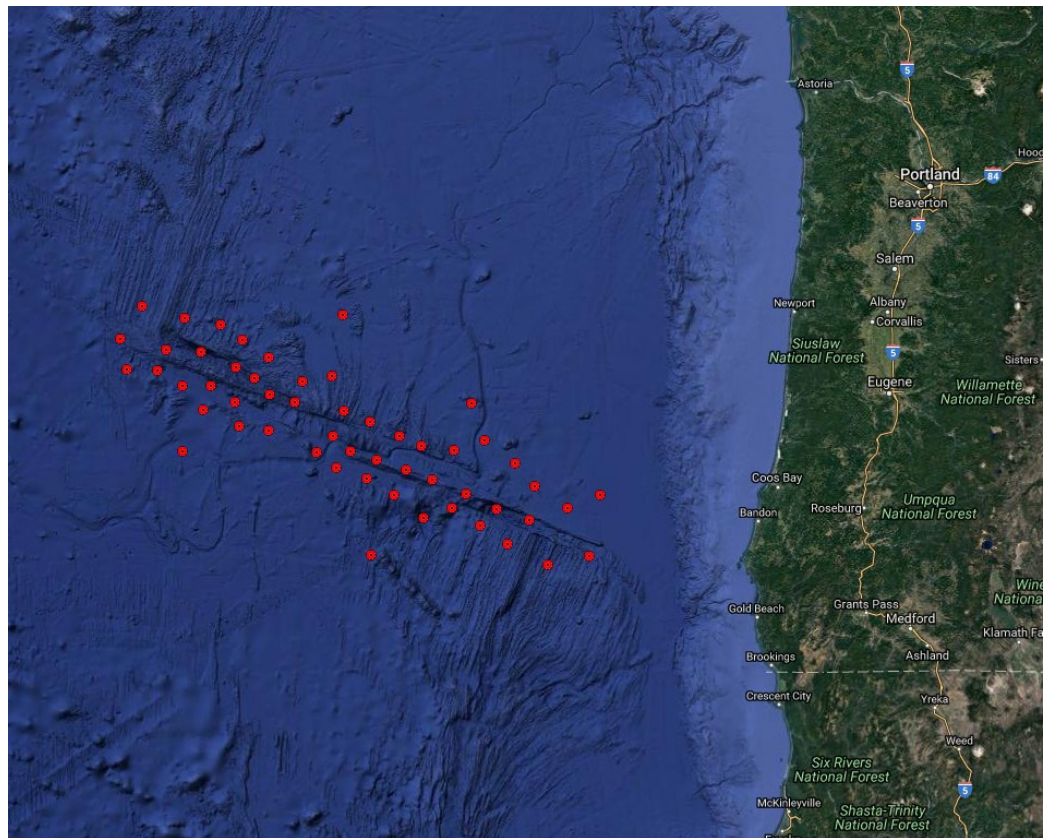


# OBSIP Experiment Archive

<b>Year:</b>	2012
<b>Experiment Name:</b>	The Blanco Transform OBS Experiment Plate Boundary Evolution and Physics at an Oceanic Transform Fault System
<b>Principal Investigator(s):</b>	John Nabelek (OSU) Jochen Braunmiller (OSU)

**Experiment Summary:** (Taken from the NSF Abstract Award #[1031858](#)): Most earthquakes occur along the boundaries of rocky plates that make up the Earth's surface. Most great earthquakes occur where plates converge, as in Indonesia, Japan and Cascadia. Other damaging events are associated with transform faults, where the plates slide past each other, in places such as Turkey and along the San Andreas Fault in California. Oceanic Transform Faults (OTFs) in the seafloor are geologically simpler than those onshore, and thus offer a natural laboratory for studying their seismicity. This study will deploy a dense array of 55 Ocean Bottom Seismographs (OBSs) off the coast of Oregon for one year to study the Blanco Transform fault. This deployment of OBSs will also be an important adjunct to the Cascadia Initiative (CI), an ongoing onshore/offshore seismic and geodetic experiment that includes an array of seismometers on the seafloor to complement an array of stations onshore. A primary aim of the Cascadia Initiative is to gain a better understanding seismicity associated with subduction along the Pacific margin of Washington, Oregon and northern California, where the risk of a megathrust earthquake is high.

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Deployment of the Blanco experiment

# OBSIP Experiment Archive

...Continued

<b>Year:</b>	2012
<b>Experiment Name:</b>	The Blanco Transform OBS Experiment Plate Boundary Evolution and Physics at an Oceanic Transform
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**Experiment Summary:** ...Among the broader impacts of this project are support for two graduate students and participation by several graduate students. The immediate scientific

## Cruises:

*9/18/2012 - 10/1/2012:*

55 3-component seismometers and differential pressure gauges were deployed along the oceanic transform fault.

*9/23/2013 - 10/6/2013:*

55 3-component seismometers recovered. No data recorded on CF cards at one station (BB270).

## Data:

Data from all OBSIP instruments deployed will be archived under temporary network code [X9](#) at the IRIS DMC.

## Downloads/Links:

None.

benefit is better understanding of seismicity and mechanics of Oceanic Transform Faults (OTFs), but the chief broader impact of this project will be its very significant contribution to the broader, Cascadia Initiative.