



Pre-Cruise Meeting 1300 EST, September 4, 2014  
AT26-24 / Geoffrey Wheat. Nov 30 to Dec 12, 2014.  
RV Atlantis & HOV Alvin

## **General Program Overview:**

### 1. Scientific Objectives:

We will conduct an eleven dive operation with the submersible Alvin to collect fluids, rocks and sediment, retrieve experiments deployed in 2013, and measure temperature in the venting fluids and in the sediment. These data and samples will be combined to generate the first well-constrained estimates of hydrothermal flows from Dorado outcrop

### Activities:

We will use the submersible Alvin to collect fluids, sediment, rocks, and make measurements of heat flow and temperature. We also will collect water using the CTD. We will use the multi-beam system on the Atlantis to map areas that were missed in 2013. We will conduct a gravity coring operation at night.

### 2. Identify other PIs associated with the cruise:

Andrew Fisher, Samuel Hulme,

### 3. Identify the at-sea Chief Scientist:

Geoff Wheat

### 4. Identify operating area:

86 to 88 degrees west 8 to 10 degrees north (TicoFlux site) and CR CORKs

5. Voyage Dates and Leg #: **NOV 30 to DEC 12, 2014 / AT26-24**  
Pre Mobe - San Fran Oct 20<sup>th</sup>.  
Mobe Nov 28 and 29. Puntarenas Anchorage.  
Move aboard date 11/28  
Demobe Dec 13. Science moves off 12/13.
6. Science party (size) -  
  
(24 bunks available for science party)

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

1. **Diplomatic clearance** requirements for operations in EEZs:  
Costa Rica pending.
2. **Financial responsibility:** POs? How many to set up?  
1 Per PI group?  
(For port / loading logistical expenses)
3. **Personnel forms** (Passports, Drivers Lic, Visas, Entry Fees)
  - Personnel forms req. 1 month prior to cruise.
  - We will need list for foreign collaborators if any.
4. Any Special Food Requirements (Gluten Free, Vegetarian, Kosher, etc.)
5. **Berthing Plan** - 1 week prior to mobilization;  
<http://www.whoi.edu/page.do?pid=822>
6. Lab Layout plan:  
<http://www.whoi.edu/main/ships/atlantis/lab-science-spaces>

## RV ATLANTIS Instrumentation & Technician Support [Installed Scientific Equipment]

1. General Duties of Marine Technicians (SSSG techs)  
Allison Heater and Catie Grave are scheduled SSSG techs for this cruise.

Techs will train science team w/ CTD deployments & recoveries.

2. WHOI general use equipment required for cruise *[Installed Scientific Equipment]*.

- A. Multibeam - No maps
- B. CTD rosette w/ SBE43 O2, Wet Labs C\*Star transmissometer
- C. D.I. H2O - volume / day? =
- D. Bathymetry 12 kHz
- E. Bathymetry 3.5kHz
- F. Fume Hood
- G. Walk in Refer set to 4C
- H. Walk in Freezer set to 4C
- I. Sippican XBT System (Mark 21).
- J. Basic High Seas Net
- K. Sonardyne USBL

### Science Party Supplied Equipment:

Ship: Gravity Corer - Beth Orcutt

Alvin: Back up heat flow probe and O2 sensor.

## HOV ALVIN- AT26-24

*It is most important to communicate with Bruce Strickrott directly and to refer to Alvin Operations published on the WHOI website:*

<http://www.whoi.edu/page.do?pid=10695>

### 1. General work description / Brief operation description or comments:

Collecting push cores, fluids, rocks, and temperature/O2 data.

Also we will bring a heat flow probe as back up to the Alvin heat flow probe.

### 2. Number of instruments / samples to recover and their most accurate positions:

- a. Bio Collection Boxes (12x12x24") -
- b. Bio Collection Boxes (12x12x12") -
- c. Low temp heat probe
- d. Push corers (12-pack rack)
- e. Scoop nets
- f. Search sonar
- g. Video duplication
- h. CTD
- i. Major water sampler
- l. Elevators - 1

### 3. Other sampling from Alvin

Sci supplied heat flow probe (back up) and Oxygen Sensor brought by science.

PRESSURE TESTED?

**4. Please give a brief description of the equipment, its intended purpose, the cruise # it was last used on if any and its deployment method.**

Heat flow probe into the sediment or the oxygen sensor into fluid flow.

Does this equipment require manipulation? YES

If yes, please describe how the equipment is to be manipulated.

Use the manipulator to move the heat flow probe into the sediment or the oxygen sensor into fluid flow

**5. Do you intend to recover any previous deployed equipment?**

YES - osmosamplers, miniture temperature recorders and rock slides  
No glass spheres for buoyancy or pressure housings.

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

1. Science / Ship Operations
  - a. Instrument Deployment / Recovery Procedures:  
Alvin, CTD, Gravity Coring and Elevator (s).
  - b. Overboarding Equipment: (ISM)
  - c. Vans: Chemical storage van.
  - d. Hazards: [weight, bulk, chemical, pres.] Types?  
**Chems - Gases?**
  - e. Night Operations: YES

2. Deck Safety - Safety Shoes ( X ), Experience ( X )
  - a. Science personnel have Training/Experience to operate/deploy gear
3. Lab Safety - PPE ( X ), Lab Training ( X )
4. Hazardous Material- Please Fill out **HAZMAT INVENTORY FORM**

<http://www.whoi.edu/sbl/liteSite.do?litesiteid=7092&articleId=10875>

- a. Chemicals & Compressed Gases?
  - i. Inventory Form
  - ii. Spill Kit
  - iii. Loading and waste removal logistics
- b. Isotope Use [**Isotope Use Approval**] - none req.

<http://ehs.whoi.edu/ehs/DesktopDefault.aspx?tabindex=2&tabid=5&itemID=543>

5. Policies: (speed, departure/arrival times, moving aboard, etc)
6. Ship Navigation
7. Communication (voice, fax, e-mail)
8. Equipment
  - a. Cranes ( X )
  - b. Oceanographic winches: Hydro (X), Trawl ( ),
  - c. CTD ( X )
  - d. Air Tuggers ( X )
  - e. Electrical power ( )

## **Logistics [Notes]**

1. Shipping gear to and from vessel?
  - Address for shipping items for Oct 20 San Fran for pre loading into Science Hold.

Shipping address:  
 Master R/V ATLANTIS  
 Attn: Scientist's Name - AT26-23  
 c/o BAE Systems Ship Repair  
 Foot of 20th Street  
 San Francisco, CA 94107

BAE Shipping Office contact:  
Cheri Mendieta, cell (415) 829-0267  
email address: Cheri.Mendieta@baesystems.com

Please contact Eric Benway and copy our agent Vasile Tudoran notifying us of all shipments to BAE

Phone: (562) 882-5590  
Fax: (562) 434-9800  
Email: vtudoran@aol.com

**LABEL EVERYTHING WITH OWNERS NAME AND VOYAGE #AT26-24**

Physical address of ship:  
BAE SHIPYARD.  
BAE Systems Ship Repair  
Foot of 20th Street  
San Francisco, CA 94107

- Need full list of names who will attend pre loading for access list.
- TWIC cards? - Science party & escorting
- Containers -NONE
- Gases -
- Chems -
- Waste removal plans in Costa Rica -
- Isotopes - NONE
- Waste removal plan - n/a
- Mobe will be in Puntarenas Costa Rica Nov 28 & 29.
- Science can move aboard Nov 28.
- DEMOB Dec 12 and 13.
- Science will need to move off Dec 13.
- Shipments from Puntarenas to USA -
- Samples?
- Agent services / dry ice / LN2 / packaging?

## **Post-Cruise:**

1. Actions departing ship. LABELING all items left behind and properly packed.
2. UNOLS cruise evaluation [Chief Scientist & Master] - UNOLS PCA.
3. Reports to foreign government/State Department [required for work in EEZs]- n/a
4. Data delivery [shipboard underway data].
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](#)