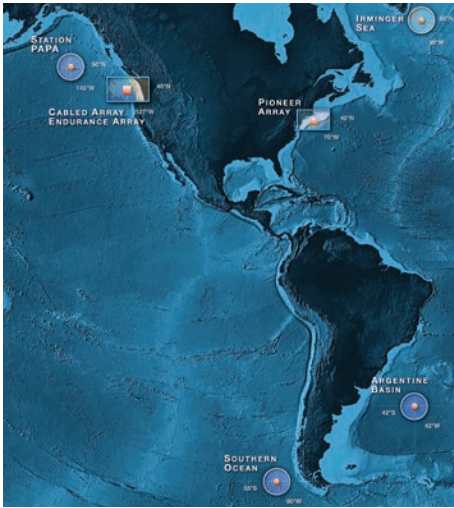




## Ocean Observatories Initiative



The Ocean Observatories Initiative (OOI) is a National Science Foundation-funded award to the Consortium for Ocean Leadership, which has overseen the construction and initial operations of the OOI, through partnerships with WHOI, OSU, UW, Rutgers, Raytheon, etc.

The OOI is an integrated infrastructure of science-driven platforms and sensor systems that measure physical, chemical, geological, and biological properties and processes from the seafloor to the sea surface. It was designed to provide data to address large-scale

scientific challenges such as climate and ecosystem health.

The OOI is composed of 89 platforms carrying over 830 instruments, providing over 100,000 science and engineering data products. Using undersea robotics, moorings, fiber-optic cables, and specialized instrumentation, the OOI links technology and advanced engineering capabilities to cyberinfrastructure, bringing ocean observing data to shore.

The OOI Cyberinfrastructure (CI) manages and integrates data from sensors deployed among these sites, linking marine infrastructure to operators and a global community of users including oceanographers, educators, scientists and the public. OOI data are made available online, free of charge, and as much as possible, data are provided in near- real time.

**Anyone with an Internet connection can access OOI data.**

## The OOI consists of seven arrays located in the Atlantic and Pacific Oceans:

**Cabled Array:** A combination of fiber-optic and electrical cables provide unprecedented power, bandwidth, and two-way communication to seafloor and water column instrumentation, enabling monitoring of volcanic activity, methane seeps, vent communities, and ocean processes on the Juan de Fuca plate.

**Coastal Arrays:** Cross-shelf moored arrays and mobile assets observe the dynamic coastal environment enabling examination of upwelling, shelf break fronts, and cross-shelf exchanges. *Endurance & Pioneer Arrays*

**Global Arrays:** Moored arrays and mobile assets provide a combination of time-series observations and mesoscale spatial sampling at four sparsely sampled, high-latitude regions critical to our understanding of climate and ocean circulation. *Argentine Basin, Irminger Sea, Southern Ocean, & Station Papa Arrays*

