

## Information for Mariners – February 2021 NEPTUNE Observatory: Cascadia Basin (Formerly ODP 1027)

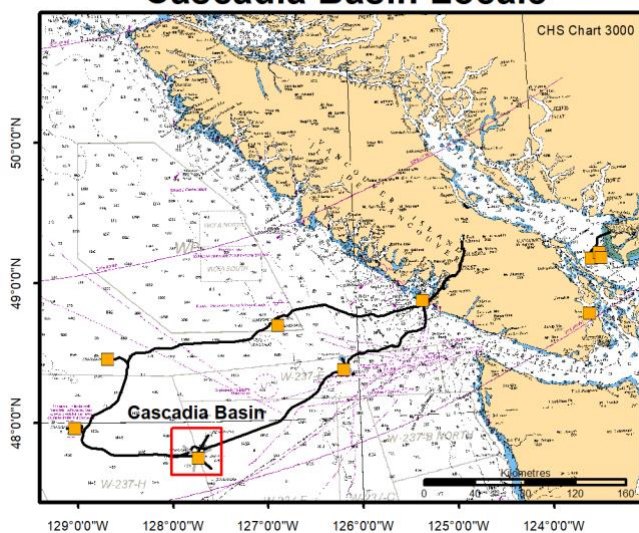
**Project:** The North-East Pacific Undersea Networked Experiments (NEPTUNE) is an oceanographic project managed by Ocean Networks Canada (ONC), an initiative of the University of Victoria. It consists of a cabled observatory off the west coast of Vancouver Island, beginning in Port Alberni and extending 300 km offshore along an 813 km loop. From a shore landing, an armoured marine cable extends along the ocean bottom to large observatory “Nodes”, into which oceanographic instrument systems connect. High voltage power is supplied down the cable, and Ethernet communications along fibre optics bring data and images back to the University in real time. Project status, system information, waypoint downloads and data are available from the Ocean Networks Canada web site: [www.oceannetworks.ca](http://www.oceannetworks.ca)

**What:** High voltage marine fibre optic cables and observatory systems (see web site for system details).

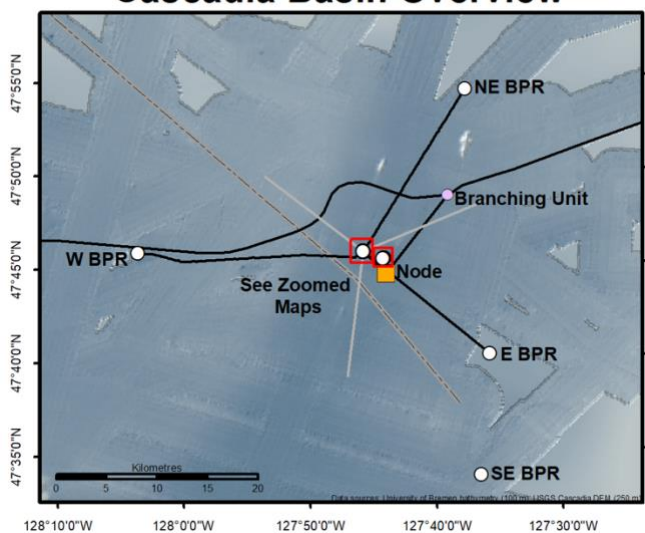
**When:** Latest system and instrument deployments at the Cascadia Basin site: **11 February 2021**

**Where:** **Cascadia Basin, West Coast Vancouver Island.** See [chart # 3000](#) for cable route and obstructions.

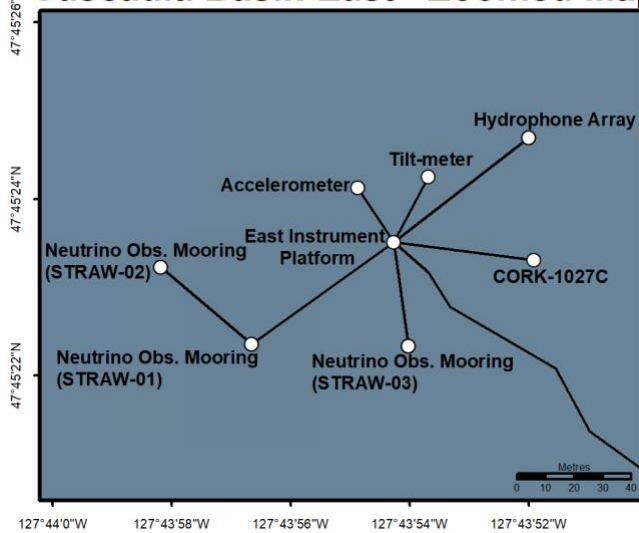
**Cascadia Basin Locale**



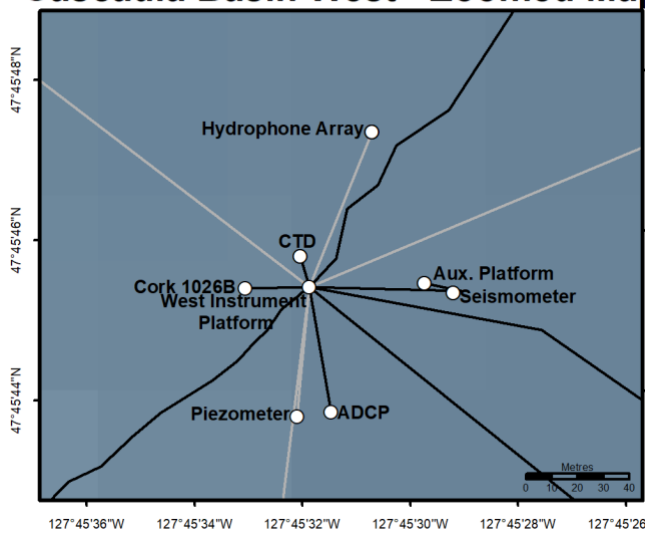
**Cascadia Basin Overview**



**Cascadia Basin East - Zoomed Map**



**Cascadia Basin West - Zoomed Map**



*These figures have been produced by the University of Victoria based on Canadian Hydrographic Service (CHS) charts, pursuant to CHS Direct User License No. 2019-1004-1260-UV. The incorporation of data sourced from CHS in these products shall not be construed as constituting an endorsement by CHS of these products. These products do not meet the requirements of the Charts and Nautical Publications Regulations, 1995 under the Canada Shipping Act, 2001. Official charts and publications; corrected and up-to-date, must be used to meet the requirements of those regulations.*

Name	Latitude	Longitude	Depth (m)	Description
CascadiaBasin_Accelerometer_2018-07	47.75668	-127.73193	2661	0.5 m Cylindrical frame with glass sphere buried in a green caisson
CascadiaBasin_ADCP_2020-09	47.76217	-127.75878	2659	1 m spherical grey titanium platform
CascadiaBasin_BBS_NC27_2020-09_Temporary	47.76257	-127.75814	2656	1 m spherical grey titanium platform
CascadiaBasin_BranchingUnit_2007-08	47.81175	-127.64583	2606	3 m cylindrical steel can
CascadiaBasin_CORK_IP_2018-06	47.75651	-127.73177	2658	Large (3 m) grey steel frame
CascadiaBasin_CORK-1026B_2009-09	47.76260	-127.75921	2660.5	6.5 m Cylindrical steel frame with circular platform (similar to a well-head)
CascadiaBasin_CORK-1027C_HydrophoneArray_2020-09_2	47.75683	-127.73113	2655	Yellow metal pole rising 3 m from seafloor
CascadiaBasin_CTD_2020-09	47.76271	-127.75893	2657	White and green rectangular 1.7 m by 1.3 m steel platform
CascadiaBasin_HydrophoneArray_2017-06	47.76314	-127.75855	2670	Yellow metal pole rising 3 m from seafloor
CascadiaBasin_IP_2009-09	47.76260	-127.75888	2660.5	Large (3 m) grey steel frame
CascadiaBasin_Piezometer_2011-07	47.76215	-127.75896	2660	1 m cylindrical steel platform
CascadiaBasin_STRAW-01-002mab_2018-06	47.75620	-127.73244	2654	Fixed position mooring extending 147 m into the water column and topped with an orange buoy
CascadiaBasin_STRAW-01-030mab_2018-06	47.75620	-127.73244	2626	Fixed position mooring extending 147 m into the water column and topped with an orange buoy
CascadiaBasin_STRAW-01-050mab_2018-06	47.75620	-127.73244	2606	Fixed position mooring extending 147 m into the water column and topped with an orange buoy
CascadiaBasin_STRAW-01-070mab_2018-06	47.75620	-127.73244	2586	Fixed position mooring extending 147 m into the water column and topped with an orange buoy
CascadiaBasin_STRAW-01-110mab_2018-06	47.75620	-127.73244	2546	Fixed position mooring extending 147 m into the water column and topped with an orange buoy
CascadiaBasin_STRAW-02-002mab_2018-06	47.75645	-127.73286	2659	Fixed position mooring extending 147 m into the water column and topped with an orange buoy
CascadiaBasin_STRAW-02-030mab_2018-06	47.75645	-127.73286	2631	Fixed position mooring extending 147 m into the water column and topped with an orange buoy
CascadiaBasin_STRAW-02-050mab_2018-06	47.75645	-127.73286	2611	Fixed position mooring extending 147 m into the water column and topped with an orange buoy
CascadiaBasin_STRAW-02-070mab_2018-06	47.75645	-127.73286	2591	Fixed position mooring extending 147 m into the water column and topped with an orange buoy
CascadiaBasin_STRAW-02-110mab_2018-06	47.75645	-127.73286	2551	Fixed position mooring extending 147 m into the water column and topped with an orange buoy
CascadiaBasin_STRAW-03-120mab_2020-09	47.75619	-127.73171	2536	Fixed position mooring extending 147 m into the water column and topped with an orange buoy
CascadiaBasin_STRAW-03-144mab_2020-09	47.75619	-127.73171	2513	Fixed position mooring extending 147 m into the water column and topped with an orange buoy

CascadiaBasin_STRAW-03-168mab_2020-09	47.75619	-127.73171	2489	Fixed position mooring extending 147 m into the water column and topped with an orange buoy
CascadiaBasin_STRAW-03-240mab_2020-09	47.75619	-127.73171	2416	Fixed position mooring extending 147 m into the water column and topped with an orange buoy
CascadiaBasin_STRAW-03-264mab_2020-09	47.75619	-127.73171	2392.8	Fixed position mooring extending 147 m into the water column and topped with an orange buoy
CascadiaBasin_STRAW-03-288mab_2020-09	47.75619	-127.73171	2368.8	Fixed position mooring extending 147 m into the water column and topped with an orange buoy
CascadiaBasin_STRAW-03-312mab_2020-09	47.75619	-127.73171	2344	Fixed position mooring extending 147 m into the water column and topped with an orange buoy
CascadiaBasin_STRAW-03-384mab_2020-09	47.75619	-127.73171	2272	Fixed position mooring extending 147 m into the water column and topped with an orange buoy
CascadiaBasin_STRAW-03-408mab_2020-09	47.75619	-127.73171	2249	Fixed position mooring extending 147 m into the water column and topped with an orange buoy
CascadiaBasin_STRAW-03-432mab_2020-09	47.75619	-127.73171	2225	Fixed position mooring extending 147 m into the water column and topped with an orange buoy
CascadiaBasin_STRAW-b_MiniJB_2020-09	47.75619	-127.73171	2656	Fixed position mooring extending 147 m into the water column and topped with an orange buoy
CascadiaBasin_TiltMeter_2018-06	47.75672	-127.73160	2656	1 m cylindrical titanium can, with white cap
NE-20km_BPR_2016-06	47.90624	-127.62053	2640	1 m triangular steel platform
OBS_AuxiliaryPlatform_2014-05	47.76261	-127.75829	2654	1.5 m grey steel frame
SE-20km_AutonomousBPR_2015-09	47.56241	-127.60780	2633	1 m triangular steel platform
SE-20km_BPR_2020-09	47.66979	-127.59336	2639	1 m triangular steel platform
W-20km_BPR_2015-09	47.76403	-128.05766	2639	1 m triangular steel platform

Full cable routes and waypoints are available for use with Electronic Navigation Systems from the ONC website:

<http://www.oceannetworks.ca/installations/notice-mariners>

**Contacts:** If you have any concerns, or would like further information, please contact either: Ian Kulin, Ocean Networks Canada's Director of Marine Operations at [ikulin@uvic.ca](mailto:ikulin@uvic.ca) or 250 721-6279 or ONC GIS Specialists at [GIS@oceannetworks.ca](mailto:GIS@oceannetworks.ca).