**Cascadia Initiative Recovery Cruise aboard the R/V Oceanus; 028 May – 02 June 2014**

The purpose of cruise OC1405B aboard the R/V Oceanus was to recover the northern section of an array of Ocean Bottom Seismometers (OBS) deployed in 2013 as part of the National Science Foundation funded Cascadia Initiative. The May 28 – June 02 2014 cruise recovered 15 American Recovery and Reinvestment Act (ARRA) funded Scripps Institution of Oceanography (SIO) Abalone type OBS moorings. The OBS design includes three-component seismometers designed to detect vertical seafloor ground motion, these full ocean depth, trawl protected instruments are suitable for deployment at any mooring site in the array. Additionally one NOAA hydrophone was deployed for monitoring ambient noise as part of a national program.

This was the second of six recovery/deployment cruises scheduled for the summer of 2014 and was focused on recovering fifteen instruments deployed across the accretionary prism onto the Juan de Fuca (JdF) plate, extending as far north as Vancouver Island, Canada while covering the region offshore of Washington and Oregon. The cruise plan was to recover the near shore instruments north of Newport while working counterclockwise to Vancouver Island and recovering the mid-plate OBS while transiting south to recover the near shore OBS south of Newport. The weather and seas remained calm and operations proceeded smoothly. The SIO team operated on a 24 hour schedule with the assistance of the crew and science party, resulting in efficient recovery of all instruments. The weather was cooperative throughout the entire cruise and no weather delays were required.

Overall, operations went smoothly, despite excellent conditions. Data recovery went well, with data from all sites being sequestered by the navy.

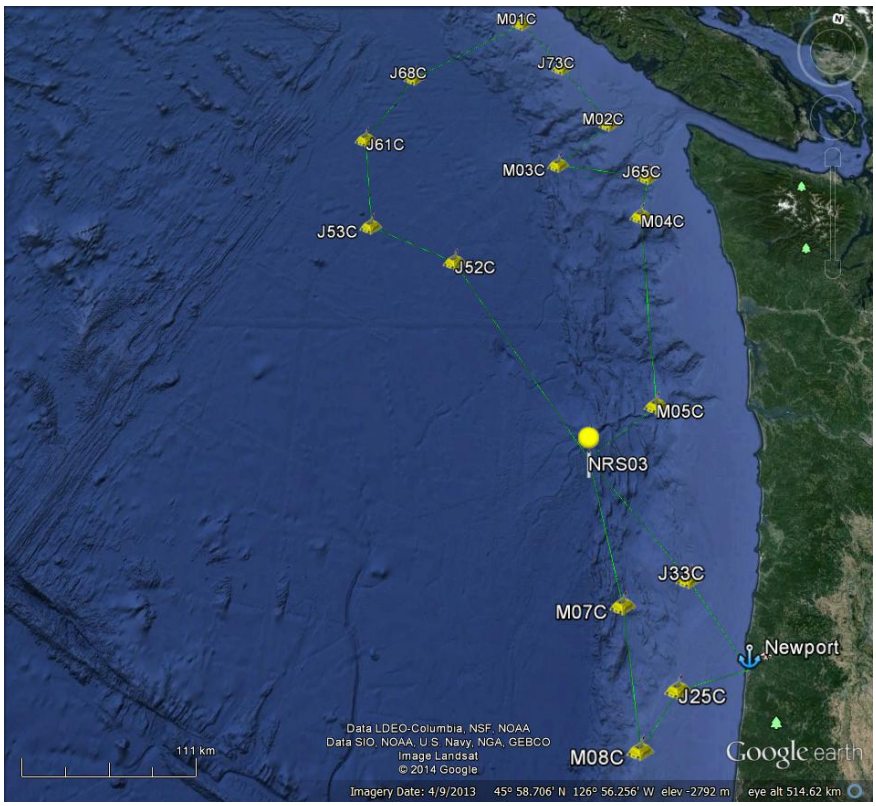
Two sites had issues. M07 obtained no seismic data, only DPG. It seems that the seismometer never leveled and drew down power causing instrument failure after 146 days. Possible cause; the seismometer may have been "rocking" ever so slightly whenever it powered up and could not level.

The second site (M02) had a connector issue and dead z channel. It had a full year worth of data, but only the horizontal seismic channels and the DPG. The vertical was dead.

The attached Table shows the deployment and surveyed sites (names are labeled with “C” to represent third year recovery). The complete cruise report is available from the cruise chief scientist Matt Fowler (Oregon State University/NOAA).

Additional information about the community experiment and details of the ongoing 2014 cruises is available of the Cascadia Initiative Expedition Team website:
http://pages.uoregon.edu/drt/CIET/

Prepared by the Cascadia Initiative Expedition Team.




The NRS deployment site was determined to be incorrect, and the mooring was subsequently recovered and returned to Newport until another anchor could be obtained.

| | Station Name | Lat deg | Lat min | N / S | Long deg | Long min | E/ W | Depth (m) | Arrival Date GMT |
|---|---|---|---|---|---|---|---|---|---|
| Port | Newport,OR | 44 | 38.200 | N | 124 | 3.200 | W | | |
| Station1 | J33C | 45 | 6.397 | N | 124 | 34.247 | W | 349 | 5/28/14 23:15 |
| Station2 | NRS03 | 45 | 45.787 | N | 125 | 31.103 | W | 955 | 5/29/14 5:21 |
| Station3 | M05C | 46 | 10.409 | N | 124 | 56.069 | W | 828 | 5/29/14 11:30 |
| Station4 | M04C | 47 | 33.505 | N | 125 | 11.538 | W | 563 | 5/29/14 19:55 |
| Station5 | J65C | 47 | 53.478 | N | 125 | 8.388 | W | 165 | 5/29/14 22:45 |
| Station6 | M03C | 47 | 53.305 | N | 126 | 6.275 | W | 1839 | 5/30/14 2:59 |
| Station7 | M02C | 48 | 18.414 | N | 125 | 36.074 | W | 139 | 5/30/14 7:21 |
| Station8 | J73C | 48 | 46.075 | N | 126 | 11.556 | W | 143 | 5/30/14 11:24 |
| Station9 | M01C | 49 | 9.023 | N | 126 | 43.333 | W | 133 | 5/30/14 19:12 |
| Station10 | J68C | 48 | 28.863 | N | 127 | 49.760 | W | 2587 | 5/31/14 0:34 |
| Station11 | J61C | 47 | 52.367 | N | 128 | 11.831 | W | 2673 | 5/31/14 5:29 |
| Station12 | J53C | 47 | 9.859 | N | 127 | 55.338 | W | 2717 | 5/31/14 11:03 |
| Station13 | J52C | 46 | 59.521 | N | 127 | 0.949 | W | 2640 | 5/31/14 15:50 |
| Station14 | NRS03 | 45 | 45.787 | N | 125 | 31.103 | W | 955 | 6/1/14 1:26 |
| Station15 | M07C | 44 | 53.925 | N | 125 | 7.005 | W | 1356 | 6/1/14 8:59 |
| Station16 | M08C | 44 | 7.112 | N | 124 | 53.721 | W | 126 | 6/1/14 14:32 |
| Station17 | J25C | 44 | 28.381 | N | 124 | 37.299 | W | 143 | 6/1/14 17:12 |
| Port | Newport,OR | 44 | 38.200 | N | 124 | 3.200 | W | | 6/1/14 20:10 |