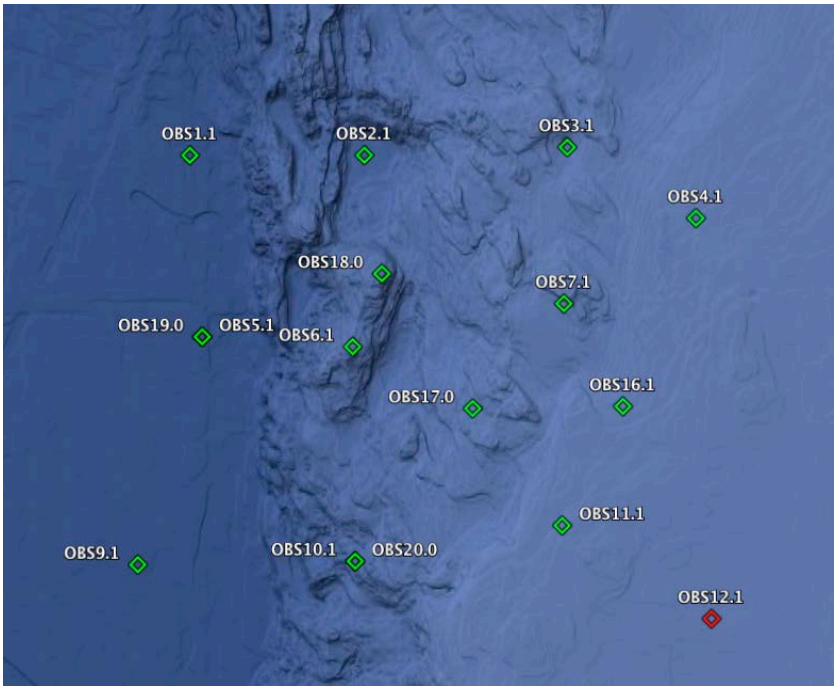
2009 SIO OBSIP Field Programs Funded through OCE

Trehu et al. – Offshore Oregon; 16 LC4x4 instruments, 24-month deployment (1-year twice); four recovery/deployment cruises on R/V Wecoma:

Proposal title: "Monitoring seismicity associated with a potential 'asperity' on the Cascadia megathrust". This project involves the deployment of 13 short-period and 3 long-period instruments on the continental margin offshore central Oregon that is characterized by a major gravity anomaly and an anomalously high level of seismic activity (compared to the rest of the Juan de Fuca/North America plate boundary offshore). The objective of this experiment is to document the microseismicity of this portion of the forearc and thus obtain insights into processes loading the megathrust here.



In September of 2007 instruments were initially positioned for the first 1-year deployment in a grid with ~50 km spacing and an aperture of 150 km. The following summer of 2008 instruments were recovered and redeployed for a second 1-year deployment. During summer 2009 all instruments were retrieved during a 7-day cruise on the *R/V Wecoma* out of Newport, Oregon (July 14-20). This was the final recovery of all instruments for this project. A summary of SIO instrument deployments is included below.

Site	LAT	LON	CF	SN	AC	Depth	Synch	TAG	Drift	Settings	Comment
OBS1.1	44.83468	-125.46283	1,T5-08,T6-08	50	64	2652	008:231:04:21:0	008:200:01:28:57.3266910		SP4x4 4ch/100hz	Moisture in logger-Data was fine
OBS2.1	44.83515	-125.12488	53,02,16	111	72	1850	008:231:01:57:0	009:199:22:48:58.5955129		LP T240 4ch/50hz	No flag
OBS3.1	44.84526	-124.73273	8026,08024,0704	40	32	523	008:184:17:58:0	2009:201:06:46:59.292202		SP4x4 3ch/100hz	No flag
OBS4.1	44.74740	-124.48525	8101,08025,0703	44	30	150	008:184:18:24:0	009:198:16:42:59.4007031		SP4x4 3ch/100hz	No flag
OBS5.1	44.58660	-125.43720	6,8,4gig	14	75	2712	008:231:07:44:0	009:199:04:34:59.1661064		SP4x4 3ch/100hz	
OBS6.1	44.57351	-125.13470	T1-08,T3-08,T4-08	69	78	740	008:230:09:59:0	009:200:20:36:08.6842223		SP4x4 4ch/100hz	No flag-long drift-no data on CF
OBS7.1	44.31850	-124.74053	8035,08102,0704	33	19	270	008:184:23:48:0	009:198:19:15:XX.1714399		SP4x4 3ch/100hz	No flag-dropout on last several MB of data from sample 3254702598-bad pin
OBS9.1	44.27440	-125.55966	32,41,61	106	103	2950	008:229:04:18:0	009:196:19:37:58.7731908		LP T240 4ch/50hz	
OBS10.1	44.28063	-125.14200	37,T208,63	73	67	1323	880:230:04:09:0	009:197:20:37:59.4762794		SP4x4 4ch/100hz	Bad horizontal channel
OBS11.1	44.32900	-124.74611	8007,08039,0810	31	20	128	008:185:03:40:0	009:198:00:31:56.6678501		SP4x4 3ch/100hz	No flag-Large drift
OBS12.1	44.20020	-124.46121	8105,08003,0801	10	2	103	008:185:05:54:0	NA		SP4x4 3ch/100hz	Washed up onto Seven Devils State Park Beach 8/19/2008
OBS14.1	43.99970	-125.15018	23,38,4gig	105	82	1534	008:229:12:44:0	009:196:23:41:42.6569200		LP T240 4ch/50hz	No flag-Timing was off-Need to check clock
OBS15.1	43.99980	-124.77463	19,46,4gig	29	40	124	008:230:02:39:0	009:197:16:24:00.1944570		SP4x4 3ch/100hz	
OBS16.1	44.49115	-124.62808	08006,0741,08104	25	3	167	008:185:03:02:0	009:198:19:46:59.2962967		SP4x4 3ch/100hz	No flag-No radio antenna
OBS17.0	44.4892	-124.9168	27,26,8gig	20	38	550	008:230:07:14:0	009:198:21:40:59.6432507		SP4x4 4ch/100hz	
OBS18.0	44.6732	-125.0909	T7-08,T8-08,T9-08	11	27	590	008:231:21:07:0	009:200:19:04:59:8604251		SP4x4 3ch/100hz	No flag
OBS19.0	44.5864	-125.4373	2008-500	39	39	2913	009:195:21:38:0	009:199:05:56:59.9878071		SP4x4 3ch/100hz	Decoupled L28-A2D resistors changed-Syntactic added
OBS20.0	44.2802	-125.142	2008--695	24	50	1330	009:195:23:51:0	009:197:21:36:59.9974835		SP4x4 3ch/100hz	Decoupled L28-A2D resistors changed-No syntactic