

Cascadia Initiative deployment update – OC1308A

The fifth cruise of 2013 to deploy ocean bottom seismographs (OBS) for the Cascadia Initiative community experiment was conducted on the *R/V Oceanus* cruise OC1308A Leg 5, August 18th to 22nd. This portion of the Year-3 OBS array covers the northern Juan de Fuca (JdF) plate and Cascadia margin. Data from this deployment will be available to the community after the instruments are recovered in the summer of 2014.

Fifteen Abalone OBS from the Scripps Institution of Oceanography (SIO) were deployed at 15 sites under excellent weather conditions. The Abalone OBS carry intermediate-period seismometers, and were built for the Amphibious Array with funding from the American Recovery and Reinvestment Act (ARRA). All 25 OBS carry a Differential Pressure Gauge (DPG). Eleven of the instruments were deployed along the Cascadia margin from central Vancouver island to just south of Newport. Four of the instruments were deployed on a ~70 km spaced grid on the northern Juan de Fuca plate.

The cruise plan was to deploy 15 stations in a counter-clockwise order. The deployment sites were chosen to coincide with deployment locations from Year 1 of the Cascadia Initiative. These sites were based on the locations determined by the community and refined based on advice from the fishing community. During this process some sites were moved slightly into nearby no-trawl zones, specifically Essential Fish Habitats (EFHs) in Grays Canyon region and Nehalem Bank/Shale Pile, and others were moved near known “hangs”. These deployments went very smoothly with excellent weather and no technical issues at all. The attached Table and Figure show the deployed seafloor sites.

A complete cruise report, additional information about the community experiment, and details of ongoing planning for 2014 and beyond is available of the Cascadia Initiative Expedition Team website: <http://cascadia.uoregon.edu/CIET>

Prepared by the Cascadia Initiative Expedition Team.

Table 1: SIO OBS Abalone Locations

Site	Surveyed Lat	Surveyed Lon	Depth (m)
M05C	46.1747	-124.9357	837
M04C	47.5581	-124.8082	570
J65C	47.8914	-125.1394	169
M02C	48.3066	-125.5999	141
M03C	47.8881	-126.1033	1839
J73C	48.7675	-126.1920	133
M01C	49.1498	-126.7219	138
J68C	48.4811	-127.8294	2587
J61C	47.8699	-128.1964	2673
J53C	47.1661	-127.9209	2717
J52C	46.9907	-127.0152	2640
M07C	44.8989	-125.1162	1365
M08C	44.1182	-124.8950	131
J25C	44.4722	-124.6214	144
J33C	45.1065	-124.5709	354

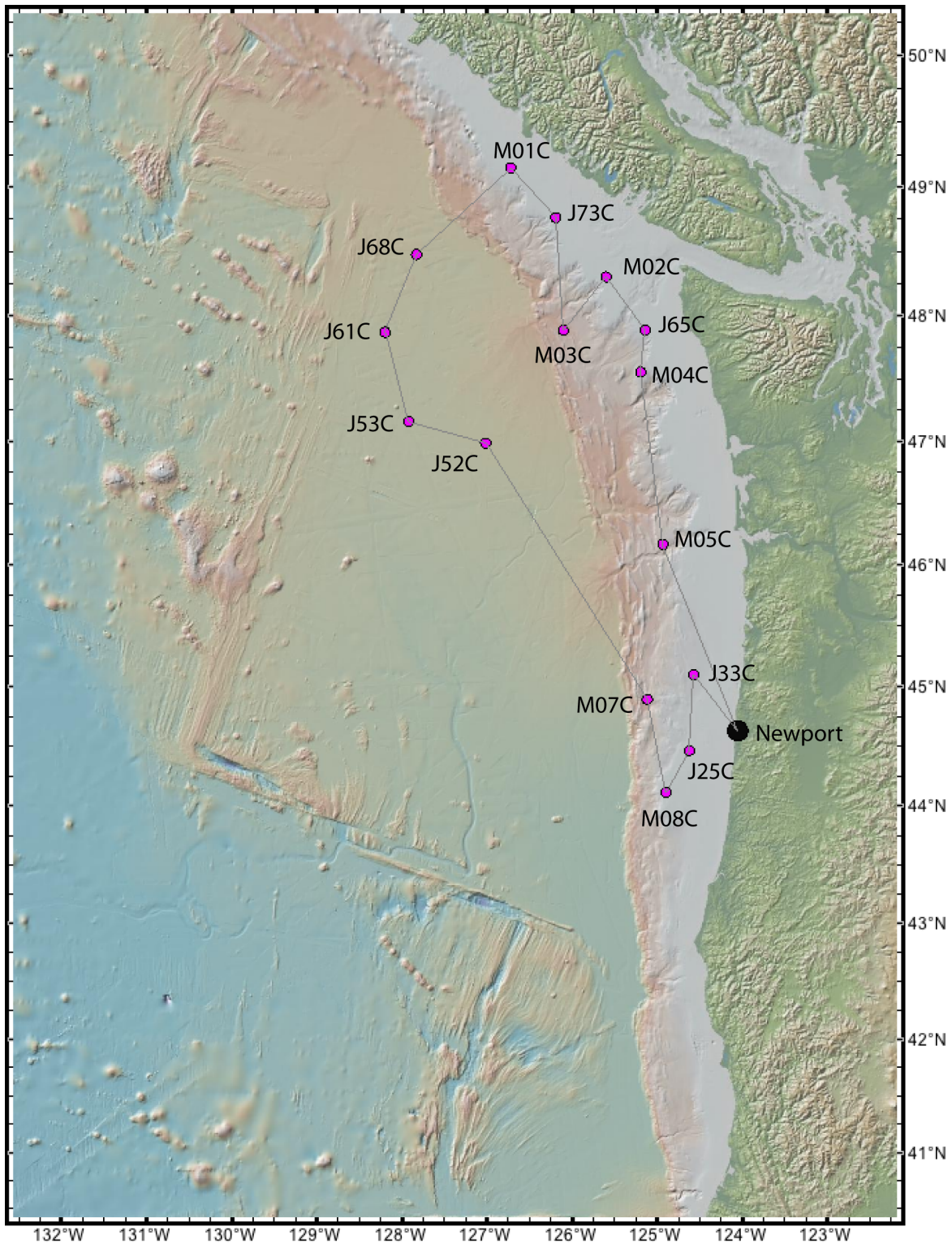


Fig 1: Map of OBS locations. All instruments deployed during this cruise were the Scripps Institute of Oceanography Abalones (picture of Abalones below). The deployment order is shown by the gray line starting with M05C and ending with J33C.