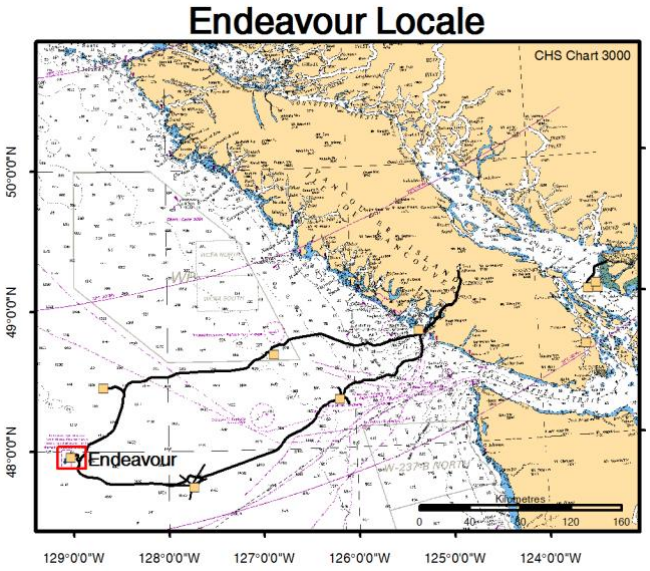
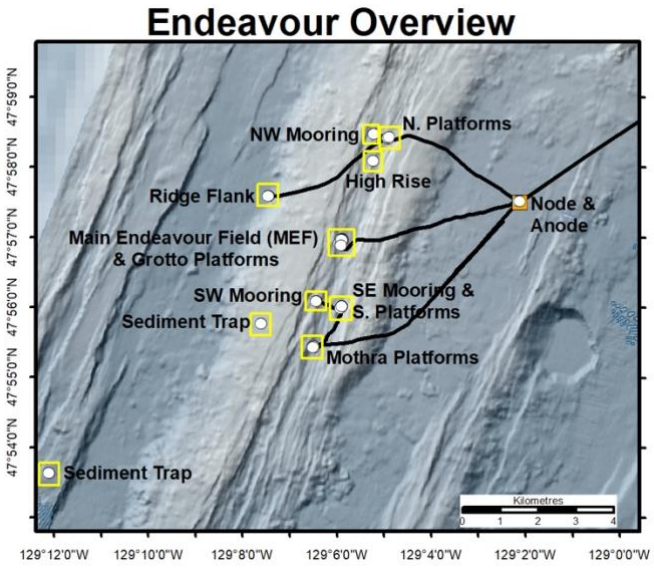
Information for Mariners – March 2021
NEPTUNE Observatory: Endeavour

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, 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 Endeavour site: **2 October 2020**
Where: Endeavour, Juan de Fuca Ridge, West Coast Vancouver Island. See chart # 3000.
The infrastructure at Endeavour is located within the Canadian Department of Fisheries and Oceans' Marine Protected Area.
Remotely Operated Vehicle Operators should be made aware that there are **3 moorings** at this site that extend 250 m into the water column. Please contact us for more information (contact information provided below).



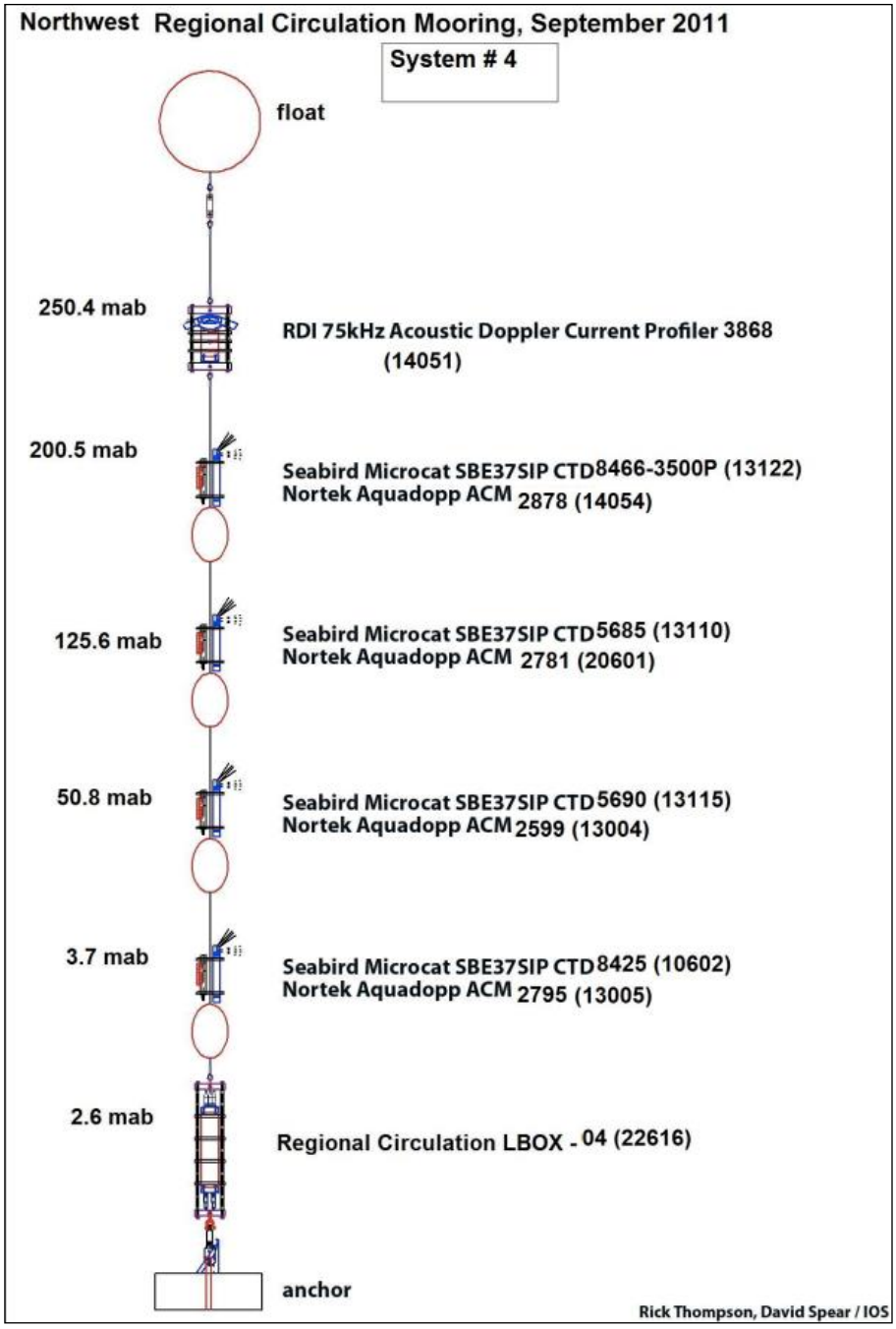


These figures have been produced by the University of Victoria based on Canadian Hydrographic Service (CHS) charts, pursuant to CHS DULA CHS # 2019-1004-1260-UV. The incorporation of data sourced from CHS in these products shall not be construed as constituting an endorsement by CHS of these products. 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.

Installations:

Name	Latitude	Longitude	Depth	Description
OffAxis_FarField_AutonomousSedimentTrap_2020-09	47.89378	-129.20181	2320	Yellow mooring extending 8m above bottom (See diagram below)
Mothra_IP_2020-06	47.92383	-129.10816	2271	Large (3 m) grey steel frame
Mothra_BARS_2020-09	47.92383	-129.10865	2272	1 m cylindrical can with 4 legs
Mothra_Camera_2020-09	47.92393	-129.10865	2276	2 m titanium tripod
Mothra_BBS_KEMO_2020-09	47.92414	-129.10844	2273	0.5 m titanium canister
Mothra_BPR_KEMO_2020-09	47.92414	-129.10844	2273	1 m steel triangular frame
OffAxis_NearField_AutonomousSedimentTrap_2020-09	47.92952	-129.12689	2136	Yellow mooring extending 8m above bottom (See diagram below)
EN-BU_BranchingUnit_2007-08	47.93261	-128.94840	2505	3 m cylindrical steel can
RC-S_BPR_2016-06	47.93310	-129.09885	2228	1 m steel triangular frame
RC-S_IP_2012-06	47.93323	-129.09886	2230	Large (3 m) grey steel frame
RCM-SE_MJB_2019-09	47.93353	-129.09839	2220	Fixed position mooring extending 270 m into the water column and topped with an orange buoy
RCM-SE_005mab_2019-09	47.93353	-129.09839	2218	Fixed position mooring extending 270 m into the water column and topped with an orange buoy
RCM-SE_050mab_2019-09	47.93353	-129.09839	2167	Fixed position mooring extending 270 m into the water column and topped with an orange buoy
RCM-SE_125mab_2019-09	47.93353	-129.09839	2093	Fixed position mooring extending 270 m into the water column and topped with an orange buoy
RCM-SE_200mab_2019-09	47.93353	-129.09839	2018	Fixed position mooring extending 270 m into the water column and topped with an orange buoy
RCM-SE_250mab_down_2019-09	47.93353	-129.09839	1969	Fixed position mooring extending 270 m into the water column and topped with an orange buoy
RCM-SE_250mab_up_2019-09	47.93353	-129.09839	1970	Fixed position mooring extending 270 m into the water column and topped with an orange buoy
RCM-SW_MJB_2019-05	47.93485	-129.10745	2167	Fixed position mooring extending 270 m into the water column and topped with an orange buoy
RCM-SW_005mab_2019-05	47.93485	-129.10745	2162	Fixed position mooring extending 270 m into the water column and topped with an orange buoy
RCM-SW_050mab_2019-05	47.93485	-129.10745	2117	Fixed position mooring extending 270 m into the water column and topped with an orange buoy
RCM-SW_125mab_2019-05	47.93485	-129.10745	2042	Fixed position mooring extending 270 m into the water column and topped with an orange buoy
RCM-SW_200mab_2019-05	47.93485	-129.10745	1967	Fixed position mooring extending 270 m into the water column and topped with an orange buoy
MEF_South_IP_2018-06	47.94805	-129.09892	2186	Large (3 m) grey steel frame
MEF_South_BARS_2018-07	47.94810	-129.09864	2193	1 m cylindrical can with 4 legs
MEF_South_BPR_2020-09	47.94817	-129.09885	2195	Bottom pressure recording instrument deployed on seabed
MEF_AutonomousSedimentTrap_2020-09	47.94849	-129.09936	2193	Yellow mooring extending 8m above bottom (See diagram below)
MEF_SPS_KEMF_2010-09	47.94857	-129.09866	2195	0.5 m titanium canister

MEF_SPS-BPR_BPR-Site_KEMF_2014-05	47.94858	-129.09868	2195	1 m steel triangular frame
MEF_SeismometerChain3_2018-06	47.94891	-129.09812	2192	1 m white cylinder
MEF_IP_2020-06	47.94893	-129.09855	2118	Large (3 m) grey steel frame
MEF_ADCP_2017-06	47.94909	-129.09823	2195	1 m cubic aluminum, plastic, and fiberglass platform
MEF_Autonomous_PPS_RAS_2020-09	47.94931	-129.09829	2184	Small white circular seabed instrument
Grotto_BARS03_2020-09	47.94940	-129.09843	2183	1 m cylindrical can with 4 legs
MEF_Hydrophone_2020-09	47.94941	-129.09834	2188	1.5 m steel tripod
MEF_SeismometerChain1_2018-06	47.94957	-129.09870	2189	1 m green and white square frame with 1 m cylinder
MEF_SeismometerChain2_2018-06	47.94964	-129.09790	2193	1 m white cylinder
EN-Node_Node_2009-08	47.95837	-129.03544	2323	Large 7 m yellow trawl resistant frame, 13 tons
EN-Node_SPS_ENEF_2018-06	47.95864	-129.03549	2325	1 m steel triangular frame
EN-Node-Seismometer-2020-06	47.95871	-129.03579	2319	This is an autonomous deployment at main Endeavour Node, offset-heading is 351 TN
RidgeFlank_BBS_ENWF_2016-06	47.95977	-129.12448	2361	1 m spherical grey titanium platform
RidgeFlank_AuxiliaryPlatform_ENWF_2016-06	47.95986	-129.12428	2360	1.5 m grey steel frame
HighRiseGodzilla_BARS_2019-09	47.96823	-129.08740	2152	1 m cylindrical can with 4 legs
RC-N_IP_2019-05-14	47.97337	-129.08188	2177	Large (3 m) grey steel frame
RC-N_SPS_NCHR_2016-06	47.97375	-129.08209	2152	1 m steel triangular frame
RC-N_BPR_2020-09	47.97379	-129.08164	2156	Bottom pressure recording instrument deployed on the seabed
RCM-NW_002mab_2018-06	47.97465	-129.08715	2144	Fixed position mooring extending 270 m into the water column and topped with an orange buoy
RCM-NW_127mab_2018-06	47.97465	-129.08715	2019	Fixed position mooring extending 270 m into the water column and topped with an orange buoy
RCM-NW_DBox_2018-06	47.97465	-129.08715	2146	Fixed position mooring extending 270 m into the water column and topped with an orange buoy
RCM-NW_050mab_2018-06	47.97465	-129.08715	2096	Fixed position mooring extending 270 m into the water column and topped with an orange buoy
RCM-NW_202mab_2018-06	47.97465	-129.08715	1944	Fixed position mooring extending 270 m into the water column and topped with an orange buoy
RCM-NW_248mab_2018-06	47.97465	-129.08715	1898	Fixed position mooring extending 270 m into the water column and topped with an orange buoy


Northwest Regional Circulation Mooring, September 2011
System # 4
float
250.4 mab
RDI 75kHz Acoustic Doppler Current Profiler 3868
(14051)
200.5 mab
Seabird Microcat SBE37SIP CTD 8466-3500P (13122)
Nortek Aquadopp ACM 2878 (14054)
125.6 mab
Seabird Microcat SBE37SIP CTD 5685 (13110)
Nortek Aquadopp ACM 2781 (20601)
50.8 mab
Seabird Microcat SBE37SIP CTD 5690 (13115)
Nortek Aquadopp ACM 2599 (13004)
3.7 mab
Seabird Microcat SBE37SIP CTD 8425 (10602)
Nortek Aquadopp ACM 2795 (13005)
2.6 mab
Regional Circulation LBOX - 04 (22616)
anchor
Rick Thompson, David Spear / IOS

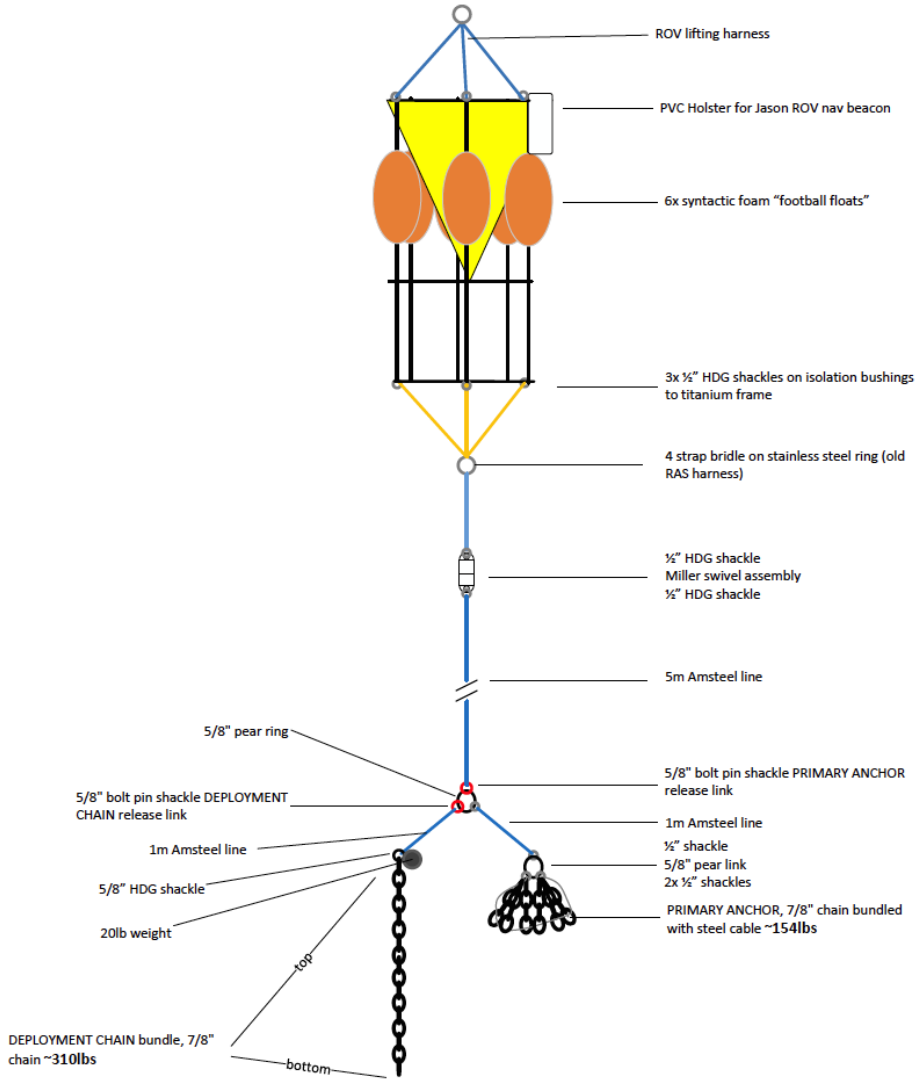


Figure 2: Sediment Trap Diagram

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 or 250 721-6279, or ONC GIS Specialists at GIS@oceannetworks.ca.