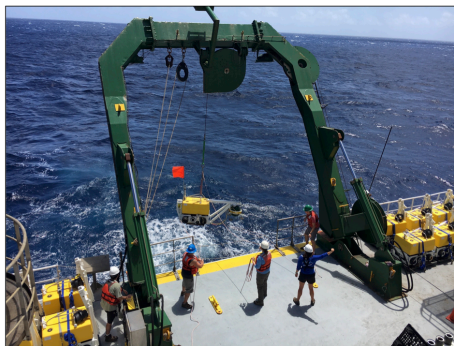
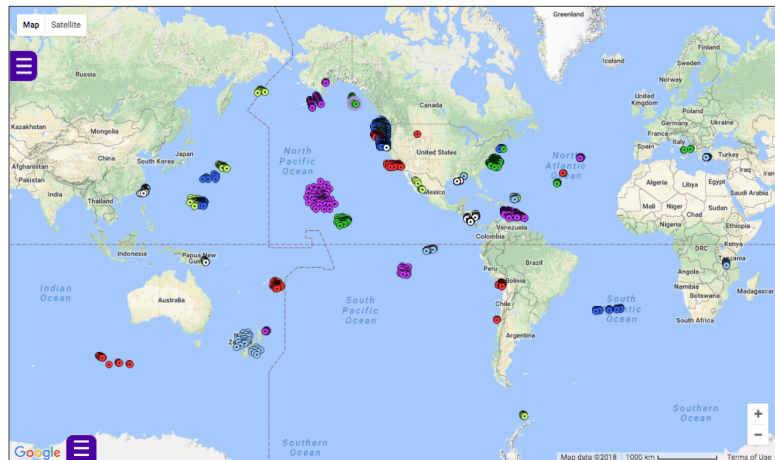


Insights from Operations of the U.S. Ocean Bottom Seismograph Instrument Pool

R. Woodward *IRIS*, K. Aderhold *IRIS*, A. Frassetto *IRIS*

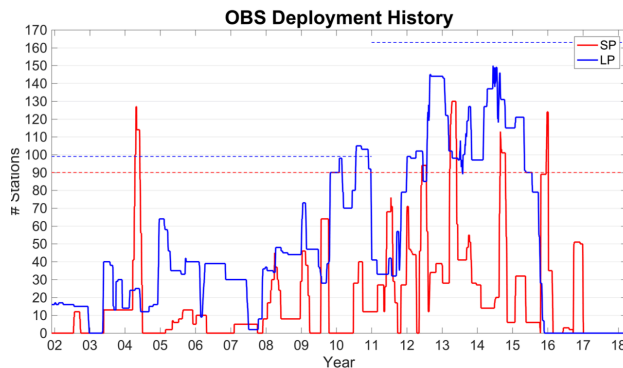
Over the past six years, the U.S. Ocean Bottom Seismograph Instrument Pool has undertaken a wide range of experiments. These experiments have addressed diverse scientific objectives through the deployment of instruments at different scales, geometries, water depths, and seasons. Overall, the experiments have been characterized by excellent instrument return rates, generally high data return, and an evolving set of instrument capabilities. These recent experiments provide insight and motivation for developments in areas such as instrument emplacement, deployment duration, communications (continuous or periodic), and standardized design elements – all key capabilities for future large-scale and/or long-term geophysical projects. Thus, we examine the characteristics, performance, and results of OBS experiments that have been done over the past six years as a key to understanding and motivating future technical directions for this important capability.

OBSIP Instrument Pool Holdings				
	SP	LP	Cascadia (LP)	Total
LDEO	-	30	29	59
SIO	60	39	15	114
WHOI	30	30	20	80
Total	90	99	64	253



Preparing to release a SIO OBS from the R/V Kilo Moana (April 2018)

Since 2001 there have been 55 SP, LP, and mixed-mode OBSIP experiments in a wide variety of marine environments. Nearly all of these have been archived with IRIS and are discoverable via the metadata aggregator (ds.iris.edu/mda/) and OBSIP website: www.obsip.org/experiments/experiment-table/



Left: OBSIP utilization starting on 12/1/2001, with one month padding pre- and post-deployment to account for staging and shipping equipment. Dashed lines mark the size of the pool (~99 LP pre-2011, ~163 LP after, 90 SP throughout). Instruments, especially SPs, may be deployed more than once during a cruise and thus in a few cases counts may appear to exceed inventory.