HOT-113: Chief Scientist Report

Chief Scientist: L. TUPAS

Vessel: R/V Ka'Imikai O' Kanaloa
Loading: March 24, 2000
Departed: March 27, 2000 at 0900
Returned: March 30, 2000 at 1700

Chief Scientist: Dr. Louie Tupas
Master: Captain Robert Hayes
Deck Operations: Mr. Dave Gravatt
Electronics Technician: Mr. Will Hervig

1. SCIENCE PERSONNEL

Luis Tupas - UH, scientist
Dale Hebel - UH, scientist
Karin Bjorkman - UH, scientist
Terry Houlihan - UH, research associate
Lance Fujieki - UH, computer specialist
Dan Sadler - UH, research associate
Don Wright - UH, research associate
Fernando Santiago-Mandujano - UH, research associate
Mark Valenciano - UH, marine technician
Colleen Allen - UH, research associate
Tom Gregory - UH, research associate
Jeremiah Johnson - UH, research associate
Michelle Eich - UH, graduate assistant
Lal Ratnapala - UH, graduate assistant
Matt Church - VIMS, visiting graduate student
Albert Coleman - Yale, visiting graduate student
Regina Bruhn - Baltic Sea Research Institute, scientist

2. GENERAL SUMMARY

All objectives of the JGOFS and WOCE programs were. All planned stations were occupied. Weather and sea conditions were rough but within limits of safety for deck operations. All core samples were taken and the 36 hour CTD burst sampling period was not interrupted. All samples for ancillary projects were taken. Guest scientists and students were able to accomplish their work. Floating sediment trap array and primary production array deployed and recovered successfully. No samples were lost during the in-situ incubations. ADCP measurements were made throughout the cruise. There was no HALE ALOHA station because the mooring has not yet been deployed.

3. R/V Ka Imikai O Kanaloa, OFFICERS AND CREW, TECHNICAL SUPPORT

Ship's crew gave excellent support and showed enthusiasm and concern for our work and were very flexible in receiving changes in our operational schedule and logistical support. Technical support during this cruise was excellent. STAG personnel were available at any time to

assist in our work and made things much easier for us. During the cruise, email was not reliable but the skyphone made it possible for us to retrieve the satellite positions of the sediment trap.

4. DAILY REPORT OF ACTIVITIES

March 24, 2000; Loading Day

The ship's main deck was configured for HOT equipment. The main lab van and the rope winch were secured inside the submarine hangar. The equipment van and second radiation van were secured on the O-2 deck. All deck and lab equipment were loaded and secured within the ship's labs. All electrical and electronic connections were made for the CTD. All other equipment and containers were stowed away and secured. All laboratory instruments were tested and appeared functioning. No problems were encountered.

March 27, 2000

We departed Snug Harbor at 0900. Fire and abandon ship drills were held at around 0930. We arrived at Station Kahe at 1130. Upon arrival the PRR was deployed and retrieved. The TSRB was not functioning. Attempts were made to repair it on-board ship. CTD cast started at 1300. Work at Station Kahe was accomplished by 1600 and the ship proceeded to Station ALOHA.

March 28, 2000

Ship arrived at Station ALOHA at 0100. Two net tows were successfully completed. Floating sediment traps were successfully deployed at 0200. The deep CTD cast was made at around 0400 and the burst series commenced at 0900. Regina Bruhn commenced with hose pumping at the beginning of the deep cast. Pumping was done as often as possible while the ship was not maneuvering. Net tows and the light casts were accomplished around noon and night. TSRB was still not working.

March 29, 2000

Work continues as scheduled. Net tows conducted at 0100. Go-Flo cast commenced at 0200 with some difficulty. The morning shift completed the water sampling. Primary production experiment made from Go-Flo cast and CTD rosette water. Matt Church and Karin Bjorkman added incubation samples to the array. Primary production experiment was deployed without incident at 0500. At noon we did optical measurements as scheduled for the satellite overflight times at Station ALOHA. Net tows successful. Primary production experiment retrieved at 1900 and all samples processed shortly after. CTD casts continue at 3 hour intervals.

March 30, 2000

Work has been proceeding as scheduled without any problems. Second WOCE deep cast started at 0000 and completed at 0400. We received the ARGOS positions by email. We had planned to remain on station until 0600 for Regina Bruhn to complete her pump sampling. She lost her hose at around

0400 and she terminated her pumping then. She continued to collect water samples using the clean seawater intake system. Ship proceeded to the trap location and traps retrieved at 0700. Ship then proceeded to Honolulu. We arrived at Snug Harbor at 1700.

March 31, 2000; Unloading

Unloading commenced and completed at 1200.

SAMPLES TAKEN FOR OTHER INVESTIGATORS

1. DIC water samples for Charles Keeling, SIO-UCSD
2. DIC water samples for Paul Quay, UW
3. Seawater for Ted Walsh, UH
4. Phosphorus experiments by Karin Bjorkman, UH
5. Aerosol and ozone measurements for J. Porter by Jeremiah Johnson, UH
6. Microbial sampling and experiment by Matt Church, UH
7. Phosphorus sampling by Albert Coleman, Yale
8. Phosphorus sampling Claudia Benitez-Nelson by Tom Gregory, UH
9. PCB sampling by Regina Bruhn, Baltic Sea Res. Inst.