

Cruise Planning Questionnaire

Ship: ATLANTIS
Vehicle(s) required: ALVIN
Name of ship for ROV ops: Atlantis
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POC / contact info:

Departure port & date: Puntarenas, Costa Rica Jan. 6
Distance to first station: 130 km

Number of stations: 2

Distance between stations: 60 km

Total days on station: 6

Arrival port & date: Puntarenas Costa Rica Jan 13, 2010
Op area: Costa Rica
Lat/Lon: 8o 55.8'N 84o 18.75'W
Depth range: 700-1900 m

Will the vessel be operating within 200 NM of a foreign country?

Which country?

Are visas or special travel documents required?

Funding agency:
NSF

Specify:

Grant or contract number: OCE 0939557

Science objectives/activities planned:

- Recover colonization experiments on Mound 12 (carbonate, wood, tubeworms, shells). Process these at sea.
- Background collections of wood, active carbonate

(especially dolomite) rock and biotic (mussel, tube) substrates

- Characterization of chemical regimes at colonization sites
- Possible Archaea C fixation/ production experiments with ¹³C or ¹⁵N₂ using background or colonizer fauna
- ALVIN CTD and water sampling at active and inactive seep sites having colonization experiments.

- Coring seep (mat, clam) sediments in specific locations across a range of O₂ levels if time.

- Follow-up collection of new species (including yeti crabs, folliculinid ciliates, mussels, clams, crustaceans, annelids etc)

*collection of microbial mat on rocks

* Revisit Jaco scarp.. sample tubeworm bushes and other fauna

Night Operations:

* Nighttime off seep CTD casts with Rosette to examine ENSO signals and compare to 2009

* Multibeam mapping as needed (pre dive)

As part of the pre-cruise planning procedure, would you prefer (check one or both) a teleconference or or a visit to WHOI ?

WHOI shipboard scientific instrumentation desired:

12 kHz bathymetry system

ADCP - 75 KHz

3.5 kHz bathymetry system

Fume hood

Deionized water system

Refrigerator

CTD/rosette system

Chest freezer (OC and KN only)

Box corer

-70 deg freezer

Walk-in cooler (AT only)

10-liter Niskin bottles

Pinger for wire use

Is nighttime work anticipated on this cruise? Yes

Critical MET sensors:

Critical CTD sensors: oxygen, temp, pressure, fluorescence,

Do you need Seabeam? (AT and KN only) Yes

Long baseline (LBL) transponder navigation? Yes No. of xpndrs/nets: 1 or 2

Ultra-short baseline (USBL) navigation? Yes

Doppler/GPS navigation? Yes

Will you be using portable science vans? No How many:

Science Van #1

Science Van #2

Science Van #3

Type/size

Location

Water

Power

Anticipated standard oceanographic cable use:

	Instruments(s)	Instrument Weight(s)	Maximum Depth
Conducting hydro	CTD		
Steel hydro	plankton net (possibly)		
Steel trawl			
.681" fiber optic			
Do you require slip rings?	Yes	Number of conductors:	
Do you need non-standard wire?	No	If so, what type?	
Do you need a traction winch?	No		

Will you be bringing any equipment (winches, blocks, etc.) that lowers equipment over the side? No

If yes, please provide details:

Will there be special requirements for:

Electrical power	No
Equipment handling	Yes
Inter/intraship communications	No
Science stowage	Yes

If yes to any of the above, please identify: Gear elevator

Will any of the following items be used on board?

Explosive devices	No
Portable air compressors	No
Flammable gases	Yes
Radioisotopes	Yes No
Isotope van	No

Will hazardous material be used aboard, or deployed by an ROV? No

What measures or plans have been made a) in the event of a spill, and b) for the removal and/or disposal of these materials at the completion of the cruise?

Spill kits are on board. All hazardous materials will be stored in the chem van during transits. MSDS forms are on board. Hazardous materials will be removed from the ship when it docks in San Diego

Vehicle equipment required:

Major water samplers

Large capacity slurp samplers Yes

Small capacity slurp samplers Yes

Bio collection boxes Yes

Push corers Yes

Scoop nets Yes

High temperature probe No

Low temperature probe Yes

Heat flow probe Yes

Magnetometer No

Portable CTD Yes

Digital Still Camera Yes

Search Sonar Yes

Profiling Sonar No

Rock Drill (*Jason only*) No

Video Duplication (*Jason*) No

Elevators Yes

Check one or both: ALVIN

Single chamber

12" x 12" x 12"

12" x 12" x 24"

Oriented forward

Other vehicle-related equipment (list):

Additional Bio boxes supplied by PIs

Science equipment to be installed on vehicle:

Electronic equipment used in the ALVIN personnel sphere: none

Other comments and information:

Running seawater required on deck
Walk in cold room and walk in freezer required
Access to 2-3 refrigerators required...
in main lab, chem lab and back (hydro) lab

NOTE: i will need to edit this following comments from co PIs but can't find a save button so I will submit and send revisions later. Unsure about radioisotope van (checking with Orphan)
Lisa

Date Submitted: 10/26/2009 07:07 PM