfo¤tOutages>.

WASHINGTON – STRAIT OF JUAN DE FUCA TO STRAIT OF GEORGIA AND PUGET SOUND – WHIDBEY ISLAND DGPS SITE – DGPS off-air time

Charts: 18421 18440 18465

LNM: 09/16

WASHINGTON – STRAIT OF JUAN DE FUCA TO STRAIT OF GEORGIA – FRIDAY HARBOR – Scientific Seafloor Equipment Deployment

Cornell University has deployed scientific seafloor equipment near the University of Washington Friday Harbor Labs dock. The equipment consists of four hydrophone mounts that extend four feet above the seafloor with a series of cables connecting them to a shore side facility. All associated equipment is scheduled to be removed by 15 Feb 18. Details of locations for the equipment and cables are shown in enclosure (4) of LNM 45/14. Mariners are advised to avoid dragging or deploying gear near these locations. For additional information, contact Mr. Charles H. Greene at (607) 275-1662 or email chg2@cornell.edu.

Chart 18434

LNM: 38/14

WASHINGTON – STRAIT OF JUAN DE FUCA TO STRAIT OF GEORGIA – HARO STRAIT – Acoustic Recorder Deployed

Acoustic recorders have been set at three locations in Haro Strait, and will be in place until further notice. Mariners are advised to avoid dragging or deploying gear near these locations. The recorders are at the following positions:

48-30-51.73N 123-09-00.36W, 6 feet above the bottom
 48-30-27.63N 123-11-54.35W, 50 meters below the surface
 48-30-26.72N 123-11-50.69W, 40 meters above the bottom

Chart 18433

LNM: 23/13

WASHINGTON – STRAIT OF JUAN DE FUCA AND BOUNDARY PASS – Temporary Subsurface Buoy Deployment

Subsurface oceanographic mooring buoys extending 10 meters above the ocean floor have been temporarily set at the following positions until further notice. Mariners are advised to avoid dragging or deploying gear near these locations:

48-21.639N, 124-13.813W
 48-30.499N, 124-45.027W
 48-45.978N, 123-02.413W

Charts: 18431 18432 18460 18480

LNM: 18/13

STRAIT OF JUAN DE FUCA TO STRAIT OF GEORGIA – BOUNDARY PASS AND HARO STRAIT - Placement of underwater equipment

Subsurface research buoys have been placed in Boundary Pass and Haro Strait at approximate positions 48-41-07.32N 123-16-26.10W and 48-30-23.68N 123-12-37.92W. The buoys are set to float approximately eight meters above the seabed. Additional subsea research buoys are located in Canadian waters. For additional information contact Mr. Marc LeBlanc at (250) 363-2034.

Chart 18421

LNM: 08/16

MONTANA – BILLINGS DGPS SITE – DGPS Off-Air time

The U.S. Coast Guard Navigation Center has approved off-air time for the Billings, MT, DGPS broadcast site to conduct maintenance from 0900 to 1100 Mountain Daylight Time (MDT) on 11 Apr 16, with an alternate time of 0900 to 1100 on 12 Apr 16. For additional information or objections, contact the USCG Navigation Center DGPS Operations at (703) 313-5902 or <http://www.navcen.uscg.gov/?pageName=dgpsSiteInfo¤tOutages>.

LNM: 07/16

SECTION VIII - LIGHT LIST CORRECTIONS

An Asterisk *, indicates the column in which a correction has been made to new information

| (1) No. | (2) Name and Location | (3) Position | (4) Characteristic | (5) Height | (6) Range | (7) Structure | (8) Remarks |
|------------|---|---------------------------------|-----------------------|---------------|--------------|---------------------------|---|
| 14900 | POST OFFICE RANGE REAR LIGHT 239 yards, 346.7° from front light. | 45-37-53.950N 122-47-40.226W | Iso W 6s | 51 | | KRB on skeleton tower. | Visible 14° each side of range line. 13/16 |
| 16545 | * SKUNK BAY LIGHT | 47-55-09.300N 122-34-11.316W | F R | | | White octagonal tower. | Private Aid. 13/16 |
| | | * | | * | | | |

SECTION VIII - LIGHT LIST CORRECTIONS (Continued)

| (1) No. | (2) Name and Location | (3) Position | (4) Characteristic | (5) Height | (6) Range | (7) Structure | (8) Remarks | |
|------------|---|---------------------------------|-----------------------|---------------|--------------|---|--|-------|
| 18825 | SWINOMISH CHANNEL SOUTH ENTRANCE RANGE REAR LIGHT | 48-21-21.940N 122-34-48.326W | Iso W 6s | 55 | | KRW on skeleton tower, on multi-pile structure. | Visible 14° each side of rangeline. | 13/16 |
| | 1,199 yards, 251.9° from front light. | | | | | | | |
| | * | | | | | | | |
| 19385 | Center Island Reef Daybeacon | 48-29-04.626N 122-50-05.916W | | | | NB on pole. | | 13/16 |
| | | * | | | | | | |
| 19390 | Center Island Reef Daybeacon 6 | 48-29-05.076N 122-50-08.046W | | | | TR on pole. | Ra Ref. | 13/16 |
| | | | | | | | * | |
| 19420 | Undertaker's Reef Daybeacon 5 | 48-31-22.578N 122-49-46.254W | | | | SG on pole. | Ra Ref. | 13/16 |
| | | * | | | | | * | |

ENCLOSURES

Enclosure 1

OREGON - WASHINGTON - IDAHO - MONTANA - Summary of Bridge Lighting Discrepancies and Corrections

LNM: 13/16

Enclosure 2

OREGON - WASHINGTON - COLUMBIA RIVER - Summary of Dredging Operations

LNM: 13/16

Enclosure 3

OREGON - WASHINGTON - COLUMBIA RIVER - Summary of Marine Events

LNM: 13/16

Enclosure 4

Yaquina Bay Entrance Shoaling Survey

Charts: 18561 18581

LNM: 12/16

Enclosure 5

Navigation changes on Lake Washington at SR-520

Chart 18447

LNM: 12/16

Enclosure 6

WDFW 2016 Trawl Survey Announcement

Charts: 18400 18440

LNM: 13/16

If you have any questions, comments, or need additional information concerning this or other LNMs (e.g. additions, deletions, corrections) contact the address or phone number on the front page.

CDR Michele L. Schallip
Chief, Waterways Management Branch
Thirteenth Coast Guard District

BRIDGE LIGHTING DISCREPANCIES AND CORRECTIONS

| BRIDGE LIGHTING DISCREPANCIES | | | | | | |
|--------------------------------------|---------------------|-----------------------|-------------------|---|----------------------|------------|
| Waterway | Light List # | Bridge Name | Location | Status | Date Reported | BNM |
| OREGON COAST | | | | | | |
| Alsea River | 9627 | Alsea Bay Bridge | Waldport, OR | Northeast red lights extinguished | 03/28/2016 | 0268-16 |
| COLUMBIA RIVER | | | | | | |
| Columbia River | 11933 | Hood River Bridge | Hood River, OR | Draw span damaged, unable to open ETR unknown | 10/21/2015 | 0909-15 |
| Columbia River | 11801 | Bridge of the Gods | Cascade Locks, OR | Aero red lights extinguished | 03/28/2016 | 0265-16 |
| SNAKE RIVER | | | | | | |
| None | | | | | | |
| WILLAMETTE RIVER | | | | | | |
| None | | | | | | |
| WASHINGTON COAST | | | | | | |
| None | | | | | | |
| PUGET SOUND | | | | | | |
| Snohomish River | 18594.12 | I-5 Hiway Twin Bridge | Everett, WA | All lights extinguished | 03/28/2016 | 0267-16 |
| IDAHO | | | | | | |
| None | | | | | | |
| <i>* Updated report</i> | | | | | | |
| BRIDGE LIGHTING CORRECTIONS | | | | | | |
| Waterway | Light List # | Bridge Name | Location | Status | Date Reported | BNM |
| OREGON COAST | | | | | | |
| None | | | | | | |
| COLUMBIA RIVER | | | | | | |
| None | | | | | | |
| SNAKE RIVER | | | | | | |
| None | | | | | | |
| WILLAMETTE RIVER | | | | | | |
| None | | | | | | |
| WASHINGTON COAST | | | | | | |
| None | | | | | | |
| PUGET SOUND | | | | | | |
| None | | | | | | |
| IDAHO | | | | | | |
| None | | | | | | |

Dredging operations are scheduled or in progress at the following locations:

| Start Date | End Date | Times | Location | Dredge Vessel | Assist Vessel | Channels Monitored | Disposal Area | LNM |
|-------------------|-----------------|----------------------|--|-----------------------------|---------------------------|---------------------------|---------------------------|------------|
| 26-Feb-16 | 31-Mar-16 | 0600-1800 Mon-Fri | Rogue River; Port of Gold Beach Marina and Boat Ramp | M/V Laura | None | VHF-FM 13 &16 | N/A | 11/16 |
| 11-Apr-16 | 13-Apr-16 | 24 Hrs, 7 Days | Columbia River; Westport - Eureka Lower Channel (RM 47+40 to 48+30) | M/V Yaquina | None | VHF-FM 13 &16 | RM 46 | 13/16 |
| 9-Apr-16 | 10-Apr-16 | 24 Hrs, 7 Days | Columbia River; Gull Island Channel (RM 53+35 to 54+40) | M/V Yaquina | None | VHF-FM 13 &16 | RM 53 | 13/16 |
| 7-Apr-16 | 8-Apr-17 | 24 Hrs, 7 Days | Columbia River; Stella Range (RM 57+00 to 57+30) | M/V Yaquina | None | VHF-FM 13 &16 | RM 57 | 13/16 |
| 5-Apr-16 | 6-Apr-16 | 24 Hrs, 7 Days | Columbia River; Walker Island (RM 60+20 to 60+30) | M/V Yaquina | None | VHF-FM 13 &16 | RM 59 | 13/16 |
| 1-Apr-16 | 4-Apr-16 | 24 Hrs, 7 Days | Columbia River; Slaughters Channel - Lower Dobelbower (RM 67+00 to 68+00) | M/V Yaquina | None | VHF-FM 13 &16 | RM 70 to 71 | 13/16 |
| 22-Mar-16 | 31-Mar-16 | 24 Hrs, 7 Days | Columbia River; Lower Vancouver Bar (RM 103+00 to 103+40) | M/V Yaquina | None | VHF-FM 13 &16 | RM 101 to 102 | 13/16 |
| 8-Apr-16 | 8-May-16 | 24 Hrs, 7 Days | Grays Harbor: Bar Channel, Entrance Channel & Pt. Chehalis Reach | M/V Bayport | M/V John M & M/V Panther | VHF-FM 13,16 & 66 | South Beach & Pt Chehalis | 13/16 |
| 1-Aug-15 | 8-Jun-16 | 24 Hrs, 7 Days | Whatcom Waterway, Bellingham; BST Dock, Log Pond, GP Dock & Inner Waterway | M/V Palouse M/V Mulketio | MV Skagit & M/V Dungeness | VHF-FM 13 &16 | Upland | 31/15 |

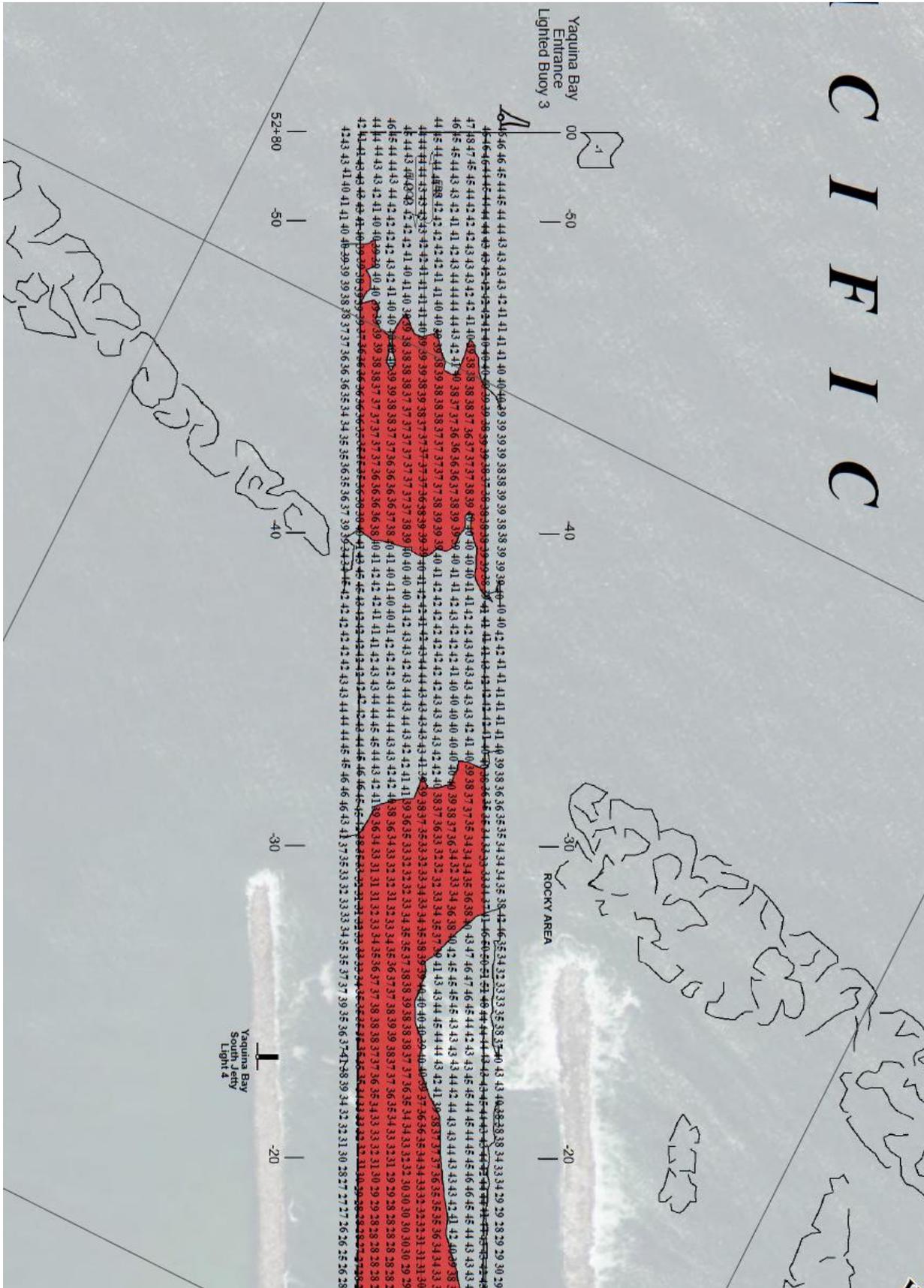
Dredging Sites are subject to change dependant upon weather conditions and Gill Net Fisheries. Any Location listed may be used during the time period of November, although operations at each site may be limited to only a few days.

Mariners are advised that the start and ending dates for dredging activities may vary due to unforeseen on-site conditions, weather and other factors.

The US Army Corps of Engineer dredges request mariners transit at their slowest safe speed to minimize wake when in the vicinity of a dredge and proceed after passing arrangements have been made. Vessel (s) and/or equipment may encroach into the channel.

| SECTOR COLUMBIA RIVER MARINE EVENTS | | | |
|-------------------------------------|-------------|--|--|
| EVENT DATE | TIME | EVENT NAME | EVENT LOCATION |
| 9-Apr-16 | 1300-Sunset | OCSA Sailboat Races | Columbia River between I-5 and I-205 bridges |
| 10-Apr-16 | 1300-Sunset | OCSA Sailboat Races | Columbia River between I-5 and I-205 bridges |
| 16-Apr-16 | 1300-Sunset | OCSA Sailboat Races | Columbia River between I-5 and I-205 bridges |
| 17-Apr-16 | 1300-Sunset | OCSA Sailboat Races | Columbia River between I-5 and I-205 bridges |
| 17-Apr-16 | 0800-1300 | Annual Willamette SUP Cup | Willamette River; Lake Oswego |
| 19-Apr-16 | 1300-Sunset | OCSA Sailboat Races | Columbia River between I-5 and I-205 bridges |
| 21-Apr-16 | 1300-Sunset | OCSA Sailboat Races | Columbia River between I-5 and I-205 bridges |
| 23-Apr-16 | 1000-1500 | Rusty Iron, Canoe Race | Columbia River, Vancouver, WA |
| 26-Apr-16 | 1300-Sunset | OCSA Sailboat Races | Columbia River between I-5 and I-205 bridges |
| 28-Apr-16 | 1300-Sunset | OCSA Sailboat Races | Columbia River between I-5 and I-205 bridges |
| SECTOR PUGET SOUND MARINE EVENTS | | | |
| EVENT DATE | TIME | EVENT NAME | EVENT LOCATION |
| 02-Apr-16 | 0945-1400 | Sound Rowers Jetty Island Race | Everett Harbor |
| 02-Apr-16 | 0900-1600 | STYC Blakely Rock Benefit Race | Shilshole Bay |
| 07-Apr-16 | 1825-2130 | Spring Series | East Passage |
| 09-Apr-16 | 1100-2400 | Patos Island Classic Race | Haro strait/Boundary Pass |
| 10-Apr-16 | 0000-1100 | Patos Island Classic Race | Haro strait/Boundary Pass |
| 13-Apr-16 | 1900-2100 | Windseeker | Commencement Bay |
| 14-Apr-16 | 1825-2130 | Spring Series | East Passage |
| 16-Apr-16 | 1000-2000 | Rich Passage Ramble | Port Orchard to Blake Island |
| 16-Apr-16 | 1000-1605 | Spring Singlehand Doublehand | Commencement Bay |
| 20-Apr-16 | 1900-2100 | Windseeker | Commencement Bay |
| 21-Apr-16 | 1700-2000 | Sound Evening Series- Thursday Night | Shilshole Bay |
| 23-Apr-16 | 1025-1800 | Spring Regatta | East Passage |
| 23-Apr-16 | 0800-2000 | Tri Straits II - Ed Knowles Hein Bank | Guemes Channel to Hein Bank |
| 24-Apr-16 | 1000-1205 | Dan Harris challenge | Bellingham Bay |
| 24-Apr-16 | 1025-1800 | Spring Regatta | East Passage |
| 27-Apr-16 | 1900-2100 | Windseeker | Commencement Bay |
| 28-Apr-16 | 1700-2000 | Sound Evenng Series- Thursday Night | Shilshole Bay |
| 28-Apr-16 | 1825-2130 | Spring Series | East Passage |
| 30-Apr-16 | 1000-2000 | Smith Island / Double Bluff Race | Admiralty Inlet |
| 30-Apr-16 | 0700-1800 | St Martins 11th Annual Dragon Boat Event | Budd Inlet |

NOT TO BE USED FOR NAVIGATION



NOT TO BE USED FOR NAVIGATION

SR 520 Bridge Replacement and HOV Program

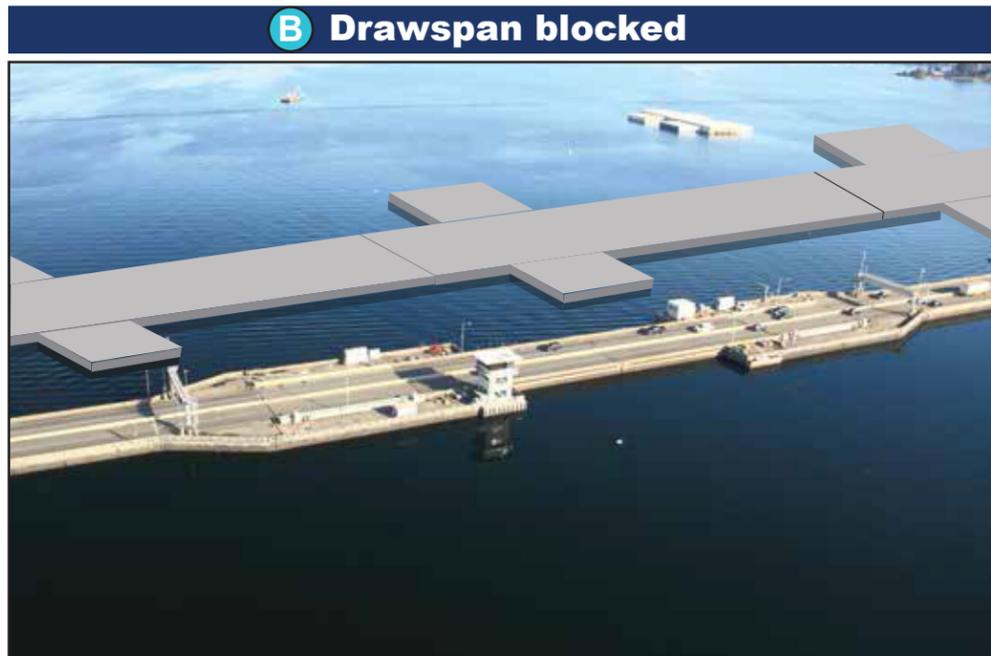
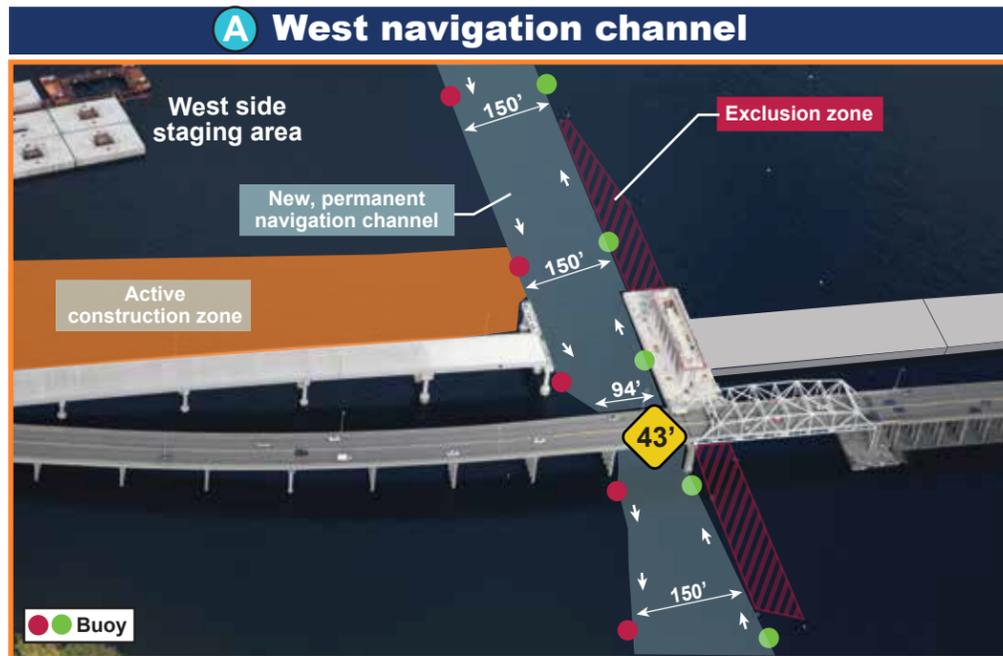


I-5 to Medina: Bridge Replacement and HOV Project

Navigation changes on Lake Washington at SR 520

March 2016

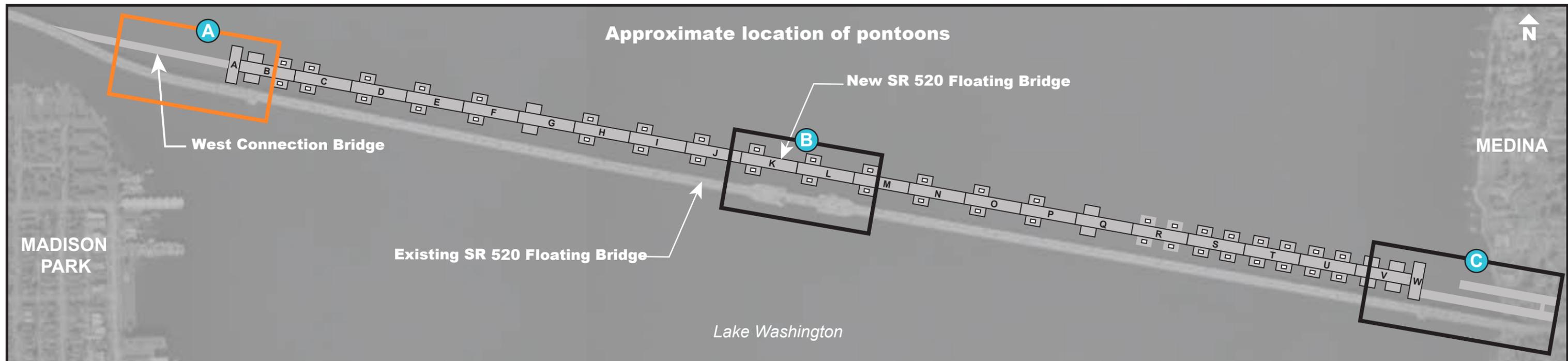
UPDATE: West navigation channel shifted east to new, permanent location on Monday, March 28



On Monday, March 28, the west navigation channel will be shifted east to its new, permanent location.

Drawspan blocked as of Feb. 17, 2015.

East navigation channel remains open.





Announcement of the 2016 WDFW Puget Sound Bottom Trawl Survey

1 March 2016

From 2 May through 26 May 2016, the Washington Department of Fish and Wildlife (WDFW) Marine Fish Science Unit will conduct a bottom trawl survey to assess marine bottomfish living in the waters of Puget Sound, including the Strait of Juan de Fuca, Strait of Georgia, San Juan Archipelago, Hood Canal, Central Sound, and South Sound regions. The vessel chartered by WDFW for the survey is the *F/V Chasina*, a 57-foot seiner/trawler (call sign WYQ-6987; USCG No. 623-734), which will be fishing with a 400-mesh Eastern bottom trawl fitted with 4-inch cookie-gear on the footrope and a 1.25-inch cod-end liner. Signs indicating the research status of the vessel (ie: WDFW RESEARCH) will be posted on both sides of the upper deck throughout the survey.

The Marine Fish Science Unit of WDFW has been conducting this trawl survey annually since 1987 and sampling a series of fixed index stations since 2008. The goals of the survey are to detect long-term changes in fish abundance and to collect biological samples for examining fish age, growth, size distribution, sex ratio, and genetic diversity. At each station, the net will be towed a fixed distance of 0.40 nm at a speed of 1-3 knots. All catches will be sorted and identified to the lowest taxonomic level, weighed, and enumerated, and most of the catch (>95%) will be returned to the sea. A limited amount of the catch will be retained for biological samples—including age structures (otoliths, dorsal spines, opercula), genetic tissue (muscle tissue or fin clip), stomachs, gonads, and whole specimens—that will be preserved and further processed for laboratory analysis. Key species of interest include Pacific Cod, Walleye Pollock, Pacific Whiting (Hake), English Sole, Starry Flounder, Spiny Dogfish, and any species of rockfish, skates, and sharks, but all species of fishes and invertebrates will be identified and recorded.

Limited opportunities are available for non-WDFW scientists to obtain specimens and other biological material that make use of this sampling opportunity. Due to budget and time constraints, WDFW staff will have limited ability to collect specimens or samples from any submitted request, thus each request will be evaluated on a case-by-case basis to determine the impacts of the request on scheduled activities. If time and space permits, requesting parties may have the opportunity to place a staff member on board the trawl vessel on a daily basis (i.e., no overnight stays). Agencies or individuals submitting a sampling request will be required to provide their own transportation for staff and materials to and from the survey vessel, which may require the use of a small boat as the survey vessel does not come into port every night. Note that a WDFW scientific collection permit may be required for documenting the possession or transportation of any biological materials.

A map of the planned stations (Figure 1), a list of planned station coordinates (Table 1), a picture of the *F/V Chasina* (Figure 2), and a tentative schedule (Table 2) are enclosed. For further information regarding the WDFW bottom trawl survey, please contact Jennifer Blaine, Robert Pacunski, or Dayv Lowry. Contact information is below.

Best Regards,

Jennifer Blaine

Puget Sound Groundfish Biologist
WDFW, Marine Fish Science Unit

WDFW Marine Fish Science Unit Contacts:

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Website:

<http://wdfw.wa.gov/fishing/bottomfish/>

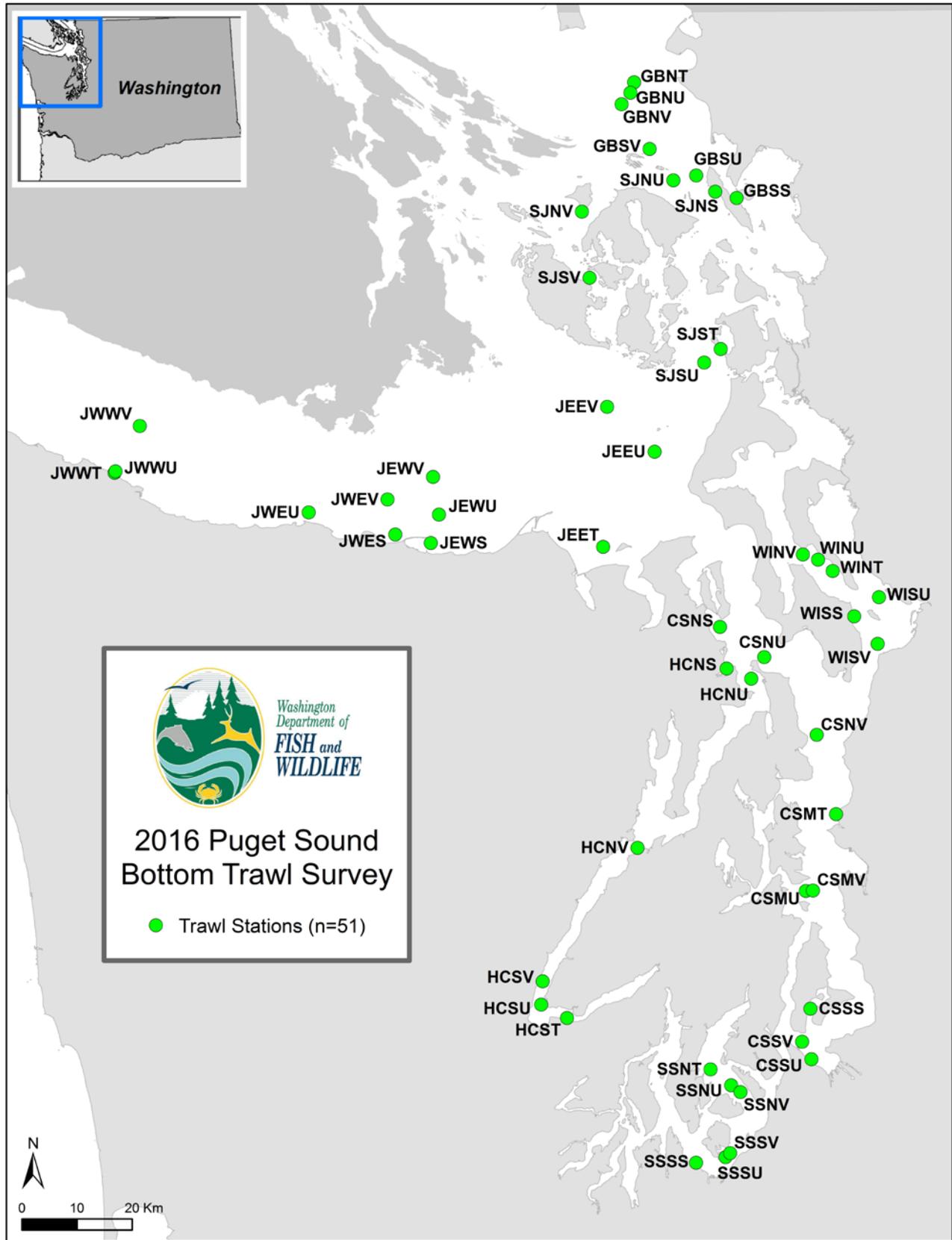


Figure 1. Map of the WDFW bottom trawl survey stations.

Table 1. WDFW bottom trawl sampling stations and target coordinates.

| Region | Depth Zone (fa) | Station Identifier | Latitude | Longitude | Survey Type |
|-------------------|-----------------|--------------------|----------|------------|------------------|
| East Juan de Fuca | 20-40 | JEET | 48.12683 | -122.97767 | Groundfish Index |
| East Juan de Fuca | 40-60 | JEEU | 48.28233 | -122.85167 | Groundfish Index |
| East Juan de Fuca | >60 | JEEV | 48.35600 | -122.96783 | Groundfish Index |
| East Juan de Fuca | 5-20 | JEWS | 48.13250 | -123.39783 | Groundfish Index |
| East Juan de Fuca | 40-60 | JEUW | 48.17891 | -123.37833 | Groundfish Index |
| East Juan de Fuca | >60 | JEWV | 48.24067 | -123.39317 | Groundfish Index |
| West Juan de Fuca | 5-20 | JWES | 48.14600 | -123.48467 | Groundfish Index |
| West Juan de Fuca | 40-60 | JWEU | 48.18100 | -123.69633 | Groundfish Index |
| West Juan de Fuca | >60 | JWEV | 48.20333 | -123.50417 | Groundfish Index |
| West Juan de Fuca | 20-40 | JWWT | 48.24200 | -124.17167 | Groundfish Index |
| West Juan de Fuca | 40-60 | JWWU | 48.24450 | -124.16950 | Groundfish Index |
| West Juan de Fuca | >60 | JWWV | 48.31917 | -124.11183 | Groundfish Index |
| Georgia Basin | 20-40 | GBNT | 48.88700 | -122.90033 | Groundfish Index |
| Georgia Basin | 40-60 | GBNU | 48.86983 | -122.90967 | Groundfish Index |
| Georgia Basin | >60 | GBNV | 48.85100 | -122.93167 | Groundfish Index |
| Georgia Basin | 5-20 | GBSS | 48.69700 | -122.64817 | Groundfish Index |
| Georgia Basin | 40-60 | GBSU | 48.73433 | -122.74767 | Groundfish Index |
| Georgia Basin | >60 | GBSV | 48.77783 | -122.86233 | Groundfish Index |
| San Juan Islands | 5-20 | SJNS | 48.70767 | -122.70083 | Groundfish Index |
| San Juan Islands | 40-60 | SJNU | 48.72650 | -122.80417 | Groundfish Index |
| San Juan Islands | >60 | SJNV | 48.67533 | -123.02967 | Groundfish Index |
| San Juan Islands | 20-40 | SJST | 48.45017 | -122.68867 | Groundfish Index |
| San Juan Islands | 40-60 | SJSU | 48.42817 | -122.72933 | Groundfish Index |
| San Juan Islands | >60 | SJSV | 48.56717 | -123.01083 | Groundfish Index |
| Hood Canal | 5-20 | HCNS | 47.92717 | -122.67767 | Groundfish Index |
| Hood Canal | 40-60 | HCNU | 47.91033 | -122.61783 | Groundfish Index |
| Hood Canal | >60 | HCNV | 47.63433 | -122.89483 | Groundfish Index |
| Hood Canal | 20-40 | HCST | 47.35583 | -123.06467 | Groundfish Index |
| Hood Canal | 40-60 | HCSU | 47.37767 | -123.12667 | Groundfish Index |
| Hood Canal | >60 | HCSV | 47.41583 | -123.12333 | Groundfish Index |
| Whidbey Basin | 20-40 | WINT | 48.08600 | -122.41817 | Groundfish Index |
| Whidbey Basin | 40-60 | WINU | 48.10467 | -122.45367 | Groundfish Index |
| Whidbey Basin | >60 | WINV | 48.11317 | -122.49067 | Groundfish Index |
| Whidbey Basin | 5-20 | WISS | 48.01150 | -122.36667 | Groundfish Index |
| Whidbey Basin | 40-60 | WISU | 48.04250 | -122.30583 | Groundfish Index |
| Whidbey Basin | >60 | WISV | 47.96617 | -122.31033 | Groundfish Index |
| Central Sound | 20-40 | CSMT | 47.68800 | -122.41433 | Groundfish Index |
| Central Sound | 40-60 | CSMU | 47.56267 | -122.48883 | Groundfish Index |
| Central Sound | >60 | CSMV | 47.56317 | -122.47167 | Groundfish Index |
| Central Sound | 5-20 | CSNS | 47.99533 | -122.69350 | Groundfish Index |

| | | | | | |
|---------------|-------|------|----------|------------|------------------|
| Central Sound | 40-60 | CSNU | 47.94567 | -122.58617 | Groundfish Index |
| Central Sound | >60 | CSNV | 47.81793 | -122.45970 | Groundfish Index |
| Central Sound | 5-20 | CSSS | 47.36983 | -122.47983 | Groundfish Index |
| Central Sound | 40-60 | CSSU | 47.28717 | -122.47817 | Groundfish Index |
| Central Sound | >60 | CSSV | 47.31600 | -122.50017 | Groundfish Index |
| South Sound | 20-40 | SSNT | 47.27150 | -122.72033 | Groundfish Index |
| South Sound | 40-60 | SSNU | 47.24517 | -122.67083 | Groundfish Index |
| South Sound | >60 | SSNV | 47.23417 | -122.64867 | Groundfish Index |
| South Sound | 5-20 | SSSS | 47.11867 | -122.75567 | Groundfish Index |
| South Sound | 40-60 | SSSU | 47.12767 | -122.68483 | Groundfish Index |
| South Sound | >60 | SSSV | 47.13433 | -122.67383 | Groundfish Index |



Figure 2. Trawl vessel *F/V Chasina* used for WDFW bottom trawl survey

Table 2. Proposed schedule for the 2016 WDFW bottom trawl survey. Note that two options are given; the option chosen shall be decided during week 2 based upon weather forecasts for the regions to be sampled in weeks 3-4.

| PROPOSED 2016 WDFW Trawl Survey Schedule—OPTION A (STRAITS WEEK 3) | | | | |
|---|-----------------|------------------------------------|----------------------------|------------------------------|
| Day | Date | Depart From | Return to | Survey Area/Stations |
| | Mon 4/25 | <i>GEAR PREP AND CREW TRAINING</i> | | |
| | Tue 4/26 | | | |
| | Wed 4/27 | | | |
| | Thu 4/28 | FISHERMEN'S TERMINAL | FISHERMEN'S TERMINAL | LOAD GEAR |
| | Fri 4/29 | FISHERMEN'S TERMINAL | FISHERMEN'S TERMINAL | LOAD GEAR |
| <i>*BOAT MOVES TO SHILSHOLE*</i> | | | | |
| 1 | Mon 5/2 | SHILSHOLE | QUARTERMASTER HARBOR | CSMU, CSMV, CSSS |
| 2 | Tue 5/3 | QUARTERMASTER HARBOR | MAYO COVE | <CSSS>, SSSV, SSSS, SSSU, |
| 3 | Wed 5/4 | MAYO COVE | BLAKE ISLAND | SSNT, SSNU, SSNV, CSSV, CSSU |
| 4 | Thu 5/5 | BLAKE ISLAND | EVERETT | CSMT, CSNV, WISV |
| | Fri 5/6 | OFF | OFF | -- |
| 5 | Mon 5/9 | EVERETT | EVERETT | WISU, WINV, WINU, WINT, WISS |
| 6 | Tue 5/10 | EVERETT | TAHUYA | <WISS>, HCNV |
| 7 | Wed 5/11 | TAHUYA | PORT LUDLOW | HCST, HCSU, HCSV, HCNS |
| 8 | Thu 5/12 | PORT LUDLOW | PORT LUDLOW | HCNU, CSNU, CSNS |
| | Fri 5/13 | OFF | OFF | -- |
| <i>*BOAT MOVES TO PORT TOWNSEND*</i> | | | | |
| 9 | Mon 5/16 | PORT TOWNSEND | PILLAR POINT | JEET, JEWV, JWWV |
| 10 | Tue 5/17 | PILLAR POINT | PORT ANGELES | JWWT, JWWU, JWEU, JWES |
| 11 | Wed 5/18 | PORT ANGELES | PT ANGELES/ DUNGENESS SPIT | JWEV, JEWU, JEWV |
| 12 | Thu 5/19 | PT ANGELES/ DUNGENESS SPIT | ANACORTES | JEEU, JEEV |
| | Fri 5/20 | OFF | OFF | -- |
| 13 | Mon 5/23 | ANACORTES | ANACORTES/LUMMI | SJST, SJSU, GBSS |
| 14 | Tue 5/24 | LUMMI | SUCIA/MATIA | GBSU, SJNS, SJNU, GBSV |
| 15 | Wed 5/25 | SUCIA/MATIA | WALDRON | GBNT, GBNU, GBNV |
| 16 | Thu 5/26 | WALDRON | ANACORTES (OR SHILSHOLE) | SJNV, SJSV |
| | Fri 5/27 | OFF | OFF | -- |
| <i>*BOAT MOVES TO FISHERMEN'S TERMINAL*</i> | | | | |
| | Mon 5/30 | OFF | OFF | HOLIDAY |
| | Tue 5/31 | FISHERMEN'S TERMINAL | FISHERMEN'S TERMINAL | UNLOAD GEAR |
| | Wed 6/1 | <i>CONTINGENCY FISHING DATES</i> | | |
| | Thu 6/2 | | | |
| ^a Schedule and operating areas are subject to change due to equipment failure, weather, and other conditions. <> Indicates a planned second tow will be conducted at the site | | | | |

PROPOSED 2016 WDFW Trawl Survey Schedule—OPTION B (STRAITS WEEK 4)

| Day | Date | Depart From | Return to | Survey Area/Stations |
|---|-----------------|------------------------------------|---------------------------|------------------------------|
| | Mon 4/25 | <i>GEAR PREP AND CREW TRAINING</i> | | |
| | Tue 4/26 | | | |
| | Wed 4/27 | | | |
| | Thu 4/28 | FISHERMEN'S TERMINAL | FISHERMEN'S TERMINAL | LOAD GEAR |
| | Fri 4/29 | FISHERMEN'S TERMINAL | FISHERMEN'S TERMINAL | LOAD GEAR |
| <i>*BOAT MOVES TO SHILSHOLE*</i> | | | | |
| 1 | Mon 5/2 | SHILSHOLE | QUARTERMASTER HARBOR | CSMU, CSMV, CSSS |
| 2 | Tue 5/3 | QUARTERMASTER HARBOR | MAYO COVE | <CSSS>, SSSV, SSSS, SSSU, |
| 3 | Wed 5/4 | MAYO COVE | BLAKE ISLAND | SSNT, SSNU, SSNV, CSSV, CSSU |
| 4 | Thu 5/5 | BLAKE ISLAND | EVERETT | CSMT, CSNV, WISV |
| | Fri 5/6 | OFF | OFF | -- |
| 5 | Mon 5/9 | EVERETT | EVERETT | WISU, WINV, WINU, WINT, WISS |
| 6 | Tue 5/10 | EVERETT | TAHUYA | <WISS>, HCNV |
| 7 | Wed 5/11 | TAHUYA | PORT LUDLOW | HCST, HCSU, HCSV, HCNS |
| 8 | Thu 5/12 | PORT LUDLOW | PORT LUDLOW | HCNU, CSNU, CSNS |
| | Fri 5/13 | OFF | OFF | -- |
| <i>*BOAT MOVES TO ANACORTES*</i> | | | | |
| 9 | Mon 5/16 | ANACORTES | ANACORTES/LUMMI | SJST, SJSU, GBSS |
| 10 | Tue 5/17 | LUMMI | SUCIA/MATIA | GBSU, SJNS, SJNU, GBSV |
| 11 | Wed 5/18 | SUCIA/MATIA | WALDRON | GBNT, GBNU, GBNV |
| 12 | Thu 5/19 | WALDRON | PORT TOWNSEND | SJNV, SJSV, JEEV |
| | Fri 5/20 | OFF | OFF | -- |
| 13 | Mon 5/23 | PORT TOWNSEND | PILLAR POINT | JEEU, JWWV |
| 14 | Tue 5/24 | PILLAR POINT | PORT ANGELES | JWWT, JWWU, JWEU, JWES |
| 15 | Wed 5/25 | PORT ANGELES | PT ANGELES/DUNGENESS SPIT | JEWV, JWEV, JEUW, JEWS |
| 16 | Thu 5/26 | PT ANGELES/DUNGENESS SPIT | SHILSHOLE | JEET |
| | Fri 5/27 | OFF | OFF | -- |
| <i>*BOAT MOVES TO FISHERMEN'S TERMINAL*</i> | | | | |
| | Mon 5/30 | OFF | OFF | HOLIDAY |
| | Tue 5/31 | FISHERMEN'S TERMINAL | FISHERMEN'S TERMINAL | UNLOAD GEAR |
| | Wed 6/1 | <i>CONTINGENCY FISHING DATES</i> | | |
| | Thu 6/2 | | | |

^a Schedule and operating areas are subject to change due to equipment failure, weather, and other conditions.
 <> Indicates a planned second tow will be conducted at the site