



Science Verification IV AR03 R/V Neil Armstrong

Friday March 25th at 1:00 PM

Agenda Items

Previous meeting's notes in green

Mission Objectives:

Evaluation of the R/V Neil Armstrong's scientific capabilities (Science Verification) by Conducting ROV, AUV, and telepresence operations that includes full utilization of laboratory and shipboard equipment use (e.g., ice machines, hoods, etc.) in preparation for similar cruises utilizing these assets in the future. The cruise science operations will begin at the Pioneer Array, where the ground cable will be disconnected, the AUV dock and anchors recovered.

The R/V Neil Armstrong is a new vessel, and it's capabilities for science have not been fully tested. The objective of this cruise is to test and evaluate the ship. While WHOI wants to see all participants gain usable data and/or samples from our Science Verification Cruises, science personnel must understand that the ship and her systems may not function as intended.

Science Activities

1. Deploy Kraken-II ROV and disconnect ground cable at Pioneer Array; Recover AUV Dock, Recover anchors (ROV to arrive for mobilization Friday April 29th)
2. ROV operations (Kraken-II), including exploration, image acquisition, and sampling biology and seafloor features in the deep-water canyons near the Pioneer Array
3. AUV operations (Nereid Under Ice Vehicle) that include surveying and image acquisition. Communication to shore via telepresence operations. (Funding deadline of March 30th)

Agenda Items:

1. Principal science party members:

Timothy Shank: Chief Scientist
Woods Hole Oceanographic Institution
Redfield 234B, MS#33
Woods Hole, Ma. USA 02543
+1 508 289 3392
tshank@whoi.edu

Andy Bowen: Principal Investigator
Woods Hole Oceanographic Institution
Blake 215, MS#07
Woods Hole, Ma. USA 02543
+1 508 289 2643
abowen@whoi.edu

2. Identify operating area:

OOI Pioneer Array and surrounding waters

3. Voyage Info:

- a. **NUMBER:** AR03
- b. **MOB:** 30 April 2016
- c. **DEPARTURE:** 02 May 2016 Woods Hole, MA
- d. **ARRIVAL:** 09 May 2016 Woods Hole, MA
- e. **DEMOB END:** 10 May 2016

4. Schedule Notes:

- Science Personnel can move into their rooms May 1st

5. Science party (size) : **XX** 22 Max

Pre-cruise and Administrative:

- 1. Financial responsibility: Purchase order: to be set up with WHOI
- 2. Personnel forms: Due: **April 2nd** 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) Joe McCabe, Additional tech TBD
WHOI sssg techs do not stand watches. But are available 24/7 to train and to assist in operations.

2. WHOI general use equipment required for cruise :

Shipboard Equipment

Acoustics

- Kongsberg EM122 Multibeam –Underway data needed by Masako
- Knudsen 3260 Sub Bottom Profiler
- Kongsberg EM710 Multibeam –Underway data needed by Masako
- Kongsberg Sonar Synchronization System
- Kongsberg HiPAP Gantry with Sonardyne USBL

Shipboard Communication

- Basic Internet access via HiSeasNet
- Upgraded bandwidth needed for telepresence? POC: Dwight Coleman URI Add to precruise email chain

CTD/Water Sampling

- CTD

Hydrographic Analysis Equipment

- Needed?

MET Sensors

- Needed?

Sediment Sampling:

- None

Sample Storage

- None

Winches

- ~~TSE for OOI Mooring?~~
- ROV deployment Winch
- Heavy Lift Winch (Kemp)

Other:

Magnetometer needed?

Vans

- ~~UCON ROV Control Van~~ (Possible set up in lab, leave control van ashore)
- NUI Van
- Other Vans? (Storage van?)

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

1. Science/Ship Operations :
 - a. Instrument Deployment / Recovery Procedures: Nereid is similar to Sentry in deployment procedure.
 - b. Over boarding Equipment (ISM)
 - c. Vans: 2?
 - d. Night Operations: Yes
2. Deck Safety – Safety Shoes
3. Lab Safety – PPE
4. Hazardous Material: Yes
 - Flammable?

- Radiological?
- Other?

*Complete Radiological authorization with WHOI Safety Department

Please Submit MSDS electronically to csmith@whoi.edu and provide 3 hard copies of each MSDS to the R/V Neil Armstrong'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. No Customs
 - b. Berthing plan:
22 bunks available (2 reserved for Marine Techs).
 - c. Use of ship's agent or local facilities

Shipping Address:

Master R/V Neil Armstrong
Attn: Tim Shank
Woods Hole Oceanographic Institution
266 Woods Hole Rd
Woods Hole, MA
02543

Ship's Agent:

Chad Smith
Cell: 617-999-4163
Office: 508-289-3811
csmith@whoi.edu

Post-Cruise:

1. Actions departing ship (Clean rooms, remove items from the ship)

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, or the SSSG Data Manager at sssgdatamgr@whoi.edu