HOT-87: Chief Scientist Report

Chief Scientist: L. TUPAS

Loading: September 23, 1997	Chief Scientist: Dr. Louie Tupas
Departed: September 24, 1997 at 0900	Master: Captain Thomas Desjardins
Returned: September 26, 1997 at 0800	Resident Technician: Mr. Ron Comer
Vessel: R/V Roger Revelle	Computer Technician: Mr. Jim Charters

1. SCIENCE PERSONNEL

Bazua-Duran, Maria Carmen; University of Hawaii; Graduate Student
Bjorkman, Karin; University of Hawaii; Technician
Carrillo, Christopher; University of Hawaii; Graduate Student
Charters, Jim; UCSD/SIO/STS; Computer Technician
Christensen, Stephanie; University of Hawaii; Technician
Clewes, William; WCTS; Observer
Comer, Ron; UCSD/SIO/STS; Resident Technician
DeMoustier, Christian; UCSD/SIO; Scientist
Donachie, Stuart; University of Hawaii; Scientist
Driscoll, Patrick; University of Hawaii; Technician
Fujieki, Lance; University of Hawaii; Technician
Hebel, Dale; University of Hawaii; Scientist
Hochberg, Eric; University of Hawaii; Graduate Student
Houlihan, Terrence; University of Hawaii; Technician
Karl, David; University of Hawaii; Scientist
Karner, Markus; University of Hawaii; Scientist
Kelly, Kevin; University of Hawaii; Graduate Student
Landry, Michael; University of Hawaii; Scientist
Liebeler, Jennifer; University of Hawaii; Graduate Student
Magaard, Ursula; University of Hawaii; Technician
Measures, Christopher; University of Hawaii; Scientist
Nolla, Hector; University of Hawaii; Technician
Nosse, Craig; University of Hawaii; Technician
Ramm, Hans; University of Hawaii; Technician
Robinson, Donna; Hawaii Pacific University; Undergraduate Student
Sadler, Daniel; University of Hawaii; Technician
Santiago-Mandujano, Fernando; University of Hawaii; Scientist
Scheinberg, Rebecca; University of Hawaii; Graduate Student
Silver, Mark; UCSD/SIO/STS; Computer Technician
Staff, Arthur; SeaBeam; Technician
Stump, Charles; University of Washington; Scientist
Shackelford, Rachel; University of Hawaii; Undergraduate Student
Tupas, Luis; University of Hawaii; Chief Scientist
Vink, Suzanna; University of Hawaii; Scientist
Wright, Don; University of Hawaii; Technician

2. GENERAL SUMMARY

All objectives for this abbreviated cruise were accomplished. All planned stations were occupied and all core samples were taken. All samples for ancillary projects were taken. Floating sediment trap array

was deployed with some difficulty but was recovered successfully. ADCP measurements were made throughout the cruise. The pCO2 systems of Chris Winn (Pat Driscoll operating) and Dave Karl (Chris Carrillo operating) were installed and worked using the ships uncontaminated seawater intake system. The Revelle's thermosalinograph was also used.

3. R/V Roger Revelle, Officers, Crew and Technical support

The crew and technical support personnel of the R/V Roger Revelle contributed greatly to the success of this intense cruise. They showed concern for our work and were very flexible in receiving changes in our operational schedule. Technical support during this cruise was excellent. Support personnel were available at any time to assist in our work and made things much easier for us. We especially like to thank the chief mate who freed our array from the ships propellers.

4. DAILY REPORT OF ACTIVITIES

September 23, 1997; Loading Day

All deck and lab equipment were moved from either SNUG Harbor labs or UH on this day. All electrical and electronic connections were made for the CTD and the lab vans. All lab equipment were stowed away and secured. All laboratory instruments were tested and appeared functioning. No major problems were encountered.

September 24, 1997

Scientists arrived on ship by 2300 the previous day. Ship departed at 0045 after all scientists and equipment arrived. Ship arrived at Kahe Station at 0345 and proceeded with a weight cast to 1000 meters. A 1000 meter CTD cast was made at 0545, however, a problem, with the firing of the sampling bottles was encountered and the cast was aborted. Package was brought back on deck and the ship departed Kahe Station. The trace-metal tow-fish of Chris measures was deployed and towed at the ship steamed towards to Station ALOHA. The CTD problem was solved before arrival at ALOHA. On the way to Station ALOHA, a series of test were conducted for the ships Sea- Beam. Fire and emergency drills conducted at 1300 followed by a safety briefing by the first mate and a short science meeting. Ship arrived on Station at 1800 and the first CTD cast was made at 1900. CTD casts were made at 3-hour intervals. Net tows were conducted in the evening.

September 25, 1997

Go-Flo cast was made at 0230 and the primary production experiment was prepared. It was later found that the wrong floats were brought on this cruise. Replacement floats were used and the sediment trap line was converted to accommodate the primary production buoy. The array was deployed at 0500 however the array drifted under the ship, got entangled with the rudder and propellers and had to be cut loose. The array was finally adrift at 0700.

CTD casts continued at 3-hour intervals. Net tows were conducted at noon. The array was retrieved at 1900. After retrieval the ship proceeded to HALE ALOHA. CTD cast was conducted at 2100 and completed at 2200. Ship then transited to Snug Harbor.

September 26, 1997

Arrived at Snug Harbor at 0700. Proceeded with unloading , completed at 1100.

5. OTHER WORK DONE AT-SEA

1. Phosphorus experiments by Bjorkman and Thomson.
2. Leucine experiments by Karl
3. Plankton sampling by student and Landry
4. Micropankton Ecology class by Karl and Landry
5. Sea-time for Hochberg and Robinson
6. Sea-Beam testing by DeMoustier and Staff
7. Lab set-up by Landry and Nolla
8. Lab set-up by Measures and Vink
9. Microbial experiments by Donachie, Karner and Shackelford
10. Gas sampling by Stump
11. pCO2 comparison by Driscoll and Carrillo

6. SAMPLES TAKEN FOR OTHER INVESTIGATORS

1. DIC water samples for C.D. Keeling, SIO-UCSD
2. DIC water samples for P. Quay, UW
3. Seawater for E. Laws