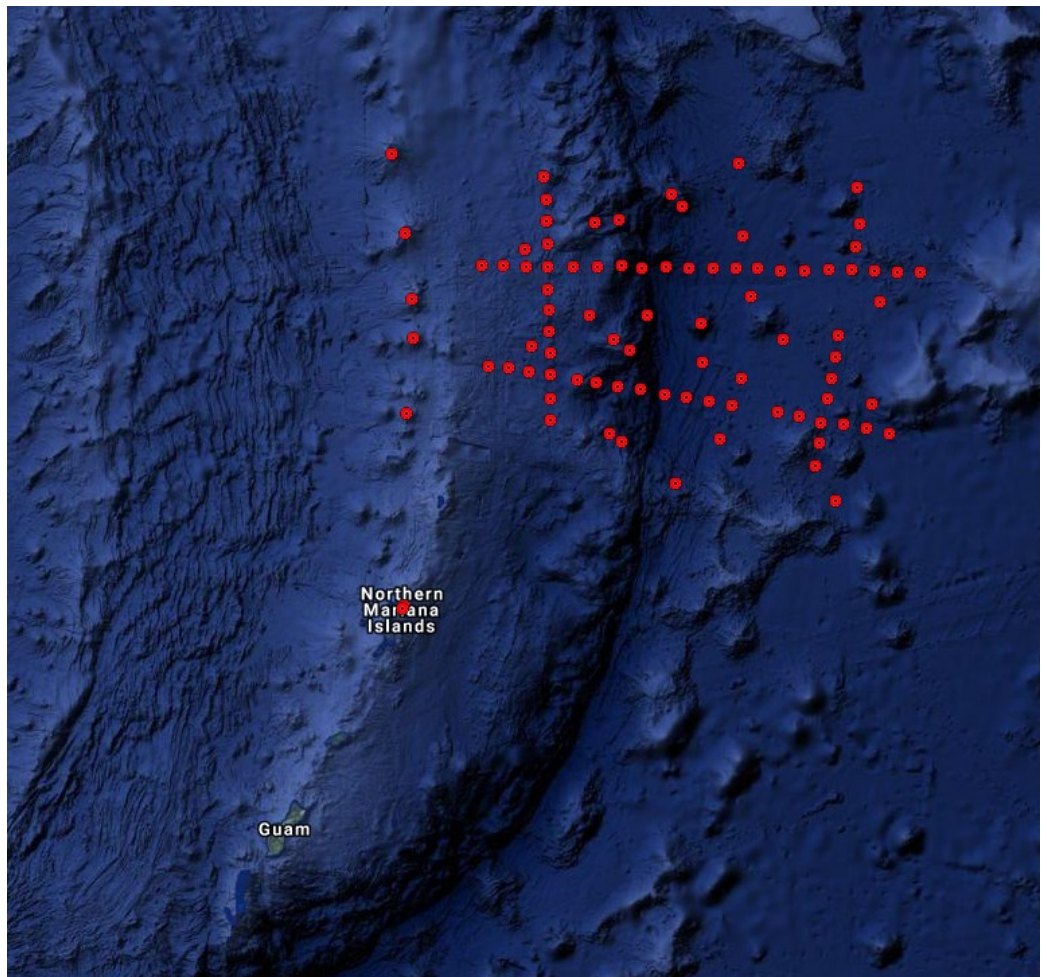


OBSIP Experiment Archive

Year:	2012
Experiment Name:	Mantle Serpentinization and Water Cycling Through the Mariana Trench and Forearc
Principal Investigator(s):	Doug Wiens (WUSTL)

Experiment Summary: (Taken from the NSF Abstract Award #[0841074](#)): This project will utilize active- and passive source seismic techniques, using short period and broad band OBSs, respectively, in the Mariana forearc, trench, and outer rise, in order to image the distribution of upper mantle serpentinization. This study will address a central question regarding the importance of serpentinite for understanding subduction zones. The research will quantify the flux of water subducted by upper-mantle serpentinite, and explore the relationships between serpentinization and seismicity in the outer forearc and outer rise.

Continued Next Page



Deployment of the Marianas experiment.

OBSIP Experiment Archive

...Continued

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Cruises:

1/26/2012 - 2/9/2012:

In early 2012, an experiment lead by Washington University in St. Louis Missouri and Woods Hole Oceanographic Institution deployed both broadband and short period ocean-bottom seismometers in an area located along the Mariana Trench in the western Pacific Ocean. The experiment will image the distribution of serpentinite in the upper mantle and explore the relationships between serpentinization and seismicity in a subduction zone. The R/V Langseth was employed to shoot airguns over the short period OBS array of the active seismic portion of the experiment.

3/4/2013 - 3/21/2013:

Broadband stations recovered.

Data:

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

Downloads/Links:

None.