UW OOI website: www.interactiveoceans.washington.edu
OOI Project Office website: www.oceanobservatories.org

Fact Sheet
Regional Scale Nodes component of the National Science Foundation's Ocean Observatories Initiative

- The formal name of the program is the Regional Scale Nodes component of the National Science Foundation's Ocean Observatories Initiative. You may also see the program referred to as the cabled component of the OOI, the regional (as in large scale) cabled ocean observatory, or the regional cabled network.
- The RSN is located in the Northeast Pacific Ocean and includes 540 miles of primary fiber-optic/power cables (installed in 2011) and 35 miles of secondary and other types of cable (some installed in 2013; remainder in 2014), for a total of 575 miles (925 km) of cables. The network of cables is connected to a shore station in Pacific City, Oregon. The RSN will be the first U.S. regional cabled ocean observatory. A complementary Canadian cabled observatory, NEPTUNE Canada, is located directly to the north of the RSN. (See About>Maps at www.interactiveoceans.washington.edu.)
- A team of scientists, engineers, educators, and project managers at the University of Washington is leading the design, construction, and early operations of the RSN. The network features 31 types of seafloor and water sensors that will deliver real-time and continuous data (including HD video) via the Internet to scientists, educators, and the public.
- There are six main cabled study sites: Two associated with Axial Seamount, an active underwater volcano 300 miles west of Astoria, Oregon; one at the base of the continental slope, 60 miles west of Newport, Oregon; one on the continental shelf at Southern Hydrate Ridge, the site of methane hydrate deposits; and two associated with the Endurance Array, the OOI coastal component led by Oregon State University.
- Six primary nodes (installed in 2012) will distribute power and bandwidth from the cables to secondary infrastructure, sensors, and instruments. A seventh node, also installed, is uninstrumented but will allow for system expansion if funding becomes available.
- Apart from the RSN, other components of the OOI now under construction and led by other institutions, include: 1) networks of moorings and gliders for coastal studies in the eastern and western U.S. (part of the latter is connected to the RSN cabled infrastructure); 2) polar ocean observing sites with networks of moorings and gliders off Chile, Argentina, the Irminger Sea in the North Atlantic, and Alaska; 3) a cyberinfrastructure that will connect the OOI network to users around the world; 4) development of educational and public engagement software. (For details on all OOI components, see www.oceanobservatories.org/infrastructure)
- In support of the NSF, the OOI Program is managed and coordinated by the OOI Project Office at the Consortium for Ocean Leadership in Washington, D.C.
- NSF funding arrived at the University of Washington and construction began in late 2009. RSN commissioning and full operations are planned for February 2015. The current agreement with the University of Washington is scheduled to end in April 2017. Total funding for design, construction, and early operations of the RSN is $239 million, *pending availability of funds and Congressional approval*.

For further information:
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