

Chief Scientist: L. TUPAS

Loading: May 7, 1999
Departed: May 8, 1999 at 0900
Returned: May 13, 1999 at 0800
Vessel: R/V Moana Wave
Steve Poulos

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

1. SCIENCE PERSONNEL

Luis Tupas - UH, JGOFS
Dale Hebel UH JGOFS
Karin Bjorkman - UH, JGOFS
Lance Fujieki - UH, JGOFS
Terry Houlihan UH JGOFS
Dan Sadler - UH, JGOFS
Craig Nosse - UH, WOCE
Don Wright - UH, WOCE
Fernando Santiago Mandujano - UH, WOCE
Mark Valenciano UH, WOCE
John DeVilbiss HPU undergraduate
Albert Calbet - UH, Scientist
Claudia Benitez-Nelson UH, Scientist
Rebecca Scheinberg UH Graduate Student
Ed Boyle MIT Scientist
Rick Kayser MIT Scientist

2. GENERAL SUMMARY

All objectives of the JGOFS and WOCE programs were accomplished. 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. Samples for trace metals were taken by MIT researchers using their sampling device attached to the CTD wire. The HALE ALOHA mooring was successfully recovered.

3. R/V MOANA WAVE, OFFICERS AND CREW, TECHNICAL SUPPORT

This was the last HOT core cruise on the R/V Moana Wave. This provided us the longest and best support for our work. The officers and crew have always been very helpful and accommodating. They showed enthusiasm and concern for our work and were very flexible in receiving changes in our operational schedule. Technical support during this and all past cruises was excellent. STAG personnel were available at any time to assist in our work and made things much easier for us. We are deeply saddened by the retirement of this still excellent vessel.

4. DAILY REPORT OF ACTIVITIES

May 7, 1999; Loading Day

We did a full on-load for this cruise. The ships main deck was configured for HOT equipment including the new mooring winch. All deck and lab equipment were loaded and secured within the ships 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. All o-rings on sampling bottles now made of silicon.

May 8, 1999

We departed from Snug Harbor at 0900 as scheduled without any problems. Fire and emergency drills conducted at 0930 followed by a safety briefing by the first mate and a short science meeting. Arrived at Station Kahe at 1200 and conducted the weight cast to 1000 m and the PRR/TSRB casts. A CTD cast to 1000 meters was made. Aerosol and ozone measurements were made. All samples were taken and we departed for Station ALOHA at 1600. Seas and weather rough.

May 9, 1999

After a really rough transit we arrived at Station ALOHA circle shortly after 0000 and commenced work with a net tow and then deployed the floating sediment traps. The deep cast started at 0300. The 3-hour burst sampling started at 0900. CTD casts at 3-hour intervals were conducted without interruption. Seas still rough. Conducted optical casts and atmospheric measurements near during SeaWIFs overpass. Net tows conducted at noon.

May 10, 1999

Work continues according to schedule without any problems. Go-Flo cast at 0200 with some difficulty. Primary production experiment made from Go-Flo cast water. Comparison experiment was made from 5 and 25 meter water from CTD cast. 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. Last cast ended at midnight.

March 11, 1999

We have been receiving ARGOS positions for the sediment trap array. They have not traveled far, only 14 miles. Work has been proceeding as scheduled without any problems. Second WOCE deep cast started at 0300 and completed at 0700. After last cast, the CTD package was disconnected and the MIT sampler was attached to the cable. The MITESS cast started at 0700 and completed at 1100. Ship proceeded to the trap location and traps retrieved at 1400. Ship then proceeded to HALE ALOHA. Arrived at HALE ALOHA at 1600. We had a barbecue cookout on the deck for dinner. Conducted trace metal sampling with MITESS at 1800 and completed at 0100 on May 10.

May 12, 1999

The CTD cast at HALE ALOHA was conducted at 0500. Communication with the acoustic releases started at 0730. Mooring released at 0800. Recovery operations started at 0830. The whole mooring was on-board by 1300. We started the transit to Snug by 1400.

March 13, 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