

Jeff Babcock
Cruise Plan – R/V New Horizon, May 17–20 2010

This cruise is quite straightforward, and involves multiple OBS deployments/recoveries at various sites, sediment grabs (if available), and Knudsen Echosounder surveys/data collection.

We'll be bringing out ~ 6–9 OBS units and doing a series of multiple deployments during the trip. We're planning on doing day and early evening operations only, unless we hit weather or technical problems.

We'll need to use the trawl winch for some down-wire acoustics test, and then will almost exclusively use the knuckle crane for deployments/recoveries off the port side. IF available, we are interested in collecting bottom sediment samples at the deployment sites, I will talk to the ResTech group about option for bottom collection equipment (Van Veen Grab?). At each site and during transits, we will collect Knudsen profiles to characterize the bottom, as well as do recon surveys toward future projects.

Since we have space I've got an open invitation to potentially add anyone wanting to come along for experience.

Timing: We are planning on loading the ship the morning of the 17th before departing. Departure will then be ~1100 that day. We are also planning on arriving back the afternoon of the 20th so we can offload that day. Again, timing is loosely controlled by weather and technical issues.

Summary (rough timeline):

- May 17 – Mon (am): Load ship beginning @ ~0800, target departure @ ~1100 (when gear secured), head for OBS Site A
- May 17 – Mon (pm): OBS deployment Site A, down wire acoustic tests, deploy 2–3 OBS units
- May 17 – Mon (pm): OBS deployment Site B, down wire acoustic tests, deploy 2–3 OBS units
- May 17 – 18: Transit to OBS Site C (~150 nm)
- May 18 – Tue (am): OBS deployment Site C, down wire acoustic tests, deploy 2–3 OBS units
- May 18 – Tue (pm): OBS Acoustic surveys @ Site C, recover 2–3 OBS units

May 18 – Tue (pm): Sediment grab near Site C
May 18 – 19: Transit to OBS Site B (~150 nm)
May 19 – Wed (am): OBS Acoustic surveys @ Site B
May 19 – Wed (pm): recover 2–3 OBS units @ Site B, sediment grab
May 19 – 20: Transit to OBS Site A (~12 nm) -- Heave To overnight
May 20 – Thu (am): OBS Acoustic surveys @ Site A, recover 2–3 OBS units @ Site A, sediment grab
May 20 – Thu (pm): Return to MarFac (target ~1300–1500 arrival)

OBS OPS:

The primary deployment locations for instruments will be:

OBS SITE A:	32 37.80'N	117 18.25'W	(shallow water site, ~100m)
OBS SITE B:	32 40.37'N	117 33.50'W	(mid water site, ~1100m)
OBS SITE C:	32 35.00'N	120 30.00'W	(deep water site, ~4000m)

Secondary testing sites:

OBS SITE D: 32 37.50'N 118 08.50'W

We will do acoustic surveys within a 5 nm circle around these sites. Deployment position may vary slightly within this circle dependent upon local bottom topography. Secondary OBS deployment sites will be used as contingency and/or extra deployment sites if time permits.

Equipment requirement:

Starboard crane. Hull transducer. Trawl wire to ~3500m depth. Sediment grab (Van Veen or similar)

KNUDSEN RECON SURVEY OPS:

Objective: to investigate character of fault system across SoCal
bight toward future surveys and research. Possible minimal
deviation toward
intermediate targets during transits.

Equipment requirement:
Knudsen profiler.