



## **Dr. Plueddemann OOI: Pioneer-2 KN217**

Pre-Cruise Meeting 03/6/14

Agenda Items

### **Mission Objectives:**

This cruise represents the second infrastructure deployment for the Pioneer Array of the National Science Foundation's Ocean Observatories Initiative (OOI). The Pioneer Array will include a network of moorings and autonomous robotic vehicles to monitor waters of the continental shelf and slope south of New England and, in particular, the shelfbreak front where nutrients and other properties are exchanged between the coast and the deep ocean. Data from the Pioneer Array will provide new insights into coastal ocean processes such as shelf/slope nutrient exchange, air-sea property exchange, carbon cycling, and ocean acidification that are important to the New England shelf, and to continental shelf ecosystems around the world. For further information, see <http://www.oceanobservatories.org>.

### **Science Activities**

The Pioneer-2 cruise has 4 main objectives and 5 ancillary objectives. The main objectives are: 1) Deploy five OOI Coastal Profiler Moorings (CPMs) and validate their operation, 2) Deploy 6 OOI Coastal Gliders and validate their operation, 3) Recover two CPMs, 4) Perform field verification activities, including CTD casts with water sampling at mooring sites and glider deployment sites. The ancillary objectives are a) Deploy an OOI Coastal Surface Mooring (CSM) with fuel cell, b) Recover a CSM, c) Recover a CPM anchor and line pack, d) Conduct Seabeam surveys of the mooring sites and of the Pioneer moored array region in general, and e) Conduct cross-shelf and along-shelf surveys in the vicinity of the moored array using shipboard ADCPs.

### **Agenda Items:**

1. Dr. Albert Plueddemann: Chief Scientist  
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[aplueddemann@whoi.edu](mailto:aplueddemann@whoi.edu)
2. Identify operating area:  
**Pioneer Central Site**  
Latitude: 40° 8.2' N  
Longitude: 70° 46.5' E
3. Voyage Info:
  - a. **NUMBER:** KN217
  - b. **MOB:** April 9<sup>th</sup>, 2014, WHOI
  - c. **DEPARTURE:** April 11<sup>th</sup>
  - d. **ARRIVAL:** April 19<sup>th</sup>, WHOI

- e. **DEMOB END:** April 20<sup>th</sup>
- 4. Schedule Notes:
  - Science Personnel can move into their rooms April 10th
- 5. Science party (size) :

### **Pre-cruise and Administrative:**

1. Financial responsibility: OOI Project Number
2. Personnel forms: Due: **March 9<sup>th</sup>** to kgrodzki@whoi.edu
3. Berthing Plan: Complete and remit to csmith@whoi.edu
4. Any Special Food Requirements? (Kosher, Allergy, Vegetarian, etc)

### **Instrumentation & Technician Support :**

1. **General Duties of Marine Technician :**  
SSSG Technicians (WHOI SSSG) Peter Lemmond (Seabeam), Dave Simms  
WHOI sssg techs do not stand watches. But are available 24/7 to train and to assist in operations\*.  
\*Seabeam surveys will have a tech assigned.
2. **WHOI general use equipment required for cruise :**

#### **Shipboard Equipment**

- Bathymetry System 12 kHz
- ADCP 300 kHz
- Multibeam
- Science Underway Seawater System
- ADCP 75 kHz

#### **Shipboard Communication**

- Basic Internet access via HiSeasNet

#### **CTD/Water Sampling**

- 911+ Rosette 24-position, 10-liter bottle Rosette with dual T/C sensors
- Biospherical underwater PAR (1000m depth limit) with reference Surface PAR
- SBE43 oxygen sensor
- Wet Labs C\*Star transmissometer (660nm wavelength)
- Wet Labs FLNTURTD Combination Fluorometer and Turbidity Sensor

#### **Hydrographic Analysis Equipment**

- Dissolved Oxygen Titration System (Brinkmann Titrator)
- Oxygen Sample Bottles (available in 150 ml sizes)

- Salinometer
- Salt Bottles (2 cases of 125 ml provided)

**MET Sensors**

- Air temperature
- Barometric Pressure
- Precipitation
- Relative Humidity
- Short Wave Solar Radiation
- Wind speed and direction

**Sample Storage**

- Freezer -70°C 3.2 cu. ft. ea.
- Storage Notes: Freezer for chlorophyll and nutrient samples

**Winches**

- CTD Winch with .322" Electro-mechanical wire
- TSE winch (Winch Pool)
- Trawl Winch with 9/16th trawl wire
- Lantec heavy lift winch (Power requirements?)

**Ship [Other Requirements][Shipboard Equipment/Nav] :**

1. Science/Ship Operations :
  - a. Instrument Deployment / Recovery Procedures:
  - b. Over boarding Equipment (ISM)
  - c. Vans:
  - d. Night Operations: Yes
  
2. Deck Safety – Safety Shoes
  
3. Lab Safety – PPE
  
4. Hazardous Material: 

Please Submit MSDS electronically to csmith@whoi.edu and provide 3 hard copies of each MSDS to the Knorr’s Chief Mate.
  
5. Policies: (speed, departure/arrival times, moving aboard, etc.)  
11kts
  
6. Communication (voice, fax, e-mail, Blog)

**Logistics [Notes]**

1. Shipping gear to and from vessel  
Load list
  - a. US Customs (forms and AMS): NO

- b. Berthing plan:  
32 bunks available.
  
- c. Use of ship's agent or local facilities  
WHOI Agent: Chad Smith

### **Post-Cruise:**

1. Actions departing ship (Clean rooms, remove items from chemical van)
2. UNOLS cruise evaluation [Chief Scientist & Master]
3. Reports to foreign government/State Department [required for work in EEZs]
4. Data delivery [shipboard] USB Hard drive.
5. Data archiving policy  
All data on a WHOI Cruise Data Distribution (which includes all underway data) will, by default be considered publicly available once a copy of it has been delivered to the chief scientist at the end of the cruise. Please review the [Cruise Assignment of Data Access Protection](#)

As of January 1, 2011, the default treatment for underway data from Woods Hole Oceanographic Institution (WHOI) research vessels is:

1. Cruise data files are copied by a WHOI SSSG Technician to the distribution media. One copy is delivered to the cruise Chief Scientist, the other is delivered to WHOI's Data Library and Archives. Please note that the distribution of cruise data to other scientist is the responsibility of the Chief Scientist.
2. The **default** access status for the cruise instrument datasets is that they will be immediately accessible by the public. If something other than this default protection is desired, the Chief Scientist must assign alternate protection as indicated below. For cruises funded by the National Science Foundation ,the maximum protection is two years, for non-NFS cruises, other guidelines may apply.
3. WHOI maintains a local copy of the cruise shipboard data distribution at its Data Library and Archives, which also honors access moratorium periods. If the cruise Chief Scientist wishes to modify the data protection assignments made in this pre-cruise document upon cruise completion, they should contact the WHOI Data Library and Archives at [dla@whoi.edu](mailto:dla@whoi.edu), or the SSSG Data Manager at [sssgdatamgr@whoi.edu](mailto:sssgdatamgr@whoi.edu)