Cruise plan for: Robert G Sproul
Cruise dates: February 15-18, 2004
Chief Scientist*: Marlene Noble
US Geological Survey
(650) 329-5486

Jingping Xu
US Geological Survey
(650) 329-5283

Note: The listed chief Scientist is Marlene Noble, but she will not go on this cruise. Jingping Xu will be the actual chief Scientist

The USGS will deploy moored oceanographic equipment at 3 sites on the Palos Verdes shelf. See attached .pdf files for a detailed description of the equipment at each site. All sites are within 5 km of each other

Site B3

Location: 33 42.55 118 21.35
Water depth: 60 m
Equipment to be deployed:
One Surlyn surface buoy. There are no instruments on this buoy
One heavily-instrumented tripod

Site B6

Location 33 40.96 118 18.61
Water depth 60 m
Equipment to be deployed
One Surlyn surface buoy. There is a meteorological station on the buoy and 2 sensors in cages attached to the chain below the buoy
One heavily-instrumented tripod
One subsurface mooring that has 9 temperature or temperature/salinity sensors, a transmissometer and a sediment trap

Site B6.5

Location 33 41.4 118 18.38
Water depth 45m
Equipment to be deployed
One subsurface mooring that has 6 temperature or temperature/salinity sensors, a transmissometer and a sediment trap
Note: There will be a surface mooring already deployed at this site

Logistics plan:

USGS technicians will arrive at the Scripps staging area about a week before the cruise – The Sproul Resident technicians have already spoken with the USGS technicians and have made these arrangements. We will probably load the ship on Friday. We will leave the dock around 18:00 on February 15 and transit to site B6. We need to arrive at B6 a few hours before sunrise, so the exact leaving time will be determined by this schedule.

February 16:
Briefly survey the deployment site to determine exactly where the 60m isobath is. Then begin deploying the moorings at that site. We will probably deploy the surface mooring, then the subsurface, then the tripod. All moorings should be along the 60 m isobath, with the surface mooring between the subsurface and tripod

Move to next site, briefly survey region and deploy. If there is time, we will deploy the equipment at B3

If there is time, deploy the equipment at the last site. If not, we will stop operations for the night and deploy at first light the next day. There will be no operations overnight

Transit home.

Deployment details:

The buoy on the surface mooring will be deployed first, then towed to the location with the anchor on the deck. At the site, the anchor will free-fall to the bed

The tripods will be lowered to the seabed using the trawl winch (I think – details to be determined) and A-frame. An acoustic release will attach the trawl wire to the tripod. When the tripod is on the bed, we will fire the release and recover the wire

We are still debating how to deploy the subsurface moorings. Because the release is quite near the anchor, we may have to slip the anchor to the seabed – i.e. not free-fall it from the sea surface

Equipment needed on the ship

We will need the normal equipment we always use to deploy moorings: crane, winch, appropriate fathometer, gps, etc

Scientific Party list

I think the people going are:

Jingping Xu - chief scientist
Harold Williams
David Gonzales
Kevin O'Toole

Walter Olson
Joanne Ferreira
Lori Hibbler
Kevin Orzech or Jessie Lacy
Sproul primary Resident technician
Sproul training Resident technician