

Information for Mariners – August 2018 NEPTUNE Observatory: Cascadia Basin (Formerly ODP 1027)

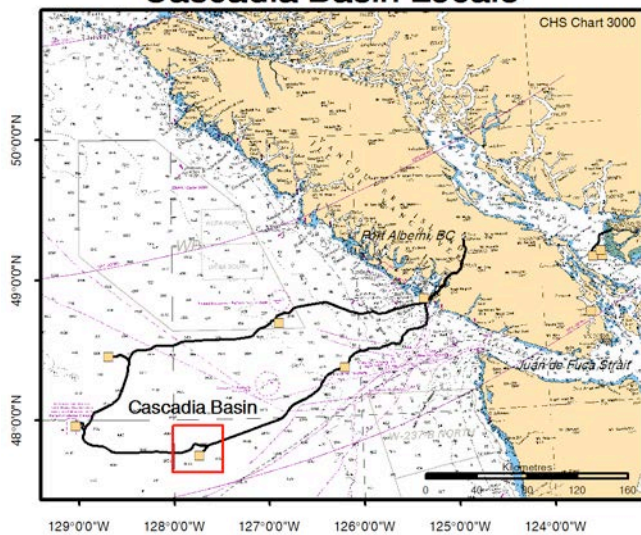
Project: The North-East Pacific Undersea Networked Experiments (NEPTUNE) is an oceanographic project managed by Ocean Networks Canada (ONC), an initiative of the University of Victoria. It consists of a cabled observatory off the west coast of Vancouver Island, beginning in Port Alberni and extending 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

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

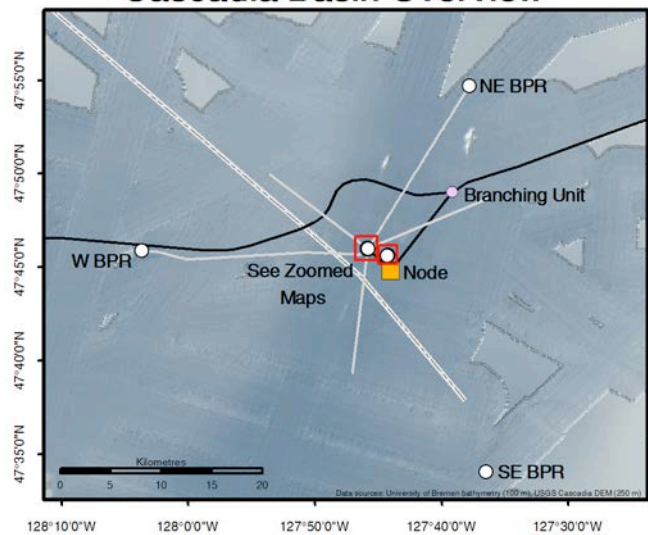
When: Latest system and instrument deployments at the Cascadia Basin site: **2 August 2018**

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

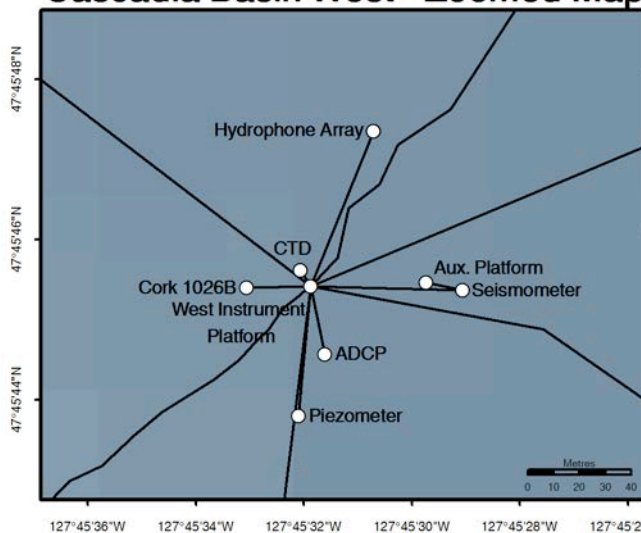
Cascadia Basin Locale



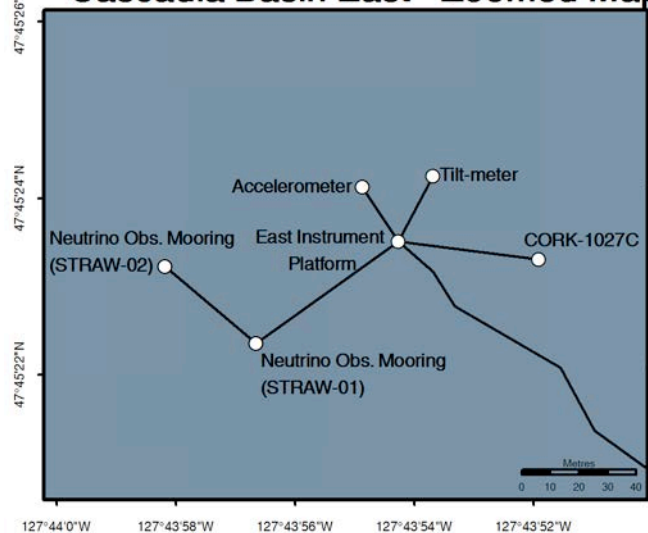
Cascadia Basin Overview



Cascadia Basin West - Zoomed Map



Cascadia Basin East - Zoomed Map



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Name	Latitude	Longitude	Depth (m)	Notes	Description
East Accelerometer	47° 45.4011' N	127° 43.9159' W	2661		0.5 m Cylindrical frame with glass sphere buried in a green caisson
Current Profiler (ADCP)	47° 45.7419' N	127° 45.5290' W	2663		1 m green cubic fiberglass platform
Anode	47° 44.5358' N	127° 43.7545' W	2655		1 m cylindrical steel can
Broadband Seismometer	47° 45.7548' N	127° 45.4861' W	2656		1 m spherical grey titanium platform
Branching Unit	47° 48.7048' N	127° 38.7499' W	2606		3 m cylindrical steel can
ODP CORK-1026B	47° 45.7560' N	127° 45.5527' W	2661		6.5 m Cylindrical steel frame with circular platform (similar to a well-head)
ODP CORK-1027C	47° 45.3870' N	127° 43.8670' W	2656		6.5 m Cylindrical steel frame with circular platform (similar to a well-head)
East Instrument Platform	47° 45.3907' N	127° 43.9062' W	2658		Large (3 m) grey steel frame
West CTD	47° 45.7594' N	127° 45.5360' W	2654		3 m yellow and white tripod
West Hydrophone Array	47° 45.7881' N	127° 45.5129' W	2670		Yellow metal pole rising 3 m from seafloor
West Instrument Platform	47° 45.7561' N	127° 45.5330' W	2661		Large (3 m) grey steel frame
Node	47° 44.5407' N	127° 43.7563' W	2662		Large 7 m yellow trawl resistant frame
West Piezometer	47° 45.7292' N	127° 45.5374' W	2660		1 m cylindrical steel platform
Neutrino Obs. Mooring (STRAW-01)	47° 45.3720' N	127° 43.9464' W	2546 to 2654		Fixed position mooring extending 147 m into the water column and topped with an orange buoy
Neutrino Obs. Mooring (STRAW-02)	47° 45.3868' N	127° 43.9716' W	2551 to 2659		Fixed position mooring extending 147 m into the water column and topped with an orange buoy
East Tilt-meter	47° 45.4030' N	127° 43.8961' W	2656		1 m cylindrical titanium can
NE Bottom Pressure Recorder	47° 54.3742' N	127° 37.2317' W	2640		1 m triangular steel platform
West Seismometer Auxiliary Platform	47° 45.7565' N	127° 45.4974' W	2654		1.5 m grey steel frame
SE Bottom Pressure Recorder	47° 33.7447' N	127° 36.4678' W	2633		1 m triangular steel platform
West Bottom Pressure Recorder	47° 45.8420' N	128° 3.4597' W	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: Adrian Round, Ocean Networks Canada's Director of Observatory Operations at around@uvic.ca or 250-472-5364 or Karen Douglas, GIS Specialist at kdouglas@uvic.ca or 250-472-5359.