

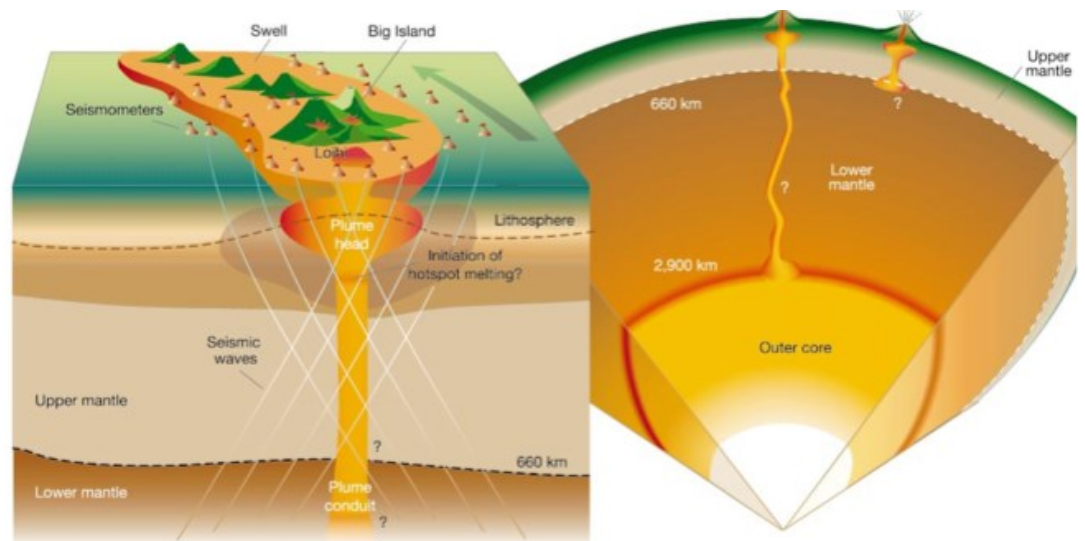
OBSIP Experiment Archive

Year:	2005
Experiment Name:	Plume-Lithosphere Undersea Mantle Experiment (PLUME) A Seismic Experiment to Image the Hawaiian Hotspot and Swell
Principal Investigator(s):	Gabi Laske (UCSD) John Orcutt (SIO) Jason Phipps Morgan (Cornell)

Experiment Summary: (Taken from NSF Abstract Award #[1446414](#)): This project will deploy 64 wide-band ocean-bottom seismometers and ten portable broad-band seismic island stations in a 15-month-long investigation. The objectives are to: locate and image the plume conduit beneath the

Hawaiian hotspot, image the roots of the Hawaiian swell over a sufficient area and with a sufficient resolution to distinguish among competing hypotheses for plume-lithosphere interaction, and

relate the findings from the seismic imaging experiments to geodynamical and geochemical, models for mantle plumes.



Cruises:

1/7/2005 - 1/25/2005:

35 broadband ocean bottom seismographs were deployed on board the R/V Melville.

1/7/2006 - 1/22/2006:

32 broadband ocean bottom seismographs were recovered on board the R/V Ka'imikai-o-Kanaloa, 3 instruments were not responding.

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Cruises:

4/12/2006 - 5/11/2006:

37 broadband ocean bottom seismographs, 13 SIO and 25 WHOI, were deployed on board the R/V Kilo Moana.

5/11/2007 - 6/6/2007:

28 broadband ocean bottom seismographs were recovered on board the R/V Kilo Moana, 8 were not responding and 2 did not lift off the seafloor.

2007 - 2007:

Rescue mission with ROV Jason on board the R/V Kilo Moana. 1 stainless bail and 3 SIO OBS were recovered along with 2 WHOI sensor balls and 2 intact WHOI OBS.

Data:

Data from all instruments deployed are archived under temporary network code [YS](#) at the IRIS DMC.

Downloads/Links:

[Nature News Feature](#)

[Science Publication](#)

[Nature Geoscience Publication](#)

[Cruise Report 2005_deploy](#)

[Cruise Report 2006_recovery](#)

[Cruise Report 2006_deploy](#)

[Cruise Report 2007_recovery](#)

[Cruise Report 2007_unofficial](#)