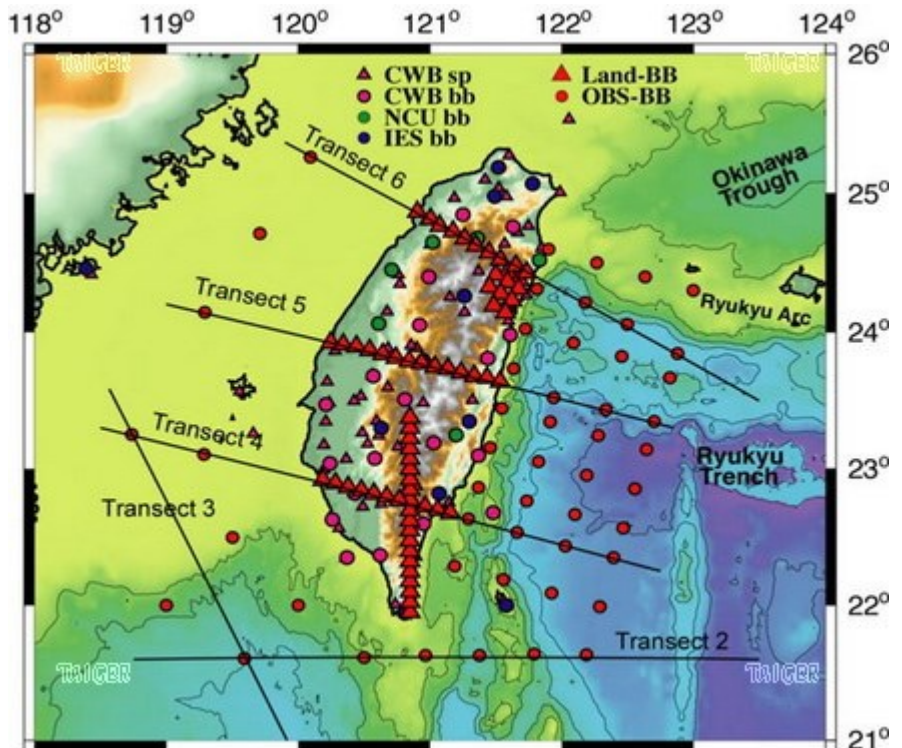


OBSIP Experiment Archive

Year:	2007
Experiment Name:	TAiwan Integrated GEodynamics Research (TAIGER)
Principal Investigator(s):	Kirk McIntosh (UTIG) Yosio Nakamura (UTIG) Harm Van Avendonk (UTIG) Francis Wu (Binghamton)

Experiment Summary: (Taken from NSF Award #[1010642](#) and #[0408609](#) Abstract): The TAIGER (Taiwan Integrated Geodynamics Research) project is a joint USA-Taiwan program that seeks to model the complex collision processes and the tectonic development of Taiwan, based on extensive observation. Funded by the NSF Continental Dynamics Program and by Taiwan's National Science Council and involving investigators at SUNY/Binghamton, UTIG, USC, Cornell, and Wisconsin, this project has acquired more than twice as much data as originally proposed due to synergistic contributions by Taiwan scientists and Taiwanese government science funding. From FY2006-2009, deployments of seismic instruments on land (IRIS) and at ocean-bottom (OBSIP) maximized the recording of local events and teleseisms, as well as artificial sources specially set off for TAIGER, in order to obtain high resolution 3-D images. To map the areas around Taiwan the PIs were able to use the NSF-supported research ship, the R/V Langseth, to create seismic waves that were recorded by a 6-km long streamer and also ocean-bottom and land recorders. These seismic and magnetotelluric profiles as well as petrologic lab data are currently being analyzed. TAIGER project data combined with geodynamics methods will be used to test a set of existing tectonic models that range from a thin skinned model, in which subduction of continental Eurasian mantle and lower crust is separated from a deforming crustal wedge by a plate boundary decollement, from a thick skinned model, where deformation of crust and mantle occurs within a vertically contiguous system, with progressive thickening of continental mantle beneath the core of the mountain belt.



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OBSIP Experiment Archive

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Cruises:

11/9/2007 - 11/17/2007:

10 LDEO broadband ocean bottom seismometers were deployed on the Ocean Research 1.

5/2008:

10 LDEO broadband OBS were recovered and 20 deployed via the R/V Melville.

4/30/2009 - 6/3/2009:

Deep-penetration seismic reflection data obtained on the R/V Langseth.

6/8/2009 - 6/14/2009:

18 LDEO broadband OBS were recovered on the R/V Langseth, with 2 instruments not recoverable.

6/14/2009 - 6/28/2009:

Deep-penetration seismic reflection data obtained on the R/V Langseth. OBS deployed and recovered on Taiwanese ships.

Data:

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

Downloads/Links:

None.