HOT-110: Chief Scientist Report

Chief Scientist: L. TUPAS

Vessel: R/V Ka'Imikai O' Kanaloa
Loading: December 10, 1999
Departed: December 13, 1999 at 0900
Returned: December 17, 1999 at 0800

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

1. SCIENCE PERSONNEL

Luis Tupas - UH, scientist
Dale Hebel - UH, scientist
Lance Fujieki - UH, computer specialist
Dan Sadler - UH, research associate
Ursula Magaard- UH, research associate
Craig Nosse - UH, research associate
Don Wright - UH, research associate
Fernando Santiago-Mandujano - UH, research associate
Mark Valenciano - UH, marine technician
Colleen Allen - UH, research associate
Claudia Benitez-Nelson - UH, scientist
Tom Gregory - UH, research associate

2. GENERAL SUMMARY

All objectives of the JGOFS and WOCE programs were. All planned stations were occupied. Weather and sea conditions were moderate to 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. 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. While at Station HALE ALOHA, the guardian buoy beacon was replaced with a boat operation.

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.

4. DAILY REPORT OF ACTIVITIES

December 10, 1999; 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.

December 13, 1999

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 and TSRB were deployed and retrieved. CTD cast started at 1300. Work at Station Kahe was accomplished by 1600 and the ship proceeded to Station ALOHA.

December 14, 1999

Ship arrived at Station ALOHA at 0100. Floating sediment traps were successfully deployed. The deep CTD cast was made at around 0400 and the burst series commenced at 0900. Net tows and the light casts were accomplished around noon.

December 15, 1999

Work continues as scheduled. Go-Flo cast at 0200 with some difficulty. Primary production experiment made from Go-Flo cast water. Primary production experiment was deployed without incident at 0500. At noon we did optical and atmospheric measurements as scheduled 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.

December 16, 1999

Work has been proceeding as scheduled without any problems. Second WOCE deep cast started at 0400 and completed at 0800. We received the ARGOS positions by email. Ship proceeded to the trap location and traps retrieved at 1100. Ship then proceeded to HALE ALOHA. Arrived at HALE ALOHA at 1500. Boat operations were conducted to replace the beacon on the guardian buoy. CTD cast started at 1700 together with trace metal sampling. Departed HALE ALOHA at 2000.

December 17, 1999

We arrived at Snug Harbor at 0800. Unloading commenced immediately 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 Ed Laws, UH
4. Phosphorus experiments by Karin Bjorkman, UH
5. Aerosol and ozone measurements for J. Porter, UH
6. Seawater for Ted Walsh, UH
7. N2O samples for Brian Popp, UH