HOT-89: Chief Scientist Report

Chief Scientist: L. TUPAS

Hawaii Ocean Time-series
HOT-89 Chief Scientist's Report

Loading: January 8, 1998
Departed: January 9, 1998 at 0900
Returned: June 13, 1998 at 0000
Vessel: R/V Moana Wave

Chief Scientist: Dr. Louie Tupas
Master: Captain John Stahl
Deck Operations: Mr. Dave Gravett
Electronics Technician: Ms. Sharon Stahl

1. SCIENCE PERSONNEL

Luis Tupas - UH, JGOFS
Dale Hebel - UH, JGOFS
Ursula Magaard - UH, JGOFS
Lance Fujieki - UH, JGOFS
Pat Driscoll - UH, JGOFS
Karen Selph - UH, JGOFS
Dan Sadler - UH, JGOFS
Hans Ramm - UH, WOCE
Craig Nosse - UH, WOCE
Don Wright - UH, WOCE
Fernando Santiago Mandujano - UH, WOCE
Mark Valenciao - UH WOCE
Mai Lopez - SIO
Markus Karner - UH, Post-Doc
Craig Motell - UH, Technican
Kyle Margenau - HPU, Undergrad
Donna Robinson - HPU, Undergrad

2. GENERAL SUMMARY

All objectives of the JGOFS and WOCE programs were accomplished. All planned stations were occupied. 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. The pCO2 system was operated using the ships uncontaminated seawater intake system. The optical plankton counter did not function despite several attempts to troubleshoot and repair the instrument. OPC work was abandoned and the schedule of work moved up by about 6 hours. Transit to Snug began at about 1600 on 12 January and cruising speed was increased to arrive at Snug by 0000 on 13 January. Unloading commenced after early breakfast.

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

The R/V Moana Wave continues to maintain the excellent ship support for our work. The officers and crew were most 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 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

January 8, 1998; 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 OPC. All lab equipment were stowed away and secured. All laboratory instruments were tested and appeared functioning. No problems were encountered.

January 9, 1998

Scientists arrived on ship by 0830. Ship departed at 0900 after all scientists and equipment arrived. 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. Conducted weight cast followed by a light cast using the Profiling Reflectance Refractometer (PRR) and the Tethered Spectral Radiometric Buoy (TSRB). A 1000 m CTD cast completed the operations. Started transit to Station ALOHA at 1600 following a depth contour of about 500 meters for ADCP bottom tracking. Uncontaminated seawater system was run and the pCO2 system was connected and operated. Transit to Station ALOHA and arrived at 0000. A net tow was made upon arrival at Station ALOHA.

January 10, 1998

Floating sediment trap array deployment began at 0100 and accomplished at 0200. Twelve traps were deployed at 150 meters. 3 traps were deployed at 165 meters. After deployment, the ship transited to center of station and commenced the WOCE deep cast at 0230. Cast was completed at 0600. CTD burst sampling commenced at 0800 and maintained at 3 hour intervals. Zooplankton tows at noon successful. PRR and TSRB cast was made during the SeaWiFS flyover time.

January 11, 1998

CTD casts continued at 3 hour intervals. Go-Flo cast conducted at 0130. Primary production array deployment commenced at 0500. CTD casts continued at 0520 continuing at 3 hour intervals. Zooplankton tows conducted at noon. PRR cast at 1230. Retrieval of primary production array commenced at 1900. No samples were lost. CTD casts continued at 3 hour intervals. Last 1000 meter cast conducted at 2000. Transit outside the circle to pump tanks at 2130 and return for OPC towing at 2200.

January 12, 1998

OPC instruments not functioning despite several attempts to trouble shoot. Towing aborted at 0800 and began transit to sediment trap retrieval site. Retrieval started at 0900, completed at 1100. All sediment traps were retrieved undamaged and the whole array was safely and successfully retrieved. Transit to HALE ALOHA. Cast started at 1300 and completed at 1430. Transit to Honolulu at 1500.

January 13, 1998

Arrived at Snug Harbor at 0000. Unloading commenced at 0700, completed at 1100.

SAMPLES TAKEN FOR OTHER INVESTIGATORS

1. DIC water samples for C.D. Keeling, SIO-UCSD
2. DIC water samples for P. Quay, UW
3. Particulate samples for Jon Zehr, RPI
4. Seawater for E. Laws, UH