LOCAL NOTICE TO MARINERS

District: 13  Week: 27/19

ISSUED BY: COMMANDER, THIRTEENTH COAST GUARD DISTRICT (dpw)
915 Second Avenue, 35th Floor, Rm 3510, Seattle, Washington 98174-1067
Telephone: (206) 220-7280
Email: D13-LNM@uscg.mil
https://www.pacificarea.uscg.mil/Our-Organization/District-13/District-Staff/-dpw/
https://www.navcen.uscg.gov/?pageName=LnmDistrict&region=13

Coast Pilots, along with corrections, are available at: www.nauticalcharts.noaa.gov/publications/coast-pilot/index.html. Print on Demand (POD) copies are available for purchase at: www.nauticalcharts.noaa.gov/publications/print-agents.html#coast-pilot.

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: https://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 or Email: webmaster@navcen.uscg.mil, or on the World Wide Web: https://www.navcen.uscg.gov

BROADCAST NOTICE TO MARINERS

Urgent marine navigational and weather information is broadcast over VHF channel 22A (157.1 MHZ). Broadcasts are first announced over the distress, safety and calling channel 16 before they are made. All ships in U.S. waters over 20 meters in length are required to monitor VHF channel 16, and must have radios capable of tuning to the VHF simplex channel 22A.

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

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ABBREVIATIONS

A through H
- ADRI - Buoy Adrift
- AICW - Atlantic Intracoastal Waterway
- Al - 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 - Daymark
- DBN/Dbn - Daybeacon
- DBD/DayBD - Dayboard
- DEFAC - Defaced
- DEST - Destroyed
- DISCON - Discontinued
- DMGD/DAMGD - Damaged
- ec - eclipse

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
- LUB - Lighted Whistle Buoy
- LWP - Left Watching Properly
- MBB - Megahertz
- MISS/MSNG - Missing

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
- REF - Reflective
- RRL - Range Rear Light
- RELIGHTED - Aid Rebuilt
- RELOC - Relocated
- RES - Range Light
- RESTORATION - Aid Reset on Station
- RFL - Range Front Light
- RIV - River
- RRASS - Remote Radio Activated Sound Signal
- s - seconds
- SEC - Section
- SHL - Shoaling
- SFL - Silent
- SIG - Signal
- SND - Sound
SECTION I - SPECIAL NOTICES

This section contains information of special concern to the Mariner.

OREGON – WASHINGTON – Coast Guard Marine Safety Information Survey

The U.S. Coast Guard Navigation Center is conducting a user survey as part of a plan to improve distribution of maritime safety information (MSI). The goal is to deliver pertinent data to the maritime community in the most usable, reliable, and secure methods possible. To improve this service, input and feedback from mariners and maritime professionals is vital. We ask that you take a few minutes of your time to complete a six-question survey regarding the data you use, how you use it, and, optionally, your ideas for improvement of our service.

The link to the survey is here: https://www.surveymonkey.com/r/MarineSafetyInformation

Thank you for your time and feedback which will help the Coast Guard continue to improve our products and their delivery, and improve your safety on the water.

Please be aware that although this survey is anonymous, each question has a free-form comment field, which could allow users to enter Personally Identifiable Information (PII). This collection activity is covered under DHS/ALL/PIA-006 General Contact Lists and SORN DHS/ALL-002, DHS Mailing and Other Lists.

OREGON – WASHINGTON – Discontinuance of DGPS Signal

In accordance with the DGPS Discontinuance Federal Register Notice, the termination of the DGPS signal location will occur on 30 Aug 2019 at the following sites:
- Whidbey Island, WA
- Appleton, WA
- Fort Stevens, OR


OREGON – WASHINGTON – COLUMBIA RIVER – BONNEVILLE TO THE DALLES – Wind River Railroad Bridge construction

Advanced American Construction (AAC) will be conducting railroad bridge construction in the Columbia River at the mouth of Wind River (RM 155). Operations include the final railroad bridge replacement and removal of the existing structure. Onsite work will occur from 29 July 2019 to 23 Aug 2019 and mariners are asked to transit the area with extreme caution and minimize wake. All marine navigation under the bridge will be closed from 01 Aug 2019 to 06 Aug 2019 for the bridge replacement. AAC's Derrick Barge DB 4100 and tug Maria will be on station and monitoring VHF-FM channel 16 during the working hours of 0700 through 1700, Monday through Saturday 29 July 2019 to 23 Aug 2019 and 24hrs a day from 01 Aug 2019 to 06 Aug 2019. The floating equipment will remain on station during non-working hours and will be illuminated at night by fixed white lights on all corners. For more information, please contact Kyle Izatt at (503) 849-3336, email Kylei@CallAAC.com, or Todd High at (503) 572-0101, email Toddh@CallAAC.com.

WASHINGTON – LAKE WASHINGTON SHIP CANAL – Fremont Bridge notice

The Coast Guard intends to approve a temporary deviation to the operating schedule to the Fremont Street Bridge (LLNR 18182), across the Lake Washington Ship Canal at mile 2.6, from 0730 to 0800 on 11 Aug 2019. This deviation request supports the Lake Union 10K running event.
If the Coast Guard has not received any comments by 17 Jul 2019, we will approve the requested bridge deviation. For additional information, contact Matthew Donahue, SDOT, at (206) 684-5301.

OREGON – CAPE BLANCO TO YAQUINA HEAD – Underwater cable recovery operations (Revised from LNM 25/19)

Mertech Marine is scheduled to conduct cable recovery operations off the Oregon coast between Bandon and Coos Bay. Operations have been delayed, but are expected to commence by late July and continue for approximately 40 days. The cable recovery operations will be conducted between the shoreline and the 1000 fathom contour, and activities take place within the following boundaries:

Northwest corner: 43-18-13.91N 125-14-05.45W
Southwest corner: 43-05-17.10N 125-12-53.69W
Northeast corner: 43-17-33.83N 124-25-13.18W
Southeast corner: 43-11-01.23N 124-24-25.50W

The operation will be conducted using a dive spread and recovery spread as below with expected start and end date:

- M/V Surveyor – dive support vessel TBD
- M/V Jab – anchor handling vessel TBD
- M/V Pacific Eagle – maneuvering tug TBD
- M/V Layla – cable recovery vessel TBD

Mariners should use caution while operating in this area and stay well clear of these operations. The working vessels can be hailed on VHF-FM channel 16. For more information contact Daan Vermeulen at mertechmarine.co.za.

OREGON – WILLAMETTE RIVER – PORT OF PORTLAND – Portland Parks establishment of Poet’s Beach

Portland Parks & Recreation is establishing a temporary beach and swimming area on the Willamette River, at a location north of the Marquam Bridge (LLNR 14959.5), on the west side of the Willamette River. The beach will be in operation from 11 Jul 2019 to 25 Aug 2019. The swim area will be marked with a float line and white and orange regulatory floats, which will be in place the entire operational period. An attached diagram of the beach and swim area is included in this Local Notice to Mariners as enclosure (5). For any questions, please contact Maya Agarwal with Portland Parks & Recreation at (503) 823-2507 or email at Maya.Agarwal@portlandoregon.gov.

COLUMBIA RIVER – VANCOUVER TO BONNEVILLE – WARRENDALE – NOAA Fisheries barge moored near Pierce Island (Revised from LNM 25/19)

There will be a NOAA Fisheries research barge moored in the vicinity of Pierce Island conducting research in approximate position 45-36-49.565N, 122-01-45.412W from approximately 20 Jun 2019 through 05 Aug 2019. The stern of the barge is attached to a white mooring ball downstream and anchored to a 250 ft. mooring line upstream. The barge is 50 ft wide, 30 ft long and 4 ft tall and marked with yellow flagging on all corners, a radar reflector and a yellow light flashing every 4s (FL Y 4s). Mariners are requested to reduce wake when transiting the area and keep a safe distance. For additional information, contact Gabriel Brooks at (206) 334-6824 and email Gabriel.Brooks@noaa.gov.

COLUMBIA RIVER - PASCO TO RICHLAND - LAKE WALLULA - US-395 (Blue) Bridge notice

WSDOT will be abrasive blast cleaning and painting the US-395 (Blue) Bridge (LLNR 13057) at Columbia River mile 330 from 07 Jul 2019 to 23 Mar 2020. The working hours will be Mon-Sat from 0700 to 1700. Scaffolding and containment will be installed reducing the vertical clearance from 61 feet to 58 feet. A working barge will be moored under the area of work, and lighted per the Coast Guard Navigation Rules of the Road. Mariners may transit under the bridge at any time, but should be aware of fall hazards. For more information, contact the site superintendent, Adam Cady, at (585) 905-1160.

SNAKE RIVER - LOWER GRANITE LAKE - LOWER GRANITE RESERVOIR - Juvenile sturgeon survey

Idaho Power is conducting a survey of juvenile sturgeon on the Snake River in Lower Granite Lake from RM 108 to RM 145 from 01 Jul to 31 Jul 2019. The survey will consist of up to 14 benthic plankton nets positioned on the lake bottom. The nets will be positioned outside, but near the navigational channel and nets will maintain a vertical clearance of 30 feet. Each net will be marked with at least one fluorescent orange buoy with reflective tape, identification, and sample permit numbers. An additional staff buoy with orange flag and white flashing light will be used during nighttime hours. This study will take place only during weekdays and during daylight and nighttime hours. Nighttime nets will be marked with white flashing lights. For additional information, contact Idaho Power Environmental Department, Jake Hughes, at (503) 435-9740 or email jhughes@idahopower.com.

IDAHO – SALMON RIVER – Special Bridge Notice

The Coast Guard has issued a public notice announcing a bridge permit application from Federal Highways Administration (FHWA) Western Federal Lands Highway Division (WFLHD) for approval of location and plans for the replacement of a fixed pedestrian pack animal bridge over a
WASHINGTON – PUGET SOUND – PORT TOWNSEND – Indian Island small boat exercise

The U.S. Navy will conduct a Small Boat Drilling Exercise in the vicinity of Naval Magazine Indian Island on 10 Jul 19 and 11 Jul 19, between the hours of 1000-1600. The exercise will take place in the water near the Ammunition Pier's port security barrier located at approximate position 48°43'38.9"N 122°46'36.7"W. The exercise will include a towing evolution from the event area south to Crane Point at approximate position 48°44'33.4"N 122°45'10.2"W. The vessels will monitor VHF-FM channels 69 and 16. Mariners are requested to maintain a safe distance of at least 1,000 yards in all directions from the Ammunition Pier and Explosive Anchorage area listed on Chart 18464, as well as 500 yards from any vessel engaged in exercises and towing operations. For more information, contact Naval Magazine Indian Island, Brian Nelson, at (360) 396-5361 or email brian.t.nelson3@navy.mil.

Chart 18464

WASHINGTON – PUGET SOUND – SEATTLE TO BREMERTON – DUWAMISH WATERWAY – South Park Bridge Notice

The Coast Guard has approved a permanent rule change to the operating schedule that governs the South Park Bridge (LLNR 16888), on the Duwamish Waterway, mile 3.8, in Seattle, WA. The rule addition reads as follows:

33 CFR 117.1043 Duwamish Waterway

(a) (3) Between the hours of 2300 and 0700, Monday through Sunday, the South Park Bridge shall open if at least a 12 hour notice is given by telephone or VHF radio to the drawtender at the South Park Bridge. If emergency responders require a bridge opening between 2300 and 0700, the South Park Bridge shall open within 45 minutes from initial notification to the Fremont Bridge operator. Vessels engaged in sea-trials or dredging activities may request a standby drawtender to open the bridge, on demand, during sea-trials and/or dredging operations, if at least a 24 hour notice is given to the South Park Bridge drawtender.

Mariners may contact the South Park Bridge via VHF channel 13, or phone (206) 549-2896. The Fremont Bridge may be contacted via VHF channel 13, or phone (206) 386-4251 (between 2300 and 0700 only). For more information on this rule change, contact the Coast Guard Bridge Administrator, Steve Fischer, at (206) 220-7282 or email at Steven.m.Fischer3@uscg.mil

Chart 18450

WASHINGTON – LAKE WASHINGTON SHIP CANAL AND LAKE UNION– Ballard, Fremont and University Bridges notice

The Coast Guard has issued a temporary deviation from the operating schedule that governs three Seattle DOT bridges that cross the Lake Washington Ship Canal in Seattle, WA: the Ballard Bridge (LLNR 18180), mile 1.1, the Fremont Bridge (LLNR 18182), mile 2.6, and the University Bridge (LLNR 18235), mile 4.3. The deviation is necessary to accommodate heavier than normal roadway traffic associated with a fireworks display over Lake Union. The bridges will remain in the closed-to-navigation position prior to and after the fireworks display. To facilitate this event, the drawspans of these bridges will be maintained in the closed-to-navigation positions as follows:

- The Fremont Bridge need not open to marine vessels from 2100 on 04 Jul 2019 to 0030 on 05 Jul 2019;
- The Ballard Bridge and University Bridge need not open to marine vessels from 2200 on 04 Jul 2019 to 0030 on 05 Jul 2019.

Vessels which do not require bridge openings may continue to transit beneath these bridges during the closure periods. The lift spans will be required to open, if needed, for vessels engaged in emergency response operations during this closure period. In accordance with 33 CFR 117.35(e), the drawspans must return to their regular operating schedule immediately at the end of the designated time period. For additional information, contact Matt Donahue at (206) 684-5301.

Chart 18447

WASHINGTON – LAKE WASHINGTON SHIP CANAL – Bridge inspection

WSDOT personnel will be inspecting the Interstate 5 Highway Bridge (LLNR 18230) that spans the Lake Washington Ship Canal at Mile 4.2 in Seattle, WA. The inspection will take place between 0500 and 1200 on 13 and 14 Jul 2019 and between 0500 and 1200 on 20 and 21 Jul 2019.

The bridge will be inspected using two Under-Bridge Inspection Trucks (UBITs) that occupy a portion of the roadway. The work will have a minimal impact on vessel traffic, reducing the vertical clearance by up to 10 feet, but mariners are advised to use caution while transiting the area. For additional information, contact David McLenna at 360.999.2272 or mclenda@wsdot.wa.gov

Chart 18447

WASHINGTON – PEND OREILLE RIVER – Dredging at Metaline Riverfront Park

Orion Marine will begin maintenance dredging on 01 Jul 2019 at the Metaline Riverfront Park Boat Launch on the Pend Oreille River in between Box Canyon Dam and Boundary Dam. The project is located at position 48°51'11.6"N 117°23'06.7"W. Orion's Portable Construction Barge will be onsite and monitoring VHF-FM channel 15. Mariners are requested to use caution and reduce wake while transiting the area. For more information, contact Orion Marine, Stetson Shearer at (253) 365-7368, or Jason Morgan at (253) 279-4332.

Chart 18447

OREGON – WASHINGTON – FCC enforcement advisory on non-compliant AIS devices

Public Notice 05-19 solicits comments and is available at https://www.navcen.uscg.gov/D13BN. Questions or comments can be addressed to the District Bridge Manager, Steve Fischer at (206) 220-7282, or steven.m.fischer3@uscg.mil

LNM: 26/19

WASHINGTON – PUGET SOUND – FCC enforcement advisory on non-compliant AIS devices

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LNM: 26/19

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LNM: 26/19

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LNM: 26/19
The Automatic Identification System (AIS) is designed to mitigate collisions and enhance situational awareness by exchanging real-time vessel navigation information autonomously and continuously. AIS is required to be properly installed, maintained, and used – but foremost, users should ensure they are buying a true AIS and not a knock-off sold on the internet. AIS equipment that is non-compliant and non-certified to adopted international standards can confuse, degrade or even disrupt other users’ systems; and is illegal to be marketed, sold or used in the U.S. On 28 Nov 2018, the FCC issued an enforcement advisory [https://docs.fcc.gov/public/attachments/da-18-1211a1.pdf] outlining the policy to sellers, advertisers, and operators of noncertified automatic identification systems devices like those used for fish net buoys. Violators may be subject to FCC penalties, including but not limited to, substantial monetary fines of up to $19,639 per day for marketing violations and up to $147,290 for an ongoing violation. Given the potential harm these devices may have on navigation safety and the Coast Guard’s interest in all AIS devices being operated and maintained in proper order, the Coast Guard will assist the FCC in enforcement. Coast Guard type-approved devices are labeled as such and numbered, either as USCG 165.155.xxxx or 165.156.xxxx. Similarly, they will also be labeled with an FCC type-certification number. A listing of these devices can also be found on their respective authorized equipment web pages. For Coast Guard visit https://cgmx.uscg.mil/Equipment/EquipmentSearch.aspx and for the FCC Office of Engineering and Technology at https://apps.fcc.gov/oetcf/eas/reports/GenericSearch.cfm. For more information on AIS, how to properly install and operate it, and the nation’s AIS network, visit the Navigation Center (NAVCEN) AIS website at https://www.navcen.uscg.gov/?pageNumber=AISmain

**CALIFORNIA – OREGON – WASHINGTON – COAST LINE AND OFFSHORE – NOAA and Saildrone joint ocean survey operations**

Saildrone Inc. is conducting oceanographic and fisheries acoustic surveys in collaboration with NOAA on the US West Coast from 17 Jun 2019 through August 2019, 24 hours a day, for the purpose of weather, oceanographic and fisheries research. The survey will be conducted by seven unmanned surface vehicles, called saildrones, each 23ft, orange in color with a white all-round light and marked “SAILDRONE”. The Saildrones will deploy from Alameda, CA, and Neha Bay, WA. They will be conducting coastal and offshore surveys along the coast between Neha Bay, WA, and Point Conception, CA. All drones are unmanned and windpowered and will have limited maneuverability during survey operations. Mariners are requested to transit areas with caution and to remain greater than 500 meters away from the research equipment. Enclosure (4) of this Local Notice to Mariners provides a photo and a description of the saildrone. Questions should be directed to Saildrone Mission Control, missioncontrol@saildrone.com or (510) 722-6070.

**OREGON – UMPQUA RIVER – Bridge Notice**

ODOT will be painting the steel structure under the roadway deck of the Reedsport Hwy 101 Bridge (LLNR 9367) across the Umpqua River at RM 11.1 from 24 Jun 2019 to 13 Jul 2019. Painting will require the use of scaffolding that may reduce the vertical clearance under the bridge up to 6 feet across half of the span at any given time. Contractors will hang signs with amber flashing lights to indicate the reduced clearance. For more information, contact Bryan Mast at (541) 404-8454, and after hours contact the Charleston Bridge operators at (541) 888-4340.

**COLUMBIA RIVER – PACIFIC OCEAN TO HARRINGTON POINT – Temporary Lighted Research Buoy Deployment**

A temporary research buoy, that will monitor dredge spoil deposits, has been deployed approximately 3 NM northwest of the Columbia River North Jetty and 2 NM west of North Head at approximate position 46-18-24N, 124-07-12W. The buoy is yellow with a 5 ft. diameter, and shows a yellow flashing light every 4 seconds (Fl Y 4s). The buoy will be on station until on or about 31 Oct 18. For additional information, contact the Center for Coastal Margin, Observation and Prediction, Michael Wilkin, at (503) 338-6574 or email wilkin@stccmop.org.

**SNAKE RIVER – LAKE HERBERT G. WEST – Delay in lockage times at Little Goose navigation lock**

Mariners will continue to experience approximately a 20 minute delay in lockage time at the Little Goose navigation lock, at Snake River mile 70.3, due to a faulty tainter valve. Repair work is estimated to be complete on 25 Jul 2019. For additional information on this work contact the Little Goose Shift Operator at (509) 399-2233, x231.

**WASHINGTON – EVERTET HARBOR – SNOHOMISH RIVER – Bridge notice**

Advanced American Construction will be performing maintenance operations on BNSF Bridge 37 (LLNR 18591.1) at Snohomish River mile 3.5, from approximately 10 Jul 2019 through 15 Sep 2019. Work includes pile driving and repairs to the bridge fender system. The derrick barge and tug Joseph George will be moored outside of the channel, on the south side of the fender system for the duration of the work. During working hours, Monday – Friday, 0700 – 1730, the tug Joseph George will be monitoring VHF-FM Channel 13. Barges will remain on station during non-working hours and have steady white lights on all corners. Mariners are requested to minimize wake when transiting through the work site. For additional information, contact Evan Clemson at (503) 445-9009 or EvanC@Advanced-American.com.

**NEVADA – CHURCHILL COUNTY – GPS testing**

Saildrones will deploy from Alameda, CA, and Neah Bay, WA. They will be conducting coastal and offshore surveys along the coast between Neah Bay, WA, and Point Conception, CA. All drones are unmanned and windpowered and will have limited maneuverability during survey operations. Contractors will hang signs with amber flashing lights to indicate the reduced clearance. For more information, contact Bryan Mast at (541) 404-8454, and after hours contact the Charleston Bridge operators at (541) 888-4340.

Enclosure (4) of this Local Notice to Mariners provides a photo and a description of the saildrone. Questions should be directed to Saildrone Mission Control, missioncontrol@saildrone.com or (510) 722-6070.

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Advanced American Construction will be performing maintenance operations on BNSF Bridge 37 (LLNR 18591.1) at Snohomish River mile 3.5, from approximately 10 Jul 2019 through 15 Sep 2019. Work includes pile driving and repairs to the bridge fender system. The derrick barge and tug Joseph George will be moored outside of the channel, on the south side of the fender system for the duration of the work. During working hours, Monday – Friday, 0700 – 1730, the tug Joseph George will be monitoring VHF-FM Channel 13. Barges will remain on station during non-working hours and have steady white lights on all corners. Mariners are requested to minimize wake when transiting through the work site. For additional information, contact Evan Clemson at (503) 445-9009 or EvanC@Advanced-American.com.

**NEVADA – CHURCHILL COUNTY – GPS testing**

Saildrones will deploy from Alameda, CA, and Neah Bay, WA. They will be conducting coastal and offshore surveys along the coast between Neah Bay, WA, and Point Conception, CA. All drones are unmanned and windpowered and will have limited maneuverability during survey operations. Contractors will hang signs with amber flashing lights to indicate the reduced clearance. For more information, contact Bryan Mast at (541) 404-8454, and after hours contact the Charleston Bridge operators at (541) 888-4340.

Enclosure (4) of this Local Notice to Mariners provides a photo and a description of the saildrone. Questions should be directed to Saildrone Mission Control, missioncontrol@saildrone.com or (510) 722-6070.
Oregon - Willamette River – Port of Portland – Morrison and Hawthorne Bridges temporary deviation

The Coast Guard has issued a temporary deviation to the operating schedule that governs the Morrison Highway Bridge (LLNR 14955.5), mile 12.8, and Hawthorne Highway Bridge (LLNR 14955.6), mile 13.1, crossing the Willamette River at Portland, Oregon. This deviation is necessary to accommodate the Portland Marathon Run event. This deviation allows the bridges to remain in the closed-to-navigation position to allow safe and timely movement of event participants from 0700 until 1330 on 06 Oct 2019. The vertical clearances for these bridges in the closed-to-navigation position are: 69 feet for the Morrison Highway Bridge and 49 feet for the Hawthorne Highway Bridge (all clearances are referenced to the vertical clearance above Columbia River Datum 0.0.) Vessels which do not require a bridge opening may continue to transit beneath the bridge during this closure period. The bridges 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 effective period of this temporary deviation. For additional information contact Jon Henrichsen at jon.p.henrichsen@multco.us.

Chart 18526

Oregon - Willamette River – Port of Portland – Morrison and Hawthorne Bridges temporary deviation

The Coast Guard has issued a temporary deviation to the operating schedule that governs the Morrison Highway Bridge (LLNR 14955.5), mile 12.8, and Hawthorne Highway Bridge (LLNR 14955.6), mile 13.1, crossing the Willamette River at Portland, Oregon. This deviation is necessary to accommodate the Morrison Highway Bridge temporary deviation

The Coast Guard has issued a temporary deviation to the operating schedule that governs the Morrison Highway Bridge (LLNR 14955.5), mile 12.8, and Hawthorne Highway Bridge (LLNR 14955.6), mile 13.1, crossing the Willamette River at Portland, Oregon. This deviation is necessary to accommodate the Morrison Highway Bridge temporary deviation

The Coast Guard has issued a temporary deviation to the operating schedule that governs the Morrison Highway Bridge (LLNR 14955.5), mile 12.8, and Hawthorne Highway Bridge (LLNR 14955.6), mile 13.1, crossing the Willamette River at Portland, Oregon. This deviation is necessary to accommodate the Morrison Highway Bridge temporary deviation

The Commander, Coast Guard District 13 has issued a public notice announcing a permit application from BNSF Railroad seeking the approval of location and plans for the construction of a replacement bridge over the Little White Salmon River Bridge (No. 66.4), at mile 0.0, position 45-42-40.5N, 121-38-54.7W, located in Skamania County, near Cook, Washington. The existing bridge provides a navigation opening of 120' horizontal clearance and 17.6' of vertical clearance (above OHW). The proposed bridge provides a navigation opening of 287' horizontal clearance and 18.5' of vertical clearance (above OHW).

Bridge Public Notice 06-19 solicits comment and is available at http://www.navcen.uscg.gov/?pagename=pnBridges&Active=1&region=13. Public comments will be received until 12 Jul 2019. Questions or comments should be sent to the Bridge Administrator, Steve Fischer at (206) 220-7282, or steven.m.fischer3@uscg.mil.

Chart 18532

Columbia River – Blalock Island to McNary Dam – McNary Navigation Lock longer lockage times

For additional information or to express concerns, contact the Coast Guard Navigation Center at (703) 313-5900 or at https://www.navcen.uscg.gov/?pagename=dgpsSiteInfo&currentOutages.
Washington – Lake Washington Ship Canal – Ballard, Fremont, and University Street bridge temporary deviations

The Coast Guard intends to approve a request for a temporary deviation from the operating schedule that governs three Seattle Department of Transportation bridges across the Lake Washington Ship Canal in Seattle: the Ballard Street Bridge (LLNR 18180), mile 1.1, the Fremont Street Bridge (LLNR 18182), mile 2.6, and the University Street Bridge (LLNR 18235), mile 4.3. The deviation is necessary to accommodate heavier than normal roadway traffic associated with a fireworks display over Lake Union. The bridges will remain in the closed-to-navigation position prior to and until after the fireworks display. If you cannot support the bridge deviation hours below, please email comments to d13-pf-d13bridges@uscg.mil by 18 Jun 2019.

To facilitate this event, the draws of these bridges will be maintained as follows: the Fremont Bridge need not open to marine vessels from 2100 on 04 Jul 19 to 0030 on 05 Jul 19; the Ballard Bridge and University Bridge need not open to marine vessels from 2200 on 04 Jul 19 to 0030 on 05 Jul 19.

Vessels which do not require bridge openings may continue to transit beneath these bridges during the closure periods. The lift spans will be required to open, if needed, for vessels engaged in emergency response operations during this closure period. 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 additional information, contact Matthew Donahue at (206) 684-5301, or matthew.donahue@seattle.gov.

Washington – Lake Washington Ship Canal – Montlake Bridge temporary deviation

The Coast Guard has issued a temporary deviation from the normal operating schedule that governs the Montlake Street Bridge (LLNR 18240) over the Lake Washington Ship Canal, mile 5.2. The Montlake Street Bridge need not open the draw for marine vessels during heavy road traffic for the University of Washington football games on the following dates and times:
- 31 Aug 2019, 0930 to 1200 and 1430 to 1700;
- 07 Sep 2019, 1700 to 1930 and 2200 to 0030;
- 14 Sep 2019, 1400 to 1630 and 1900 to 2130;
- 28 Sep 2019, TBA at a later date;
- 19 Oct 2019, TBA at a later date;
- 02 Nov 2019, TBA at a later date;
- 29 Nov 2019, 1030 to 1300 and 1530 to 1800.

The deviation is necessary to accommodate vehicular traffic attending football games at Husky Stadium at the University of Washington, in Seattle, Washington. This deviation will allow the Montlake Bridge to remain in the closed-to-navigation position two and a half hours before and two and a half hours after each game. Vessels which do not require a bridge opening may continue to transit beneath this bridge during the closure. The bridge will be required to open, if needed, for vessels engaged in emergency response operations during this closure period. The Coast Guard will publish any updates or changes to this operating schedule in future LNM publications. The bridge shall operate in accordance to 33 CFR § 117.897 at all other times. For more information, contact Colleen Arnold at (425) 739-3700.

**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)**

<table>
<thead>
<tr>
<th>LLNR</th>
<th>Aid Name</th>
<th>Status</th>
<th>Chart No.</th>
<th>BNM Ref.</th>
<th>LNM St</th>
<th>LNM End</th>
</tr>
</thead>
<tbody>
<tr>
<td>645</td>
<td>Yaquina Bay Approach Lighted Whistle Buoy Y</td>
<td>MISSING</td>
<td>18581</td>
<td>1035-18</td>
<td>51/18</td>
<td></td>
</tr>
<tr>
<td>690</td>
<td>Columbia River Approach Lighted Whistle Buoy CR</td>
<td>RAC INOP</td>
<td>18521</td>
<td>0243-19</td>
<td>15/19</td>
<td></td>
</tr>
<tr>
<td>755</td>
<td>Strait of Juan De Fuca Traffic Separation Lane Lighted Whistle Buoy J</td>
<td>LT EXT</td>
<td>18460</td>
<td>0998-18</td>
<td>49/18</td>
<td></td>
</tr>
<tr>
<td>755</td>
<td>Strait of Juan De Fuca Traffic Separation Lane Lighted Whistle Buoy J</td>
<td>RAC INOP</td>
<td>18460</td>
<td>0995-18</td>
<td>48/18</td>
<td></td>
</tr>
<tr>
<td>765</td>
<td>Duntze Rock Lighted Bell Buoy 2</td>
<td>MISSING</td>
<td>18485</td>
<td>0074-19</td>
<td>04/19</td>
<td></td>
</tr>
<tr>
<td>765.1</td>
<td>NOAA Environmental Lighted Buoy 46002</td>
<td>MISSING</td>
<td>18007</td>
<td>0407-17</td>
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### DISCREPANCIES (FEDERAL AIDS) CORRECTED

<table>
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<th>LLNR</th>
<th>Aid Name</th>
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<tbody>
<tr>
<td>15055</td>
<td>Willamette River Light 14</td>
<td>WATCHING PROPERLY</td>
<td>18528</td>
<td>None</td>
<td>27/19</td>
<td>27/19</td>
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### DISCREPANCIES (PRIVATE AIDS)

<table>
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<tbody>
<tr>
<td>612</td>
<td>OSU Cape Arago Research Lighted Buoy</td>
<td>MISSING</td>
<td>18580</td>
<td>0258-19</td>
<td>16/19</td>
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<tr>
<td>10131</td>
<td>East Basin Boat Ramp Buoy 4</td>
<td>MISSING</td>
<td>18521</td>
<td>0429-19</td>
<td>25/19</td>
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### DISCREPANCIES (PRIVATE AIDS) CORRECTED

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<tr>
<th>LLNR</th>
<th>Aid Name</th>
<th>Status</th>
<th>Chart No</th>
<th>BNM Ref</th>
<th>LNM St</th>
<th>LNM End</th>
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<tbody>
<tr>
<td>17902</td>
<td>Hood Canal Research Lighted Buoy A</td>
<td>RESET ON STATION</td>
<td>18476</td>
<td>None</td>
<td>27/19</td>
<td>27/19</td>
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### PLATFORM DISCREPANCIES

<table>
<thead>
<tr>
<th>Name</th>
<th>Status</th>
<th>Position</th>
<th>BNM Ref</th>
<th>LNM St</th>
<th>LNM End</th>
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</thead>
<tbody>
<tr>
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### PLATFORM DISCREPANCIES CORRECTED

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<thead>
<tr>
<th>Name</th>
<th>Status</th>
<th>Position</th>
<th>BNM Ref</th>
<th>LNM St</th>
<th>LNM End</th>
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</thead>
<tbody>
<tr>
<td>None</td>
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<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>LLNR</th>
<th>Aid Name</th>
<th>Status</th>
<th>Chart No.</th>
<th>BNM Ref.</th>
<th>LNM St</th>
<th>LNM End</th>
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<tbody>
<tr>
<td>700</td>
<td>North Head Light</td>
<td>DISCONTINUED</td>
<td>18521</td>
<td>0306-19</td>
<td>18/19</td>
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<tr>
<td>8635</td>
<td>Chetco River Entrance Light 9</td>
<td>TRLB</td>
<td>18602</td>
<td>0436-19</td>
<td>25/19</td>
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<tr>
<td>9520</td>
<td>Siuslaw River Channel Light 14</td>
<td>TRLB</td>
<td>18583</td>
<td>0764-18</td>
<td>37/18</td>
<td></td>
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<tr>
<td>9846</td>
<td>Garibaldi Channel Light 11</td>
<td>TRLB</td>
<td>18558</td>
<td>0857-18</td>
<td>41/18</td>
<td></td>
</tr>
<tr>
<td>14435</td>
<td>Baker Bay West Channel Daybeacon 7</td>
<td>TRUB</td>
<td>18521</td>
<td>0755-17</td>
<td>35/17</td>
<td></td>
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<tr>
<td>15040</td>
<td>Oswego Rock Daybeacon</td>
<td>TRUB</td>
<td>18528</td>
<td>0404-17</td>
<td>20/17</td>
<td></td>
</tr>
<tr>
<td>15595</td>
<td>Grays Harbor Channel Lighted Whistle Buoy 11</td>
<td>RELOCATED FOR DREDGING</td>
<td>18502</td>
<td>0307-19</td>
<td>18/19</td>
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TEMPORARY CHANGES CORRECTED

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<thead>
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<th>LLNR</th>
<th>Aid Name</th>
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<th>Chart No.</th>
<th>BNM Ref.</th>
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PLATFORM TEMPORARY CHANGES

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<th>LNM End</th>
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<tbody>
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PLATFORM TEMPORARY CHANGES CORRECTED

<table>
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<tr>
<th>Name</th>
<th>Status</th>
<th>Position</th>
<th>BNM Ref.</th>
<th>LNM St</th>
<th>LNM End</th>
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<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

SECTION IV - CHART CORRECTIONS

This section contains corrections to federally and privately maintained Aids to Navigation, as well as NOS corrections. 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: NY-NJ-NEW YORK HARBOR - RARITAN RIVER
Main Panel 2245 NEW YORK HARBOR

<table>
<thead>
<tr>
<th>Chart Number</th>
<th>Chart Edition</th>
<th>Date to Mariners</th>
<th>Horizontal Datum Reference</th>
<th>Source of Correction</th>
<th>Current Local Notice to Mariners</th>
</tr>
</thead>
<tbody>
<tr>
<td>12327</td>
<td>91st Ed.</td>
<td>19-APR-97</td>
<td>Last LNM: 26/97</td>
<td>NAD 83</td>
<td>27/97</td>
</tr>
</tbody>
</table>

Chart Title: NY-NJ-NEW YORK HARBOR - RARITAN RIVER
Main Panel 2245 NEW YORK HARBOR

(objective) ADD NATIONAL DOCK CHANNEL BUOY 3 at 40-41-09.001N 074-02-48.001W

<table>
<thead>
<tr>
<th>Corrective Action</th>
<th>Objective of Corrective Action</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(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.

Chart: Columbia River Harrington Point to Crims Island
Main Panel 1739 COLUMBIA RIVER HARRINGTON POINT TO CRIMS ISLAND. Page/Side: N/A

18523 58th Ed. 01-NOV-13 Last LNM: 47/17 NAD 83 27/19

Chart Title: Columbia River Harrington Point to Crims Island
Main Panel 1739 COLUMBIA RIVER HARRINGTON POINT TO CRIMS ISLAND. Page/Side: N/A
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

<table>
<thead>
<tr>
<th>Approved Project(s)</th>
<th>Project Date</th>
<th>Ref. LNM</th>
</tr>
</thead>
</table>

OREGON – COQUILLE RIVER – Conversion of the continuous sound signal to a Marine Radio Activated Sound Signal
(Revised from LNM 16/19)

The U.S. Coast Guard is planning to change the sound signal on Coquille River South Jetty Light 8 (LLNR 8700) from a continuously sounding fog signal to a Marine Radio Activated Sound Signal (MRASS). The date for the completion of this change has been delayed for the allowance of additional public comment. The fog signal will be activated by the maritime users as needed by keying a VHF-FM microphone five (5) times on the assigned frequency of VHF-FM channel 83A (157.175 MHz). The Sound Signal will activate for approximately one half hour (30 minutes) and then cease. A Broadcast Notice to Mariners will be issued upon the completion of the change, and it will be published in Local Notice to Mariners. Mariners are encouraged to share comments on this change and the performance and operation of this aid to navigation. All comments should be sent to the email address D13-PF-LNM@uscg.mil. Any discrepancy for these or other Aids to Navigation should continue to be reported to US Coast Guard Sector North Bend.

Charts: 18580 18588  

COLUMBIA RIVER – CRIMS ISLAND TO VANCOUVER – Testing of LED Range Lights (Revised from LNM 15/19)

The U.S. Coast Guard is testing LED combination lantern systems to replace the incandescent lanterns at the locations listed below. The remaining changes are expected to occur during the spring and summer of 2019. The selected sites are:

Stella Range Front Light (LLNR 10660) the high intensity beam width will be increased from 1° to 3° and the intensity of the light will be increased.
Stella Range Rear Light (LLNR 10665) the overall intensity of the range light will be increased.

Kalama Upper Range Front Light (LLNR 10195) the high intensity beam width will be increased from 1° to 3° and the intensity of the light will be increased.
Kalama Upper Range Rear Light (LLNR 10920) the intensity will be increased.

Willow Upper Range Front Light (LLNR 11155) & Morgan Upper Range Front Light (LLNR 11160) the high intensity beam width will be increased from 1° to 3° and the intensity of the light will be increased.
Willow Upper Range Rear Light (LLNR 11160) the intensity will be increased.
Morgan Upper Range Rear Light (LLNR 11195) will remain unchanged.

Mariners are encouraged to share comments on the performance and operation of these lights as aids to navigation. All comments should be sent to the email address D13-PF-LNM@uscg.mil. Any discrepancy for these or other Aids to Navigation should continue to be reported to US Coast Guard Sector Columbia River.

Charts: 18524 18525  

WASHINGTON - GRAYS HARBOR – Testing of LED Range Lights

The U.S. Coast Guard is testing LED combination lantern systems to replace the incandescent lanterns at the locations listed below. The remaining changes are expected to occur during the spring and summer of 2019. The selected sites in Grays Harbor are:

Cow Point Reach Range G Front Light (LLNR 15810) & Aberdeen Reach Range K Front Light (LLNR 15870) the high intensity beam width will be
increased from 1° to 3° and the intensity of the light will be increased.
Cow Point Reach Range G Rear Light (LLNR 15815) the light sector will decrease from 20° to 8°. The intensity will be increased.

Aberdeen Reach Range K Rear Light (LLNR 15875) the intensity of the light will be increased.

Mariners are encouraged to share comments on the performance and operation of these lights as aids to navigation. All comments should be sent to the email address D13-PF-LNM@uscg.mil. Any discrepancy for these or other Aids to Navigation should continue to be reported to US Coast Guard Sector Columbia River.

WASHINGTON – STRAIT OF JUAN DE FUCA TO STRAIT OF GEORGIA – ROSARIO STRAIT – Change to the light characteristic of Belle Rock Sector Light

The U.S. Coast Guard will be changing the red high intensity beam on Belle Rock Sector Light (LLNR 19395) from a 1.5° beam to a 3° beam. This change will facilitate the installation of a LED lantern, and increase the intensity of both the red and white light characteristic from the current light.

Mariners are encouraged to share comments on this change and the performance and operation of this light and other Aids to Navigation. All comments should be sent to the email address D13-PF-LNM@uscg.mil. Any discrepancy for these or other Aids to Navigation should continue to be reported to US Coast Guard Sector Puget Sound.

Proposed Project(s) | Closing | Docket No. | Ref. LNM
--- | --- | --- | ---
None

Proposed Change Notice(s)
None

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

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 as Enclosure (1) of this Local Notice to Mariners.

SUMMARY OF DREDGING OPERATIONS

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

SUMMARY OF MARINE EVENTS

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

OREGON – COOS BAY – Bridge Notice

ODOT will be painting and preserving the McCullough Highway Bridge (US 101) (LLNR 9009) at North Bend, Oregon, across Coos Bay, mile 9.5, from 01 Apr 2019 through 31 Mar 2021, from 0700-1900 seven days per week. The subject bridge provides 148 feet of vertical clearance, which will be reduced to 145.5 feet with the containment system. The containment will be marked with flashing amber lights. Mariners may transit under the bridge at any time, but are advised to use caution for fall hazards. For additional information, contact Nick Frangopoulos at (330) 540-1008 or vimaspainting@aol.com.

Charts 18587

OREGON - COOS BAY – Isthmus Slough Bridge Notice

The US Coast Guard has approved a Temporary Final Rule (TFR) for the Isthmus Slough Bridge (LLNR 9087) near Coos Bay, OR. The new rule will allow the Oregon Department of Transportation to temporarily operate and open one half of the span, single leaf, for vessel traffic on signal if at least 24 hours notice is given, and reduce the vertical clearance with a work platform from 28 feet to 18 feet from 0600 on 26 Feb 18 through 1800 on 31 Jul 19. The TFR will be up loaded to the Federal Register, and may be read at: https://www.federalregister.gov/. To view the rule,
WASHINGTON – ADMIRALTY INLET – HOOD CANAL – Hood Canal Bridge notice
WSDOT will be conducting inspections and preventative maintenance below the Hood Canal Bridge (LLNR 17769) deck and pontoons. Monday through Friday, 0700 to 1600 from 01 Apr 2019 through 31 Jul 2019. Crews will be on the pontoons under the bridge utilizing containment to catch debris and overspray. Containment will be on the pontoons and not present a hazard to mariners. Mariners are advised to use caution while

OREGON – PORT OF PORTLAND – WILLAMETTE RIVER – Burnside Bridge deviation
The Coast Guard has issued a temporary deviation to the operating schedule that governs the Burnside Bridge (LLNR 14955.4) across the Willamette River at mile 12.4, in Portland, Oregon. The double bascule bridge will be allowed to operate in single leaf mode (one side open only) from 11 Jun 2019 until 31 Oct 2019 to support containment installation and painting. The west leaf will be in the closed-to-navigation position from 0700 to 1800 on 30 Jun 2019; the east leaf will open to marine vessels. The east leaf will be in the closed-to-navigation position from 0700 on 1 Jul 2019 to 1800 on 31 Oct 2019; the west leaf will open to marine vessels. The lift span will be required to open, if needed, for vessels engaged in emergency response operations during this closure period. 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 additional information contact Marc Gross at (971) 673-6200.

WASHINGTON – GRAYS HARBOR – HOQUIAM RIVER – Bridge deviation notice
The USCG has approved a temporary deviation from the opening requirements for the Riverside Bridge (LLNR 16071.3), Hoquiam River mile 0.9, at Hoquiam, Washington, to accommodate bridge maintenance by WSDOT. This deviation will run from 0001 on 15 Apr 2019 to 2359 on 01 Aug 2019 and extends the notice requirement for an opening from one hour to two hours. The Riverside Bridge will not be able to open for emergencies during this time period, and no alternate marine route is available. Mariners should contact WSDOT for an opening by telephone at (360) 533-9360. For more information, contact Doug Krkava at krkava@wsdot.wa.gov. The Coast Guard is considering a temporary rule change, similar to this deviation, which would extend the change in opening requirements until 05 Dec 2020 to allow for the completion of WSDOT’s planned maintenance. That proposed temporary rule change will be announced in a subsequent notice.

WASHINGTON – PACIFIC OCEAN TO HARRINGTON POINT – YOUNGS BAY – Bridge Repair notice
ODOT will be conducting repair work on the Youngs Bay Highway Bridge (LLNR 14573) at Warrenton, Oregon, from 11 Mar 2019 through Nov 2021. Mariners are advised that there will be barges and assist vessels at the work site and a containment system under the bridge reducing vertical clearance. There will be no containment system under the liftspan of the bridge, and the main channel will remain clear for traffic, with no change to the operation of the lift. Mariners are requested to use slow speed to minimize wake. Interested parties can contact the on-site construction manager, Craig Gries at (503) 580-6319 or email at cgries@erstbridge.com

OREGON – COOS BAY – Isthmus Slough Bridge Notice
type in the search box, uscg-2017-0868. For more info on the work or operation of the bridge, contact Sam Dunnavant at (541) 957-3519.

COLUMBIA RIVER – Victoria to Vancouver – Bridge deviation
Chart 18512 LNM: 11/19

WASHINGTON – ADMIRALTY INLET – HOOD CANAL – Hood Canal Bridge notice
WSDOT will be conducting inspections and preventative maintenance below the Hood Canal Bridge (LLNR 17769) deck and pontoons. Monday through Friday, 0700 to 1600 from 01 Apr 2019 through 31 Jul 2019. Crews will be on the pontoons under the bridge utilizing containment to catch debris and overspray. Containment will be on the pontoons and not present a hazard to mariners. Mariners are advised to use caution while

COLUMBIA RIVER – PACIFIC OCEAN TO HARRINGTON POINT – YOUNGS BAY – Bridge Repair notice
ODOT will be conducting repair work on the Youngs Bay Highway Bridge (LLNR 14573) at Warrenton, Oregon, from 11 Mar 2019 through Nov 2021. Mariners are advised that there will be barges and assist vessels at the work site and a containment system under the bridge reducing vertical clearance. There will be no containment system under the liftspan of the bridge, and the main channel will remain clear for traffic, with no change to the operation of the lift. Mariners are requested to use slow speed to minimize wake. Interested parties can contact the on-site construction manager, Craig Gries at (503) 580-6319 or email at cgries@erstbridge.com

Chart 18521 LNM: 10/19

COLUMBIA RIVER – HARRINGTON POINT TO CRIMS ISLAND – CATHLAMET CHANNEL – Bridge notice
Painting and preservation work will be conducted on the Puget Island Highway Bridge (LLNR 10545) (also called the Julia Butler Hansen Bridge) from 15 Apr 2019 until 31 Dec 2019. The Puget Island Highway Bridge crosses Cathlamet Channel at mile 2.7 (Columbia River mile 3.9) near Cathlamet, Washington. The working hours will be 0600 to 1700, Monday to Saturday. This work requires a containment platform; and the vertical clearance across the main channel will be reduced from 75 feet to 73 feet, and from 63 feet to 61 feet across the south channel. The platform will be marked with amber flashing lights and regulatory signs. Mariners are cautioned to watch for falling debris. For more information, contact Mike Sarukos at (727) 254-1142.

Chart 18523 LNM: 13/19

COLUMBIA RIVER – ST. HELENS TO VANCOUVER – LAKE RIVER – River S Bridge replacement project
The U.S. Federal Highways Administration will begin a bridge replacement project for the River S Bridge which crosses the Lake River between Ridgefield, Washington, and the Ridgefield National Wildlife Refuge. From 25 Mar 2019 until approximately 31 Jul 2019, in-water shaft and girder construction will block the navigation channel. Mariners are requested to provide 48 hours advance notice before transiting through the project area to allow for equipment removal and to coordinate safe passage. For additional information or to make arrangements, mariners should contact Mick Cannon (253) 377-1041, Ed Hansen (253) 377-1437, or Jake Brockmoller (253) 888-2514.

Chart 18525 LNM: 15/19

COLUMBIA RIVER – VANCOUVER TO BONNEVILLE – Bridge deviation
The Coast Guard has issued a temporary deviation from the operating schedule that governs the Interstate 5 Highway Bridge (LLNR 11258) across the Columbia River, RM 106.5, between Portland, OR and Vancouver, WA. This deviation is necessary to facilitate the movement of heavier than normal roadway traffic associated with the Independence Day fireworks show near the I-5 Bridge. The bridge will remain in the closed-to-navigation position, and need not open to marine vessels from 2100 to 2359 on 04 Jul 2019. The bridge provides three designated navigation channels with vertical clearances ranging from 39 to 72 feet above Columbia River Datum 0.0 while the lift spans are in the closed-to-navigation position. Vessels which do not require a bridge opening may continue to transit beneath the bridges during this closure period. The lift span will be required to open, if needed, for vessels engaged in emergency response operations during this closure period. 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 additional information contact Marc Gross at (971) 673-6200.

Chart 18531 LNM: 15/19

COLUMBIA RIVER – PACIFIC OCEAN TO HARRINGTON POINT – YOUNGS BAY – Bridge Repair notice
ODOT will be conducting inspections and preventative maintenance below the Hood Canal Bridge (LLNR 17769) deck and pontoons. Monday through Friday, 0700 to 1600 from 01 Apr 2019 through 31 Jul 2019. Crews will be on the pontoons under the bridge utilizing containment to catch debris and overspray. Containment will be on the pontoons and not present a hazard to mariners. Mariners are advised to use caution while

Chart 18587 LNM: 02/18

COLUMBIA RIVER – PACIFIC OCEAN TO HARRINGTON POINT – Youngs Bay – Bridge repair notice
ODOT will be conducting repair work on the Youngs Bay Highway Bridge (LLNR 14573) at Warrenton, Oregon, from 11 Mar 2019 through Nov 2021. Mariners are advised that there will be barges and assist vessels at the work site and a containment system under the bridge reducing vertical clearance. There will be no containment system under the liftspan of the bridge, and the main channel will remain clear for traffic, with no change to the operation of the lift. Mariners are requested to use slow speed to minimize wake. Interested parties can contact the on-site construction manager, Craig Gries at (503) 580-6319 or email at cgries@erstbridge.com

Chart 18521 LNM: 10/19

WASHINGTON – ADMIRALTY INLET – HOOD CANAL – Hood Canal Bridge notice
WSDOT will be conducting inspections and preventative maintenance below the Hood Canal Bridge (LLNR 17769) deck and pontoons. Monday through Friday, 0700 to 1600 from 01 Apr 2019 through 31 Jul 2019. Crews will be on the pontoons under the bridge utilizing containment to catch debris and overspray. Containment will be on the pontoons and not present a hazard to mariners. Mariners are advised to use caution while
WASHINGTON – ADMIRALTY INLET – HOOD CANAL – Hood Canal Bridge notice
transiting the area. For additional information, contact Zane Gardner at (425) 530-7353 or zanecci@gmail.com.
Charts: 18473  18476  18477  LNM: 11/19

WASHINGTON – PUGET SOUND – NORTHERN PART – PORT MADISON AND PORT ORCHARD – Painting of the Agate Pass Bridge
WSDOT will be painting the Agate Pass Bridge (LLNR 17935) on a 24 hour daily schedule from 01 Jun 2019 to 01 Jun 2020 (Monday through Saturday). WSDOT will be using containment to prepare and paint sections of the bridge one section at a time. At mean high water elevation Agate Pass Bridge provides 76 feet of vertical navigation clearance. The containment system will reduce the bridge’s vertical clearance by approximately 8 feet thus reducing the vertical navigation clearance to 68 feet in the vicinity of the containment systems. Bridge navigation lights will not be affected. Vessels that require the bridge’s full vertical clearance, may use a section without containment, plan to navigate at low water or use Rich Passage as an alternate route. Mariners exercise caution for falling debris when transiting underneath the Agate Pass Bridge. For further information please contact the WSDOT Assistant Project Engineer Andy Larson at (360) 874-3011, or email LarsonA@wsdot.wa.gov.
Chart 18411  LNM: 20/19

WASHINGTON – LAKE WASHINGTON SHIP CANAL - George Washington Memorial Bridge Notice (Revised from LNM 01/18)
Washington State Department of Transportation will be conducting painting and preservation operations on the George Washington Memorial Street Bridge (Aurora Avenue Bridge) (LLNR 18184). The work will be conducted from 01 Apr 18 through 31 Oct 20. Hours of work will be from 0700 to 1900, Monday through Saturday. The subject bridge provides 135 feet of vertical clearance will be reduced to 125 feet for containment. The containment will be marked with flashing yellow lights and signage. Half of the 150 feet of horizontal clearance will have containment. Mariners may transit under the bridge at any time, and are advised to use caution while transiting the area. For additional information, contact Nick Hadsell, PM, at (330) 402-3232 or nhadsell@libertymaintenanceinc.com.
Chart 18447  LNM: 26/18

WASHINGTON – LAKE WASHINGTON SHIP CANAL – LAKE UNION – Fairview Avenue Bridge Notice
Preliminary work to install a turbidity curtain for the Fairview Avenue Bridge Replacement project started on 12 Apr 2019. This turbidity curtain will remain in Lake Union waters 24 hours a day for the duration of the project, projected to run through early 2021. Navigation warning lights or beacons will be installed on top of flotation logs indicating the location of the turbidity curtain. Navigation will not be allowed across or beyond the turbidity curtain which indicates the beginning of an active construction zone. The turbidity curtain is located on waterway 8 in front of the Zymo Genetics building and spans the waterway between Seattle Seaplanes and Windermere Real Estate. For more information contact Chris Barnes, SDOT Construction Engineer, (206) 234-1404, and email chris.barnes@seattle.gov.
Chart 18447  LNM: 18/19

WASHINGTON – LAKE WASHINGTON SHIP CANAL – LAKE WASHINGTON - Interstate 90 Highway Bridge construction (Revised from LNM 15/18)
Kiewit-Hoffman will be performing seismic upgrades to the existing approach piers for the Interstate 90 (I-90) Highway Bridge (LLNR 18389 and 18398). The west navigation channel and east navigation channels for the I-90 Floating Bridge will have marine activities, including the moving of barges, but will stay open to mariners. At this time an aerial platform will also be working from the existing bridge structure above. The platform will not restrict the minimum vertical clearances published for the east and west navigation channels. Mariners are advised to use caution while transiting near barges within the Sound Transit E130 project area. These vessels are currently moored to columns and may present hazards. Construction barges located within the work zones will be marked with steady white lights on all four corners. Mariners should maintain a safe distance and minimize wake around all floating barges and other construction vessels. The eastern navigation channel will be open and will not change vertical or horizontal clearances. Two temporary mooring buoys marked with white lights flashing every 4 seconds (Fl W 4s) have been relocated near the bridge for the mooring of the barges. The positions are:
Mooring Buoy (Northwest side of I-90 Floating Bridge) 47-35-32.040N, 122-16-49.740W
Mariners should not deviate from these established paths through navigation channels when open to vessel traffic. Construction and operations at this site are expected to continue through 2020. For additional information contact Matt Larson at (425) 318-5296 or email mattson.larson@kiewit.com.
Chart 18447  LNM: 22/18

WASHINGTON – PUGET SOUND – ANACORTES TO SKagit BAY – DECEPTION PASS – Bridge notice
WSDOT will be cleaning, painting and repairing the bridges over Deception Pass and Canoe Pass south of Anacortes. The work is expected to begin at 0600 on 01 Apr 2019 and be complete by 2000 on 31 Oct 2020. The Deception Pass Bridge has a vertical clearance of 144 feet, and the vertical clearance under the Canoe Pass Bridge is 154 feet. No in-water work will be conducted, and a full containment system will be employed, however, mariners are cautioned that fall hazards will exist. For further information on this project contact the Project Engineer, Shane Spahr, at (360) 848-7103 or email spahrs@wsdot.wa.gov.
Chart 18430  LNM: 06/19

OREGON – SNAKE RIVER - I-84 Freeway Bridge repairs
Oregon Department of Transportation (ODOT) will be repairing the bridge decks that span the Snake River at river mile 374 near Ontario, Oregon. The repair work will be conducted seven days a week, daylight hours only, 1 Apr 2019 to 15 Oct 2019 and 1 Apr 2020 to 31 Jul 2020. The bridge repairs will utilize an under-bridge inspection truck or snooker crane (UBIT) that occupies approximately 10 feet of the vertical span of the bridges. Mariners are advised to use caution while transiting the area. For additional information contact ODOT District 14 Project Manager, Petr Lovasik, Office (541) 823-4021, Cell (541) 709-6889 or email Petr.Lovasik@odot.state.or.us.
Chart 18427  LNM: 06/19

IDAHO – LAKE COEUR D’ALENE – I-90 Blue Creek Bay Highway Bridge Notice
Idaho Transportation Department is conducting repair work to the I-90 Blue Creek Highway Bridge across Lake Coeur D’Alene from Jun 18
through Aug 19. These dates are weather pending. The subject bridge is located at 47-37-38.5N, 116-40-37.3W. This project is in three phases as shown in enclosure (5) of Local Notice to Mariners 28/18. The enclosure shows work zones for mariners to remain clear, and the section of the bridge open for passage during each phase. The work will include heavy construction with fall hazards in the closure areas, and painting and preservation. Hours will be 0700 to 1730, seven days a week for most above water work and all underwater work, except 0700 to 1930 above water a few times per week. The vertical clearance for the navigable section will be 24 feet, and the horizontal clearance will be a minimum of 120 feet. The construction zone will be marked with orange buoys and lighted regulatory no wake buoys. Orange caution signs will be installed from the bridge marking the navigable section. Mariners may transit under the bridge span with no active working, but at minimum safe speed. The point of contact for the construction company is Skip Delwisch at (208) 600-2595.

LNM: 25/18

COLUMBIA RIVER – SNAKE RIVER – 2019 Summer lockage schedule for recreational vessels
The USACE, Walla Walla District, is implementing the 2019 summer lockage schedule for the passage of recreational vessels through the following navigation locks:

- McNary Lock and Dam Columbia River Mile 292 (541) 922-2231
- Ice Harbor Lock and Dam Snake River Mile 9.7 (509) 543-3231
- Lower Monumental Lock and Dam Snake River Mile 41.6 (509) 282-7231
- Little Goose Lock and Dam Snake River Mile 70.3 (509) 399-2233 x231
- Lower Granite Lock and Dam Snake River Mile 107.5 (509) 843-2231

The following annual recreational craft lockage schedules will be implemented for all the locks beginning 15 May 2019 through 14 Sep 2019 and applies to McNary, Lower Monument, Little Goose and Lower Granite:

Upstream Direction Times: 0900, 1200, 1500, 1800, 2100
Downstream Direction Times: 0930, 1230, 1530, 1830, 2130

Due to maintenance issues at the Ice Harbor navigation lock, recreational vessels may only use the lock twice daily; at 9 AM for upstream traffic, and at 6 PM for downstream traffic. Subject to the discretion of the Ice Harbor lock operator, recreational vessels may be allowed to lock through with commercial traffic at other times. Recreational vessel operators are encouraged to use upstream or downstream boat launches as appropriate to eliminate the need to use the Ice Harbor lock. Additionally, from 15 May through 14 September, McNary lockage times may take as long as 45 minutes. From 15 May through 31 Jul, Little Goose lockage times may take as long as 45 minutes.

The Corps will consider special lockages, outside the above scheduled lockage times, for flotillas or other unique activities sponsored by yacht clubs, marinas, and other groups, provided advance (at least 24 hours) arrangements have been made with the appropriate control room operator. When a recreational vessel lockage schedule is in effect, recreational vessels will only be allowed to lock through at the times designated for such lockages and they will take precedence over commercial vessels. Commercial vessels will continue to be locked through upon arrival except during the times specified for recreational vessel lockages. At the discretion of the lock operator, recreational vessels may be allowed to lock through with commercial traffic. Everyone in the vessel must be wearing a personal floatation device throughout the duration of the lockage. All vessel owner/operators lock through at their own risk and must follow the directions of the lock operator when using the 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 the USACE Safe Lockage Policy for Recreational Craft on the Columbia and Snake for additional safety requirements, https://www.nww.usace.army.mil/Portals/28/docs/navigation/locking.pdf. For additional information on this matter, please contact the Operations Division, at (509) 527-7112 or (509) 527-7364.

Charts: 18541 18545 18546 18547 18548

LNM: 21/19

SNAKE RIVER – LAKE BRYAN – Little Goose Navigation Lock notice
Vessels transiting the Little Goose Navigation lock may not tie up to or rub against the upstream floating guidewall, due to damage, until further notice. These restrictions will remain in place until repairs can be made to the floating guidewall keyway and cables. For additional information, contact the Little Goose Operator at (509) 399-2233.

LNM: 13/19

WASHINGTON – PUGET SOUND – LAKE WASHINGTON SHIP CANAL – Future schedule for Hiram M. Chittenden Large Lock maintenance closures
USACE Seattle District has released a projected schedule for extended maintenance outages of the large lock chamber at the Hiram M. Chittenden Locks in Ballard. In 2019, USACE will commence the first of five extended 45-day closures to replace the valve gates, which are original equipment that must be replaced to keep the 101-year-old Chittenden Locks safe and operational for years to come. The projected 45-day closure dates are:

2019: 12 Oct – 30 Nov
2020: 12 Feb – 02 Apr
12 Oct – 30 Nov
2021: 12 Feb – 02 Apr
09 Nov – 24 Nov

For more information, contact the Seattle District Public Affairs Office, Bill Dowell at (206) 764-3464 or email william.r.dowell@usace.army.mil.

LNM: 47/18

OREGON – CAPE SEBASTIAN TO HUMBUG MOUNTAIN – ROGUE RIVER – Shoaling and limited Coast Guard response capability
The Coast Guard provides a seasonal Search and Rescue Detachment (SARDET) on the Rogue River in Gold Beach, Oregon. This unit exists to ensure the safety of the maritime community along the Southern Oregon Coast during periods of increased recreational vessel activity. The Rogue River has experienced significant shoaling this winter and mariners will experience shallower water depths than normal and shallower than charted. The federal channel will not be dredged until July 2019. USCG Station Chetco River will site a response capable asset beginning 25 May 2019 and continue a presence as often as practicable with respect to maritime vessel traffic and available water depth. The Rogue SARDET will...
Oregon – Cape Sebastian to Humboldt Mountain – Rogue River – Shoaling and limited Coast Guard response capability. Have limited maritime response capability until the dredging is completed. Sector North Bend Command Center will transmit scheduled broadcast notices to mariners informing the boating public in the immediate area of the Rogue River of a limited Coast Guard response capability.

LNM: 22/19

Oregon – Yaquina Head to Columbia River and Offshore – Offshore Oceanographic Operations

The University of Washington and the R/V Atlantis (Call Sign KAQP) will be conducting surface to floor oceanographic operations using a ROV from 02 Jun 2019 to 09 Jul 2019, 24 hours a day. Operations will occur in the approximate positions listed below:

- 03 Jun through 08 Jun: 45-49-49.752N 129-45-11.850W
- 12 Jun through 13 Jun: 44-22-09.594N 124-57-14.724W
- 13 Jun through 15 Jun: 44-31-44.280N 125-23-22.908W
- 16 Jun through 18 Jun: 45-49-49.752N 129-45-11.850W
- 01 Jul through 02 Jul: 44-22-09.594N 124-57-14.724W
- 02 Jul through 03 Jul: 44-31-44.280N 125-23-22.908W
- 04 Jul through 04 Jul: 45-49-49.752N 129-45-11.850W

During deployment operations, the research vessel will be restricted in ability to maneuver and maritime traffic is requested to remain at least 2NM away from the research vessel during operations and exercise caution when transiting the area. The R/V Atlantis will monitor VHF-FM channels 13 & 16. To submit comments or for additional information contact Brian Ittig at (206) 616-6792 or email bittig@uw.edu

Charts: 18520 18580

LNM: 19/19

Oregon – Washington – Astoria Canyon – Marine Earthquake Hazard Research

The University of Washington and U.S. Geological Survey will be conducting marine earthquake hazard research in the head of Astoria Canyon from 05 May 2019 until 01 Sep 2019. A large seafloor instrument package will be deployed at position coordinates 46-16-21.0N, 124-19-58.2W during this time with a hazard radius of 500 yards. Mariners are requested to keep trawling gear and towed equipment 75 feet above the seafloor if transiting the area. For additional information, contact Dr. Andrea Ogston at (206) 543-0768.

Charts: 18500 18520

LNM: 17/19

Columbia River – Pacific Ocean to Harrington Point - Mouth of the Columbia River Jetty System Major Rehabilitation Project (Revised from LNM 13/18)

Scheduled repairs of the North Jetty have commenced and will continue through 2020. New seasonal work on the jetty began on 01 April 2019 via land access, with no barges or vessels in the water. Work will initiate at the root of the jetty nearest Waikiki Beach, and continue outward to the head of the jetty. Equipment will be running during daylight hours only, and is scheduled to continue until approximately October for this season. For additional information on this project contact Sherri Brenner at (503) 550-6743 and email Sheri@jemcamis.com or the Project Superintendent Aaron Anderson at (503) 791-2161 and email AAnderson@jemcamis.com.

The 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. Repairs of the South jetty are scheduled to be conducted from 2020 through 2023. More information may be found at the USACE Portland District web site: http://www.nwp.usace.army.mil/jetties/

Chart 18521

LNM: 11/19

Oregon – Portland of Portland – Willamette River – Regulated Area for the Big Float

The Big Float Regulated Area will be in effect from 1100 to 1900 on 13 Jul 2019. The regulated area will include all navigable waters of the Willamette River in the vicinity of Tom McCall Park, Portland, OR, between the Hawthorne Highway Bridge (LLNR 14955.6) and I-5 Marquam Highway Bridge (LLNR 14959.5). Non-participant persons and vessels may request authorization to enter, transit through, anchor in, or remain within the regulated area by contacting the Captain of the Port Sector Columbia River or a designated representative via VHF radio on VHF-FM Channel 16. If authorization is granted by the Captain of the Port Sector Columbia River or a designated representative, all persons and vessels receiving such authorization must comply with the instructions of the Captain of the Port Sector Columbia River or a designated representative.

Chart 18526

Columbia River - Pasco to Richland - Lake Wallula - Regulated Area for the Kennewick Hydroplane Races

The Kennewick Hydroplane Races Regulated Area will be in effect from 0600 to 1800 on 26 – 28 Jul 2019. The Regulated area includes all navigable waters within the Columbia River in the vicinity of Columbia Park, commencing at the US-395 12 Blue Highway Bridge (LLNR 13057) and continuing up river approximately 2 NM and terminating at the northern end of Wade Island. Non-participant persons and vessels may request authorization to enter, transit through, anchor in, or remain within the regulated area by contacting the Captain of the Port Sector Columbia River or a designated representative on VHF-FM Channel 16. If authorization is granted by the Captain of the Port Sector Columbia River or a designated representative, all persons and vessels receiving such authorization must comply with the instructions of the Captain of the Port Sector Columbia River or a designated representative.

Chart 18543

LNM: 18/19

Washington Coast – Columbia River to the Strait of Juan de Fuca – Deployment of sub-surface acoustic recorder moorings

NOAA Northwest Fisheries Science Center (NMFS) will be deploying subsurface acoustic recorder moorings along the Washington Coast on 15 Oct
WASHINGTON COAST – COLUMBIA RIVER TO THE STRAIT OF JUAN DE FUCA – Deployment of sub-surface acoustic recorder moorings

18. The moorings will have a subsurface float and cabling up to 125 meters from the ocean floor but may be as little as 20 meters below the surface in some locations. The moorings are expected to remain on site through 01 Oct 19. The moorings are located at:

<table>
<thead>
<tr>
<th>Location Area Name</th>
<th>Latitude - Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbia River North</td>
<td>46-19-37N 124-11-54W</td>
</tr>
<tr>
<td>Westport</td>
<td>46-57-51N 124-18-09W</td>
</tr>
<tr>
<td>LaPush</td>
<td>47-52-50N 124-40-53W</td>
</tr>
<tr>
<td>Cape Flattery Offshore</td>
<td>48-10-33N 125-37-08W</td>
</tr>
<tr>
<td>Western Strait of Juan de Fuca</td>
<td>48-29-30N 124-47-00W</td>
</tr>
</tbody>
</table>

Mariners should avoid trailing any gear or equipment to prevent entanglement when transiting in the vicinity. For additional information contact Brad Hanson at (206) 860-3220 or email Brad.Hanson@wsdot.wa.gov.

Charts: 18480 18500

WASHINGTON – OLYMPIC COAST NATIONAL MARINE SANCTUARY - Temporary surface buoy deployment

NOAA will be deploying ten oceanographic research moorings in the Olympic Coast National Marine Sanctuary on or about 20 May 2019. The R/V Tatoosh will conduct the deployments and will be monitoring VHF-FM channel 16. Each mooring is marked with a bright orange surface float with a bright yellow flag on a pole and a radar reflector. The floats are unlighted. The moorings will be in place until approximately 04 Oct 2019.

Positions of the moorings and depths of the sensors are as follows:

<table>
<thead>
<tr>
<th>Location Area Name</th>
<th>Longitude</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA015</td>
<td>48-09-58.680 N 124-45-24.600 W</td>
<td>20 meters</td>
</tr>
<tr>
<td>CA042</td>
<td>48-09-57.660 N 124-49-24.120 W</td>
<td>125 meters</td>
</tr>
<tr>
<td>TH015</td>
<td>47-52-34.020 N 124-37-10.080 W</td>
<td>400 meters</td>
</tr>
<tr>
<td>TH042</td>
<td>47-52-34.140 N 124-44-00.300 W</td>
<td>125 meters</td>
</tr>
<tr>
<td>KL015</td>
<td>47-36-03.000 N 124-25-42.240 W</td>
<td>20 meters</td>
</tr>
<tr>
<td>KL027</td>
<td>47-35-40.440 N 124-29-49.440 W</td>
<td>125 meters</td>
</tr>
<tr>
<td>CE015</td>
<td>47-21-24.420 N 124-20-53.280 W</td>
<td>125 meters</td>
</tr>
<tr>
<td>CE042</td>
<td>47-21-11.280 N 124-29-19.440 W</td>
<td>125 meters</td>
</tr>
</tbody>
</table>

For more information contact LTJG Alisha Friel at (360) 406-2077 or email voc.ocnms@noaa.gov

Charts: 18480 18500

APPROACHES TO STRAIT OF JUAN DE FUCA – DESTRUCTION ISLAND TO AMPHITRITE POINT - Seafloor Science Equipment Deployed

On 08 Mar 2019 the Naval Postgraduate School Department of Oceanography deployed three pieces of scientific equipment on the seafloor near the approach to Strait of Juan de Fuca in the following positions:

<table>
<thead>
<tr>
<th>Location Area Name</th>
<th>Latitude - Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>OC01:</td>
<td>48-23-37.680N, 124-39-14.400W (just west of Neah Bay)</td>
</tr>
<tr>
<td>OC02:</td>
<td>48-29-25.320N, 125-00-13.680W (near buoy J)</td>
</tr>
<tr>
<td>OC04:</td>
<td>48-02-15.960N, 124-43-02.420W (8.5 NM north of Quillayute River)</td>
</tr>
</tbody>
</table>

Each piece of equipment extends 20 foot above the seafloor. All of the equipment is scheduled to be removed during the month of September 2019. For more information, contact John Joseph at (831) 656-7994 or jejoseph@nps.edu.

Charts: 18460 18480 18485

CANADA – STRAIT OF GEORGIA AND STRAIT OF JUAN DE FUCA – Vessel restrictions in Canadian waters

The Government of Canada has issued an Interim Order for the Protection of Killer Whales in the Waters of Southern British Columbia. The Order is in effect from 01 Jun 2019 until 31 Oct 2019 and implements several measures to protect whales from vessel disturbance, including specific geographic restricted areas, and proximity and speed restrictions when in the vicinity of whales. U.S. mariners who operate in Canadian waters should become familiar with the Order. Detailed information can be found at the following Transport Canada website: http://www.tc.gc.ca/eng/mediaroom/interim-order-protection-killer-whales-waters-southern-british-columbia.html

Charts: 18400 18421 18460

WASHINGTON – SEATTLE TO BREMERTON – ELLIOTT BAY – Construction at Piers 62 and 63

Pacific Pile and Marine, LP is conducting pier demolition and construction operations at Piers 62 and 63 in Elliott Bay, WA from 15 Jan 18 through January of 2020. The hours of operations will be 0700 to 1700, Monday through Friday though some work may be continued through the weekends. The construction and crane barge Web and various other barges will be onscene at all times, lighted at night, and will monitor VHF-FM channels 13, 16 & 69. Construction equipment may be moored in the vicinity of Pier 62 and may restrict sections of the waterway. For additional information, contact Karl Benjamin at (206) 331-3873 or at email Karlb@pacificpile.com.

Chart 18450

WASHINGTON – SEATTLE TO BREMERTON – ELLIOTT BAY - Colman Dock construction

Washington State Ferries is conducting demolition and construction operations at the Colman Docks, scheduled to be completed in the summer of 2022. Operations will be conducted from 0700 to 1700, Monday through Friday. Mariners should be aware of marine construction equipment moored around the Colman Dock and regular tows up and down the Duwamish River in support of the operation. Equipment may obstruct small sections of the waterway adjacent to Colman Dock. Water quality monitoring will be taking place during construction operations. Please direct any inquiries to WSF Communications at (206) 402-8070 or email wsfcoms@wsdot.wa.gov.

Chart 18450

WASHINGTON – SEATTLE TO BREMERTON – ELLIOTT BAY – Construction under Terminal 46

Chart 18450

LNM: 42/18

LNM: 18/19

LNM: 14/19

LNM: 23/19

LNM: 02/18

LNM: 27/17
WASHINGTON – SEATTLE TO BREMERTON – ELLIOTT BAY – Construction under Terminal 46
Stellar J and Bergerson Construction is conducting repair work operations under Terminal 46 in Elliott Bay until approximately 30 Jan 20. Operations will be conducted during daylight hours to coincide with tidal changes, Monday through Friday. There will be up to five work skiffs, two working floats as well as a scaffolding system under the dock. Work parties will answer hails as Stellar J or Bergerson Construction on VHF-FM channel 17. All work will be conducted inside the dock line, and it is requested that all vessels transiting the vicinity operate with minimum wake. For additional information contact Mike Klassen of Stellar J Corporation at (360) 518-2544 or email mikeklassen@stellarj.com.

Chart 18449
LNM: 23/18

WASHINGTON – PUGET SOUND – APPLE COVE TO KEYPORT – Submersible Vehicle testing
The Naval Undersea Warfare Center (NUWC) at Keyport, WA will be conducting operations in the vicinity of NUWC between the Brownsville Marina and Keyport through 20 Dec 19. Operations will be conducted Monday through Friday during daylight hours. Operations will involve semi-submersible and submersible vehicles escorted by a small naval craft with a flashing red light. The small craft will monitor VHF-FM channels 12 and 16. The call sign for the small craft will be “Keyport Range Control”. All craft transiting the area are requested to exercise caution and maintain a sharp lookout for possible semi-submerged vehicles while the range is in operation. Questions can be directed to Keyport Range Control on VHF-FM channels 12 and 16 or by contacting the Pacific Northwest Range Management and Ops Division, Range Control Branch, at (360) 396-2313.

Chart 18446
LNM: 06/19

WASHINGTON – PUGET SOUND – APPLE COVE TO POINT KEYPORT – Temporary lighted buoy
NOAA deployed a temporary research lighted buoy on 26 Feb 2019 southwest of Spring Beach at approximate position 47-43-20.300N, 122-24-03.800W. The buoy is white and grey, octagonal shaped and marked with a flashing yellow four seconds (FL Y 4s) light. This buoy is scheduled to be removed prior to 27 Sep 2019. For more information contact Nicholas Delich at (206) 552-6065 or email nicholas.delich@noaa.gov.

Chart 18446
LNM: 09/19

WASHINGTON – PUGET SOUND – APPROACHES TO EVERETT - Port of Everett’s South Terminal Wharf Construction
Advanced American Construction (AAC) is conducting repair work operations under South Terminal Wharf at the Port of Everett in Port Gardner Bay until approximately January 2020. Operations will be conducted during day and nighttime hours to coincide with tidal changes, Monday through Saturday. There will be up to two work skiffs, several working floats as well as a scaffolding system under the wharf. Workers parties will answer hails as AAC on VHF-FM channels 63 and 64. All work will be conducted inside the wharf line. It is requested that vessels transiting the vicinity operate with minimum wake. For more information, contact Steve Hager at (425) 388-0633 or email steveh@portofeverett.com.

Charts: 18443 18444
LNM: 51/18

WASHINGTON – PUGET SOUND – EVERETT HARBOR – SNOHOMISH RIVER – Shoaling (Revised from LNM 18/19)
Significant shoaling has been reported in several locations in the Snohomish River both in and outside the federally maintained navigation channel causing actual depths to be less than advertised. Recently, a tug grounded inside the channel in approximate position 48-00-28.86N, 122-13-29.52W. Mariners are advised to use extreme caution when transiting the river. The next planned dredging of the channel is in October 2019. The latest survey data from USACE is from Jan 2019 and was included as enclosure (4) of LNM 18/19. Additionally, a copy of the survey can be found on our website at can be found here https://www.pacificarea.uscg.mil/Our-Organization/District-13/District-Staff/-dpw/-notices/

Chart 18444
LNM: 19/19

WASHINGTON – STRAIT OF JUAN DE FUCA TO STRAIT OF GEORGIA – SAN JUAN CHANNEL – Submarine cable operations
(Revised from 30/17)
Harbor Offshore Inc. is installing and recovering submarine cables in the San Juan Channel between Pear Point on San Juan Island and Fisherman’s Bay on Lopez Island, within the charted cable areas. Operations are expected to continue through 13 Aug 2019. The hours of operations are 24 hours a day, 7 days a week. The Cable Lay Barge HOI-1, the tugs Westrac, Flyer and Reliable and the work boat Bobbie T may be contacted on VHF-FM channels 13, 16 and 68. An anchor system will be placed in approximate position 48-31-02.58N 122-58-46.73W off of Pear Point. Mariners are requested to contact one of the vessels listed above before transiting in the vicinity. For additional information contact Cliff Center at (360) 949-7133 or Lester Garrett at (206) 391-4077.

Chart 18434
LNM: 34/17

SECTION VIII - LIGHT LIST CORRECTIONS
An Asterisk *, indicates the column in which a correction has been made to new information

<table>
<thead>
<tr>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>957</td>
<td>Yaquina Bay Approach Lighted Whistle Buoy Y</td>
<td>44-35-51.761N</td>
<td>Mo (A) W</td>
<td>5</td>
<td>Red and white stripes.</td>
<td>27/19</td>
<td></td>
</tr>
<tr>
<td>645</td>
<td></td>
<td>124-06-46.811W</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>10635</td>
<td>OAK POINT LIGHT 81</td>
<td>46-11-11.938N</td>
<td>FIG 4s</td>
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<td>123-10-55.894W</td>
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</table>

*
ENCLOSURES

Enclosure 1
OREGON - WASHINGTON - IDAHO - MONTANA - Summary of Bridge Lighting Discrepancies and Corrections

Enclosure 2
OREGON - WASHINGTON - COLUMBIA RIVER - Summary of Dredging Operations

Enclosure 3
OREGON - WASHINGTON - COLUMBIA RIVER - Summary of Marine Events

Enclosure 4
CALIFORNIA - OREGON - WASHINGTON - NOAA and Saildrone joint ocean survey operations

Enclosure 5
OREGON - WILLAMETTE RIVER - PORT OF PORTLAND - Poet's Beach

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 Brendan J. Harris
Chief, Waterways Management Branch
Thirteenth Coast Guard District
## BRIDGE DISCREPANCIES

<table>
<thead>
<tr>
<th>Waterway</th>
<th>Light List</th>
<th>Bridge Name</th>
<th>Location</th>
<th>Status</th>
<th>Date Reported</th>
<th>BNM</th>
</tr>
</thead>
<tbody>
<tr>
<td>OREGON COAST</td>
<td>8990</td>
<td>Coos Bay Railroad Bridge</td>
<td>North Bend, OR</td>
<td>Main Lights Extinguished, Temporary Red lights installed</td>
<td>4/30/2018</td>
<td>0369-18</td>
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<tr>
<td></td>
<td>9558</td>
<td>Florence Highway 101 Bridge</td>
<td>Florence, OR</td>
<td>Clearance Gauge missing</td>
<td>6/25/2019</td>
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<td></td>
<td>9627</td>
<td>Yaquina Bay Highway 101 Bridge</td>
<td>Newport, OR</td>
<td>Southbound Buoy Fender LT extinguished</td>
<td>6/17/2019</td>
<td>0433-19</td>
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<td>9807</td>
<td>Kernville Highway 101 Bridge</td>
<td>Lincoln City, OR</td>
<td>Center, Downstream light is extinguished</td>
<td>6/3/2019</td>
<td>0398-19</td>
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## BRIDGE CORRECTIONS

<table>
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<tr>
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<th>Bridge Name</th>
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<th>BNM</th>
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<tbody>
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<tr>
<td>COLUMBIA RIVER</td>
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<td>SNAKE RIVER</td>
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<td>WASHINGTON COAST</td>
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<td>PUGET SOUND</td>
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<td>IDAHO</td>
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<td>None</td>
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<td>None</td>
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</table>
Dredging operations are scheduled or in progress at the following locations:

<table>
<thead>
<tr>
<th>Start Date</th>
<th>End Date</th>
<th>Times</th>
<th>Location</th>
<th>Dredge Vessel</th>
<th>Assist Vessel</th>
<th>Channels Monitored</th>
<th>Disposal Area</th>
<th>LNM</th>
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<tbody>
<tr>
<td>3-Jul-19</td>
<td>11-Jul-19</td>
<td>24 Hrs/7 Days</td>
<td>Chetco River; Entrance Bar; RM 0-15 to 0+15, full channel (2.5 days total, Wx dependent)</td>
<td>M/V YAQUINA</td>
<td>None</td>
<td>VHF-FM 13 &amp;16</td>
<td>ODMDS 27/19</td>
<td></td>
</tr>
<tr>
<td>8-Jul-19</td>
<td>25-Jul-19</td>
<td>Daylight Hours</td>
<td>Rogue River, Boat Basin Access Channel</td>
<td>M/V James T</td>
<td>None</td>
<td>VHF-FM 13 &amp;16</td>
<td>Onshore 26/19</td>
<td></td>
</tr>
<tr>
<td>9-Jul-19</td>
<td>17-Jul-19</td>
<td>24 Hrs/7 Days</td>
<td>Port Orford</td>
<td>M/V Heidi</td>
<td>M/V Renee</td>
<td>VHF-FM 72 &amp;16</td>
<td>Site 404-NS 27/19</td>
<td></td>
</tr>
<tr>
<td>3-Jul-19</td>
<td>11-Jul-19</td>
<td>24 Hrs/7 Days</td>
<td>Coquille River; Entrance Bar; 0-12 to 0+22, full channel (2.5 days total, Wx dependent)</td>
<td>M/V YAQUINA</td>
<td>None</td>
<td>VHF-FM 13 &amp;16</td>
<td>ODMDS 27/19</td>
<td></td>
</tr>
<tr>
<td>3-Jul-19</td>
<td>11-Jul-19</td>
<td>24 Hrs/7 Days</td>
<td>Coos Bay; Jarvis Ranges; 5+35 to 7+15 (FWB for Chetco and Coquille)</td>
<td>M/V YAQUINA</td>
<td>None</td>
<td>VHF-FM 13 &amp;16</td>
<td>Site F-NS 27/19</td>
<td></td>
</tr>
<tr>
<td>3-Jul-19</td>
<td>11-Jul-19</td>
<td>24 Hrs/7 Days</td>
<td>Coos Bay; Jarvis Ranges; 8+05 to 8+40 (FWB Chetco and Coquille)</td>
<td>M/V YAQUINA</td>
<td>None</td>
<td>VHF-FM 13 &amp;16</td>
<td>Site F-NS 27/19</td>
<td></td>
</tr>
<tr>
<td>3-Jul-19</td>
<td>11-Jul-19</td>
<td>24 Hrs/7 Days</td>
<td>Coos Bay; North Bend Turn; 9+05 to 10+00 (FWB)</td>
<td>M/V YAQUINA</td>
<td>None</td>
<td>VHF-FM 13 &amp;16</td>
<td>Site F-NS 27/19</td>
<td></td>
</tr>
<tr>
<td>3-Jul-19</td>
<td>11-Jul-19</td>
<td>24 Hrs/7 Days</td>
<td>Siuslaw River; Entrance Bar; 0-40 to 0+05, full channel (2.5 days total, Wx dependent)</td>
<td>M/V YAQUINA</td>
<td>None</td>
<td>VHF-FM 13 &amp;16</td>
<td>NSROS 27/19</td>
<td></td>
</tr>
<tr>
<td>3-Jul-19</td>
<td>11-Jul-19</td>
<td>24 Hrs/7 Days</td>
<td>Yaquina Bay; Entrance; 0-40 to 0+20 (FWB Siuslaw)</td>
<td>M/V YAQUINA</td>
<td>None</td>
<td>VHF-FM 13 &amp;16</td>
<td>YBOS (S) 27/19</td>
<td></td>
</tr>
<tr>
<td>28-Jun-19</td>
<td>28-Jul-19</td>
<td>24 Hrs/7 Days</td>
<td>Columbia River; Pillar Rock (RM 27+20 to 29+00)</td>
<td>M/V Oregon</td>
<td>M/V Clackamas, M/V Ivanhoff and M/V Williams</td>
<td>VHF-FM 13 &amp;16</td>
<td>TBD 25/19</td>
<td></td>
</tr>
<tr>
<td>8-Jul-19</td>
<td>10-Jul-19</td>
<td>0700-1700</td>
<td>Columbia River; Vancouver Turning Basin</td>
<td>M/V Sea Horse</td>
<td>M/V Marston, M/V Husky</td>
<td>VHF-FM 67,13 &amp;16</td>
<td>TBD 26/19</td>
<td></td>
</tr>
</tbody>
</table>

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

USACE dredges request mariners transit at their slowest safe speed to minimize wake when in the vicinity of a dredge and proceed with caution after passing arrangements have been made. Vessel(s) and/or equipment may encroach into the channel.
<table>
<thead>
<tr>
<th>EVENT DATE</th>
<th>TIME</th>
<th>EVENT NAME</th>
<th>EVENT LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-Jul-19</td>
<td>2200-2230</td>
<td>The Mill Casino Independence Day Fireworks</td>
<td>Coos Bay, OR</td>
</tr>
<tr>
<td>3-Jul-19</td>
<td>2200-2230</td>
<td>Waldport Fireworks</td>
<td>Waldport, OR</td>
</tr>
<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>Splash Festival Fireworks</td>
<td>Aberdeen, WA</td>
</tr>
<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>Astoria-Warrenton 4th of July Fireworks</td>
<td>Astoria, OR</td>
</tr>
<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>Bandon 4th of July Fireworks</td>
<td>Bandon, OR</td>
</tr>
<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>Cascade Locks 4th of July Fireworks</td>
<td>Cascade Locks, OR</td>
</tr>
<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>Clatskanie Heritage Days Fireworks</td>
<td>Clatskanie, OR</td>
</tr>
<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>Fireworks Over the Bay</td>
<td>Coos Bay, OR</td>
</tr>
<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>Florence Independence Day Celebration Fireworks</td>
<td>Florence, OR</td>
</tr>
<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>July 4th Party at the Port of Gold Beach Fireworks</td>
<td>Gold Beach, OR</td>
</tr>
<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>Brookings 4th of July Fireworks</td>
<td>Harbor, OR</td>
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<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>Huntington 4th of July Fireworks</td>
<td>Huntington, OR</td>
</tr>
<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>River of Fire Festival Fireworks</td>
<td>Kennewick, WA</td>
</tr>
<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>Lincoln City 4th of July Fireworks</td>
<td>Lincoln City, OR</td>
</tr>
<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>Newport 4th of July Fireworks</td>
<td>Newport, OR</td>
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<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>Port Orford 4th of July Jubilee Fireworks</td>
<td>Port Orford, OR</td>
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<td>2200-2230</td>
<td>Oaks Park 4th of July Fireworks</td>
<td>Portland, OR</td>
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<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>Waverly Country Club 4th of July Fireworks</td>
<td>Portland, OR</td>
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<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>Waterfront Blues Festival Fireworks</td>
<td>Portland, OR</td>
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<tr>
<td>4-Jul-19</td>
<td>2200-2300</td>
<td>City of St. Helen's Fireworks</td>
<td>St. Helen's, OR</td>
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<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>Fort Dalles Fourth Fireworks</td>
<td>The Dalles, OR</td>
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<td>4-Jul-19</td>
<td>2200-2230</td>
<td>Washougal 4th of July Fireworks</td>
<td>Washougal, WA</td>
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<tr>
<td>4-Jul-19</td>
<td>2200-2300</td>
<td>City of Westport 4th of July Fireworks</td>
<td>Westport, WA</td>
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<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>Winchester Bay 4th of July Fireworks</td>
<td>Winchester Bay, OR</td>
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<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>Yachats 4th of July Fireworks</td>
<td>Yachats, OR</td>
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<tr>
<td>6-Jul-19</td>
<td>2200-2230</td>
<td>Independence Day Fireworks at the Port</td>
<td>Ilwaco, WA</td>
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<tr>
<td>7-Jul-19</td>
<td>0600-1630</td>
<td>Portland Bridge Swim</td>
<td>Willamette River IVO Sellwood Bridge, Portland, OR</td>
</tr>
<tr>
<td>8-Jul-19</td>
<td>0600-1630</td>
<td>Portland Bridge Swim</td>
<td>Willamette River, Portland, OR</td>
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<td>8-Jul-19</td>
<td>1830-1930</td>
<td>Mayoral Swim</td>
<td>Willamette River, Portland, OR</td>
</tr>
<tr>
<td>13-Jul-19</td>
<td>2200-2230</td>
<td>Rainier Days Fireworks</td>
<td>Rainier, OR</td>
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<tr>
<td>13-Jul-19</td>
<td>0930-1600</td>
<td>Kiteboard 4 Cancer</td>
<td>Hood River, OR</td>
</tr>
<tr>
<td>13-Jul-19</td>
<td>1100-1600</td>
<td>Gorge Outrigger Race</td>
<td>Columbia River IVO Stevenson, WA to Bingen, WA</td>
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<td>13-Jul-19</td>
<td>1100-1900</td>
<td>The Big Float 9</td>
<td>Willamette River, Portland, OR</td>
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<td>Hood River, OR</td>
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<td>1100-1630</td>
<td>Gorge Downwind Champs</td>
<td>Columbia River, Home Valley, WA to Hood River, OR</td>
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<td>19-Jul-19</td>
<td>1100-1630</td>
<td>Lido 14 2019 National Championship</td>
<td>Willamette River, Portland, OR</td>
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<td>20-Jul-19</td>
<td>2200-2230</td>
<td>Cathlamet Bald Eagle Days Fireworks</td>
<td>Cathlamet, WA</td>
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<td>1100-1630</td>
<td>Gorge Downwind Champs</td>
<td>Columbia River, Home Valley, WA to Hood River, OR</td>
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<td>20-Jul-19</td>
<td>2200-2230</td>
<td>Toledo Summer Festival Fireworks</td>
<td>Toledo, OR</td>
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<td>20-Jul-19</td>
<td>1200-1700</td>
<td>Lido 14 2019 National Championship</td>
<td>Willamette River, Portland, OR</td>
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<td>21-Jul-19</td>
<td>1100-1630</td>
<td>Gorge Downwind Champs</td>
<td>Columbia River, Home Valley, WA to Hood River, OR</td>
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<td>21-Jul-19</td>
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<td>Lido 14 2019 National Championship</td>
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<tr>
<td>26-Jul-19</td>
<td>0600-1800</td>
<td>Tri-Cities Water Follies Columbia Cup</td>
<td>Columbia River IVO Pioneer Memorial Bridge in between Kennewick and Pasco, WA</td>
</tr>
<tr>
<td>27-Jul-19</td>
<td>0600-1800</td>
<td>Tri-Cities Water Follies Columbia Cup</td>
<td>Columbia River IVO Pioneer Memorial Bridge in between Kennewick and Pasco, WA</td>
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### MARINE EVENTS

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<th>EVENT LOCATION</th>
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<td>27-Jul-19</td>
<td>0500-1800</td>
<td>Columbia River Walleye Anglers Association Summer Walleye Classic</td>
<td>Boardman, OR</td>
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<td>27-Jul-19</td>
<td>2200-2230</td>
<td>Garibaldi Days Fireworks</td>
<td>Garibaldi, OR</td>
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<tr>
<td>28-Jul-19</td>
<td>0500-1800</td>
<td>Columbia River Walleye Anglers Association Summer Walleye Classic</td>
<td>Boardman, OR</td>
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<tr>
<td>28-Jul-19</td>
<td>0600-1800</td>
<td>Tri-Cities Water Follies Columbia Cup</td>
<td>Columbia River IVO Pioneer Memorial Bridge in between Kennewick and Pasco, WA</td>
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### SECTOR PUGET SOUND MARINE EVENTS

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<th>TIME</th>
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<th>EVENT LOCATION</th>
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<tbody>
<tr>
<td>3-Jul-19</td>
<td>1000-1600</td>
<td>Tacoma Freedom Fair Air Show</td>
<td>Commencement Bay</td>
</tr>
<tr>
<td>3-Jul-19</td>
<td>1700-2100</td>
<td>Wednesday Evening Series</td>
<td>Shilshole Bay and Central Puget Sound</td>
</tr>
<tr>
<td>3-Jul-19</td>
<td>2200-2300</td>
<td>Earth Friendly 4th of July Show (Rehearsal)</td>
<td>Eagle Harbor</td>
</tr>
<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>Friday Harbor Community Fireworks Display</td>
<td>Friday Harbor</td>
</tr>
<tr>
<td>4-Jul-19</td>
<td>2200-2245</td>
<td>Seattle Seafair 4th of July</td>
<td>Lake Union</td>
</tr>
<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>Tacoma Freedom Fair Fireworks</td>
<td>Commencement Bay</td>
</tr>
<tr>
<td>4-Jul-19</td>
<td>2200-2230</td>
<td>Three Tree Point Fireworks</td>
<td>Three Tree Point, Seahurst, WA</td>
</tr>
<tr>
<td>4-Jul-19</td>
<td>2200-2300</td>
<td>Earth Friendly 4th of July Show</td>
<td>Eagle Harbor</td>
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<tr>
<td>5-Jul-19</td>
<td>1000-1600</td>
<td>Tacoma Freedom Fair Air Show</td>
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<tr>
<td>7-Jul-19</td>
<td>1800-2100</td>
<td>Downtown Sailing Series</td>
<td>Commencement Bay</td>
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<tr>
<td>7-Jul-19</td>
<td>1800-2200</td>
<td>Duck Dodge</td>
<td>Lake Union</td>
</tr>
<tr>
<td>8-Jul-19</td>
<td>1000-1600</td>
<td>Three Tree Point Yacht Club Buoy Races</td>
<td>East Passage</td>
</tr>
<tr>
<td>8-Jul-19</td>
<td>1700-2100</td>
<td>Thursday Evening Series</td>
<td>Shilshole Bay and Central Puget Sound</td>
</tr>
<tr>
<td>10-Jul-19</td>
<td>1000-1600</td>
<td>Take Your Time Fridays</td>
<td>Shilshole Bay</td>
</tr>
<tr>
<td>10-Jul-19</td>
<td>1700-2000</td>
<td>Ballard Cup Series</td>
<td>Shilshole Bay</td>
</tr>
<tr>
<td>11-Jul-19</td>
<td>1800-2000</td>
<td>Downtown Sailing Series</td>
<td>Commencement Bay</td>
</tr>
<tr>
<td>11-Jul-19</td>
<td>1800-2100</td>
<td>Three Tree Point Yacht Club Buoy Races</td>
<td>East Passage</td>
</tr>
<tr>
<td>11-Jul-19</td>
<td>1700-2100</td>
<td>Thursday Evening Series</td>
<td>Shilshole Bay and Central Puget Sound</td>
</tr>
<tr>
<td>12-Jul-19</td>
<td>0500-2400</td>
<td>Bellingham Salmon Derby</td>
<td>Bellingham Bay to San Juans</td>
</tr>
<tr>
<td>12-Jul-19</td>
<td>1900-2100</td>
<td>Take Your Time Fridays</td>
<td>Shilshole Bay</td>
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<tr>
<td>13-Jul-19</td>
<td>0500-2400</td>
<td>Bellingham Salmon Derby</td>
<td>Bellingham Bay to San Juans</td>
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<tr>
<td>13-Jul-19</td>
<td>1100-1500</td>
<td>CYCT Three Hour Tour Series</td>
<td>Commencement Bay</td>
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<td>13-Jul-19</td>
<td>1100-1500</td>
<td>International Power Boat Assoc International Cruiser Race</td>
<td>Anacortes, Padilla Bay, Rosario Strait, Obstruction Island</td>
</tr>
<tr>
<td>14-Jul-19</td>
<td>0500-2400</td>
<td>Bellingham Salmon Derby</td>
<td>Bellingham Bay to San Juans</td>
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<tr>
<td>16-Jul-19</td>
<td>1800-2200</td>
<td>Duck Dodge</td>
<td>Lake Union</td>
</tr>
<tr>
<td>17-Jul-19</td>
<td>1830-2200</td>
<td>CYCT Windseekers Summer Series</td>
<td>Commencement Bay</td>
</tr>
<tr>
<td>17-Jul-19</td>
<td>1700-2100</td>
<td>Wednesday Evening Series</td>
<td>Shilshole Bay and Central Puget Sound</td>
</tr>
<tr>
<td>18-Jul-19</td>
<td>1800-2000</td>
<td>Downtown Sailing Series</td>
<td>Elliott Bay</td>
</tr>
<tr>
<td>18-Jul-19</td>
<td>1800-2100</td>
<td>Three Tree Point Yacht Club Buoy Races</td>
<td>East Passage</td>
</tr>
<tr>
<td>19-Jul-19</td>
<td>1700-2100</td>
<td>Thursday Evening Series</td>
<td>Shilshole Bay and Central Puget Sound</td>
</tr>
<tr>
<td>19-Jul-19</td>
<td>1900-2100</td>
<td>Take Your Time Fridays</td>
<td>Shilshole Bay</td>
</tr>
<tr>
<td>21-Jul-19</td>
<td>0700-1000</td>
<td>Swim Defiance</td>
<td>Point Defiance</td>
</tr>
<tr>
<td>22-Jul-19</td>
<td>1700-2000</td>
<td>Ballard Cup Series</td>
<td>Shilshole Bay</td>
</tr>
<tr>
<td>23-Jul-19</td>
<td>1800-2200</td>
<td>Duck Dodge</td>
<td>Lake Union</td>
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<tr>
<td>24-Jul-19</td>
<td>1830-2200</td>
<td>CYCT Windseekers Summer Series</td>
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<tr>
<td>24-Jul-19</td>
<td>1700-2100</td>
<td>Wednesday Evening Series</td>
<td>Shilshole Bay and Central Puget Sound</td>
</tr>
<tr>
<td>Date</td>
<td>Time</td>
<td>Event</td>
<td>Location</td>
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<tr>
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<tr>
<td>25-Jul-19</td>
<td>1800-2000</td>
<td>Downtown Sailing Series</td>
<td>Elliott Bay</td>
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<td>25-Jul-19</td>
<td>1800-2100</td>
<td>Three Tree Point Yacht Club Buoy Races</td>
<td>East Passage</td>
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<tr>
<td>26-Jul-19</td>
<td>1900-2100</td>
<td>Take Your Time Fridays</td>
<td>Shilshole Bay</td>
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<tr>
<td>27-Jul-19</td>
<td>0800-1700</td>
<td>Da Grind Outrigger Canoe Race</td>
<td>Puget Sound</td>
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<tr>
<td>29-Jul-19</td>
<td>1700-2000</td>
<td>Ballard Cup Series</td>
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<td>30-Jul-19</td>
<td>1800-2200</td>
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<tr>
<td>31-Jul-19</td>
<td>1830-2200</td>
<td>CYCT Windseekers Late Summer Series</td>
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<tr>
<td>31-Jul-19</td>
<td>1700-2100</td>
<td>Wednesday Evening Series</td>
<td>Shilshole Bay and Central Puget Sound</td>
</tr>
</tbody>
</table>
RESEARCH EQUIPMENT IN WATER
CALIFORNIA CURRENT ALONG U.S. WEST COAST
June – August 2019

SAILDRONE, INC. will operate seven Unmanned Surface Vehicles called Saildrones for oceanographic and fisheries research, in the waters from Neah Bay, WA, to Point Conception, CA, from June to August 2019. They will be launched from Alameda, CA, and Neah Bay, WA.

For more about this year’s fisheries survey, please visit
For ongoing mission details, please follow the NOAA Northwest Fisheries Science Center 2019 Summer Survey blog

VESSELS ARE REQUESTED TO TRANSIT THE AREA WITH CAUTION, AND REMAIN GREATER THAN 500 METERS AWAY FROM THE RESEARCH EQUIPMENT.

Saildrones are wind powered Unmanned Surface Vehicles that carry important oceanographic and fisheries acoustics research instrumentation and are controlled from shore through satellite communications.

- Color: Orange
- Light: white all-round light
- Radar Reflector: yes
- Distinguishing Marks/Notation: “Saildrone”

- Length: 23 ft & Width: 2 ft
- Height: 16 ft above water line
- Draft: 6 ft
- Average speed: 3 knots

CONTACT: SAILDRONE MISSION CONTROL
Phone: (510) 722-6070 and email: missioncontrol@saildrone.com
Saildrone, 1050 West Tower Avenue, Alameda, CA, 94501, www.saildrone.com
1. EXISTING SEATING
2. SWIM LINE W/ FLOATS
3. SWIM AREA MARKER BUOY
4. CONNECTION AT PIER
5. EXISTING BIKE RACK
6. NEW TRASH CAN