

Cabled Observatories, US

William Wilcock

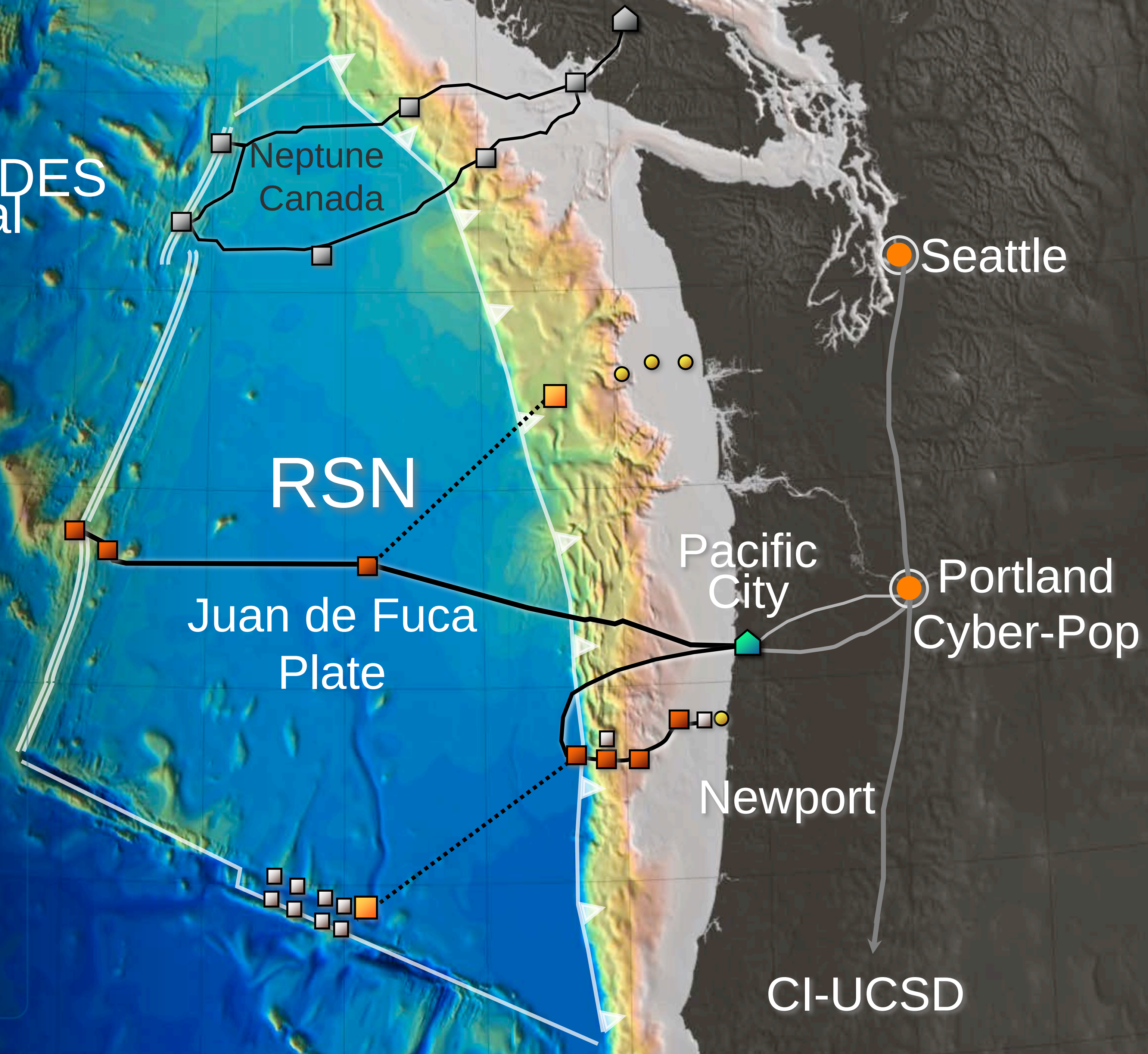
(slides courtesy of Deborah Kelley and John Delaney)

GeoPRISMS-Earthscope Science Workshop for
Cascadia
April 4-6, 2012

REGIONAL SCALE NODES
~800 km electro-optical

fiber
10 kv, 8 kW
240 Gb/sec
7 Primary Nodes
Highly Expandable

- Regional Scale Nodes
- Potential Expansion Nodes
- NEPTUNE Canada Nodes
- Shore Stations
- Coastal Mooring
- Cabled Coastal Mooring



Subcom Dependable



Primary Infrastructure

Signed contract with L3-MariPro, Inc.,

Nov 09

2010 Route Survey-Completed 5.2010

2011 Shore Station, Cable Installation, Completed 9.2011

2012 Primary Nodes Installed July-August - powered

2013 Primary Infrastructure Acceptance



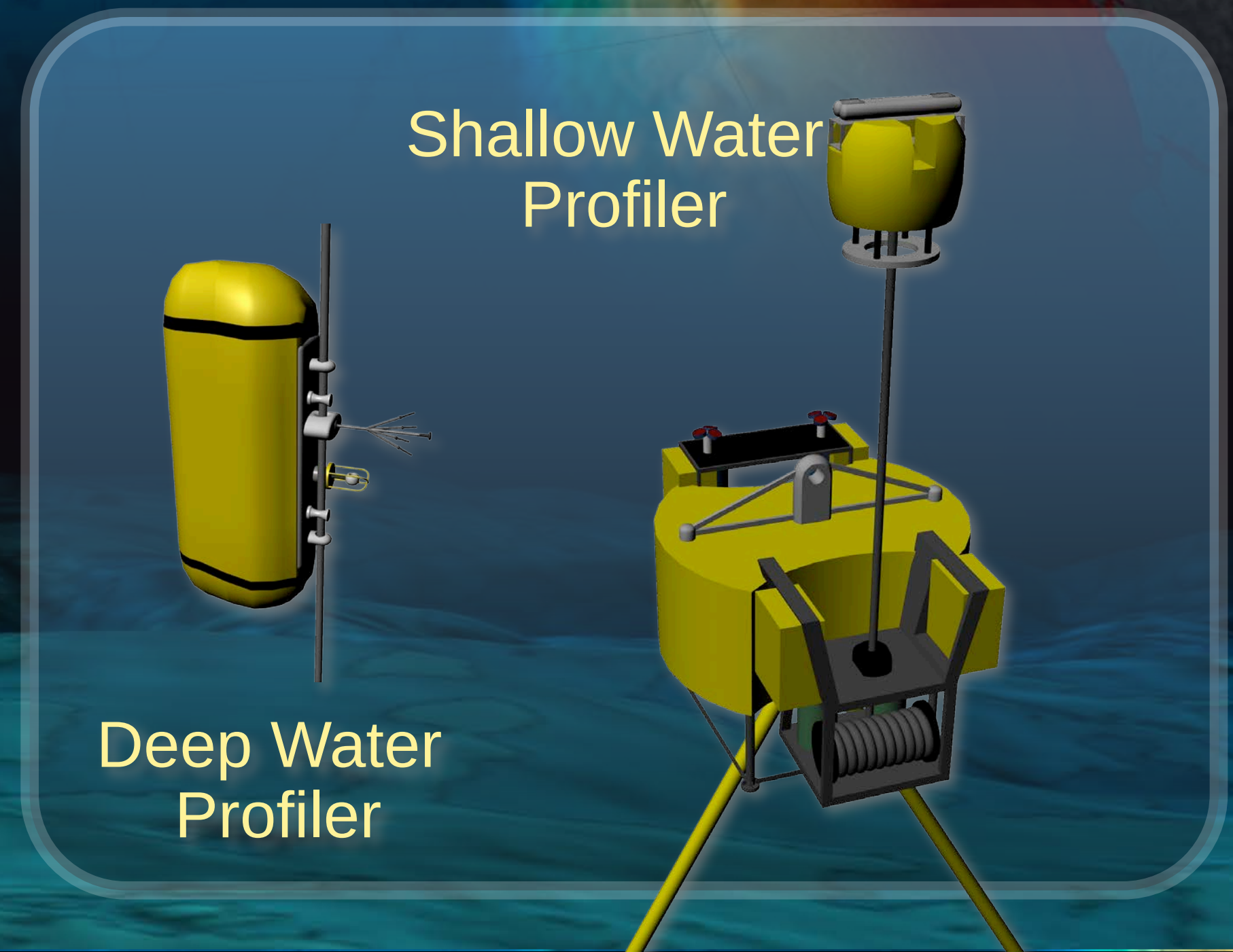
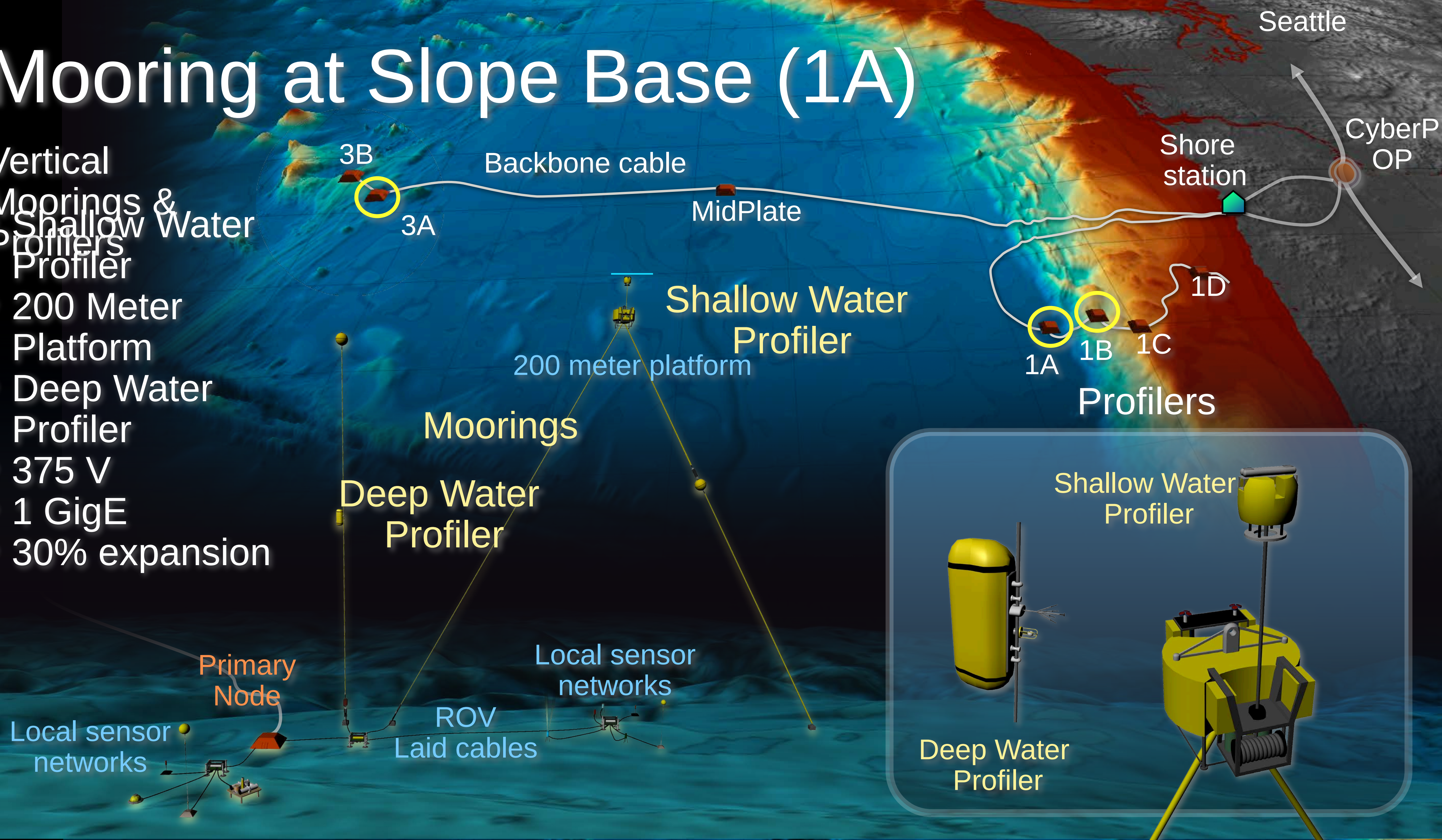


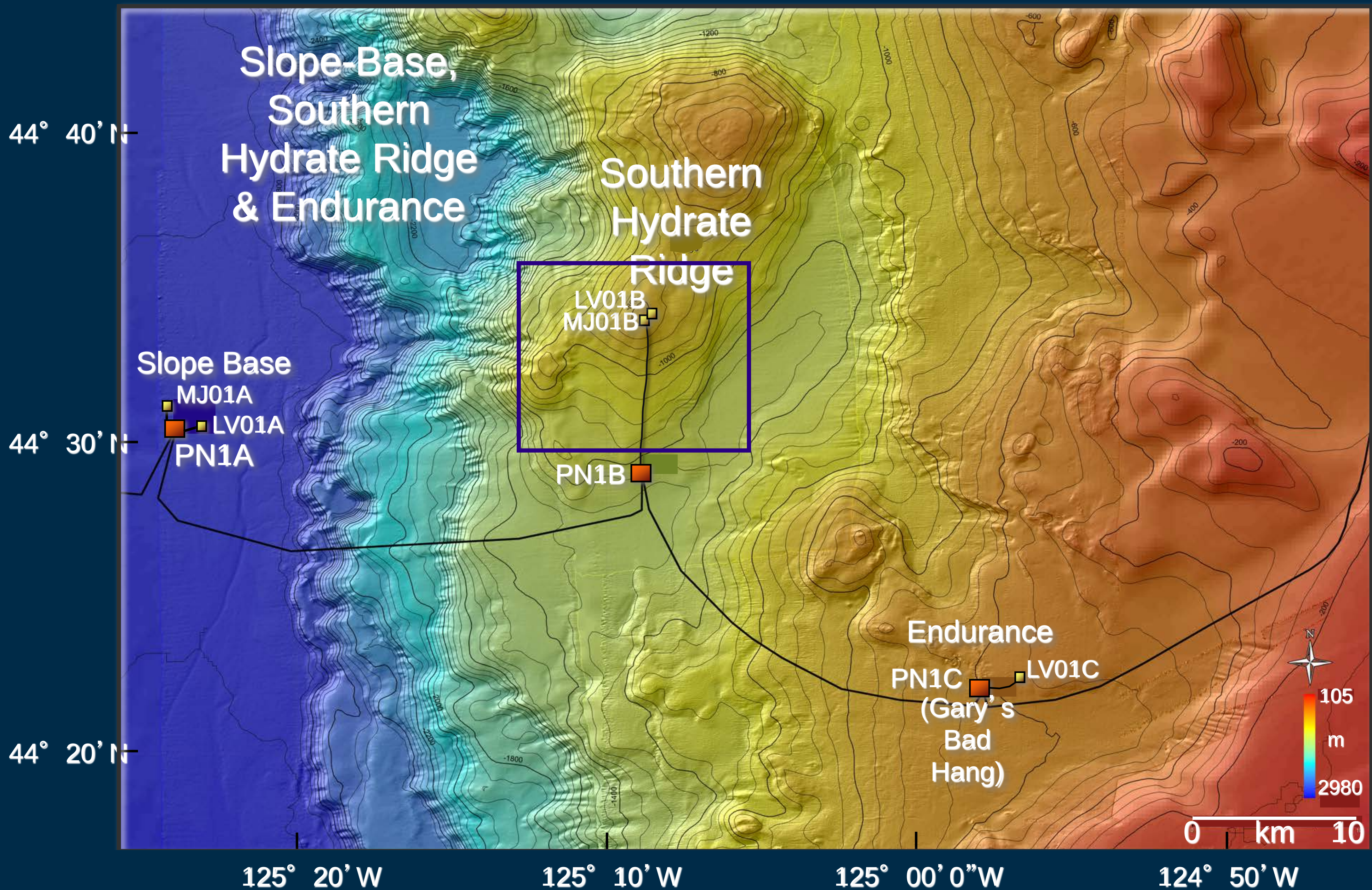
RSN Inventory

Backbone Cable		900 km
Primary Nodes		7
Secondary Nodes		18
Cabled Vertical Moorings		3
Mooring Cable		20 km
Sensors		108
Extension Cables		40 km

Mooring at Slope Base (1A)

- Vertical Moorings & Profilers
- Shallow Water Profiler
 - 200 Meter Platform
 - Deep Water Profiler
 - 375 V
 - 1 GigE
 - 30% expansion





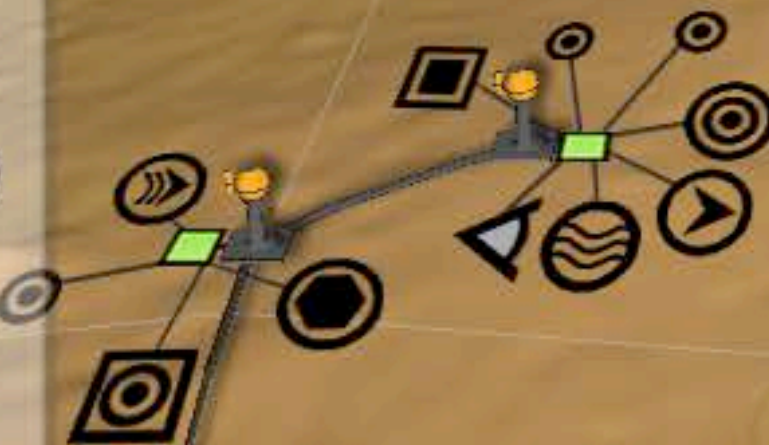
Southern Hydrate Ridge Installed & Transmitting Data Summer 2013

Instruments

- Short Period Seismometer
- Broadband Seismometer
- ADCP- Current Profiler
- Current Meter-Temp
- Pressure - Tides/Tsunamis
- Chemical Flow Sensor-Temp
- Mass Spectrometer -Gases
- Fluid Sampler-Temp
- Camera -Flow & Biology

To NPI

Site 1249
788 m



125°09'W

