HOT-39: Chief Scientist Report

Chief Scientist: C. WINN

HOT-39 Cruise Report
R/V Moana Wave
August 3 - 8, 1992

Report Summary:

The schedule was unique on this cruise. We loaded the morning of the 3rd and departed that afternoon. All of the standard WOCE and GOFS work was completed, and we visited station three for the oxygen sensor deep cast. However, due to a problem with the CTD wire block, we were unable to complete the planned CTD section from ALOHA to Kaena Point.

Cruise Report

We loaded the ship on the morning of the 3rd, and we departed snug Harbor at 17:00. The pylon was changed enroute to Kahe Point because the one mounted in the rosette was firing incorrectly. We arrived at Kahe Point at 20:00. A test cast was done. Prior to the standard CTD cast several errors observed while the CTD was on deck forced us to check the connections before deploying the CTD. This caused some delay in our work at Kahe Point, and did not completely eliminate this problem. We departed Kahe at approximately 00:30.

ADCP turned on when we left Snug and was left on for the duration of the cruise. Bottom tracking was turned on during both transits along the Waianae Coast.

The traps were deployed upon arrival at Aloha at approximately 10:00. The CTD cable was re-terminated during the sediment trap deployment. The 36 hour burst CTD sampling was initiated at approximately 12:00. The first cast to 1000 decibars was compromised by valves left open on the sampling bottles and an unusually high number of errors continued to be observed in the CTD traces. The standard GOFS sampling which is conducted at night and was planned for the evening of the 4th had to be postponed because of a broken air conditioner in the wet and dry lab spaces. These spaces rapidly became much too hot to conduct our standard chemical analyses, and these casts were postponed until the night of the 5th. The GOFS Go-Flo cast was completed on schedule early on the 5th without problems. The WOCE deep and shallow casts were done starting about 0900 on the morning of the 5th. The remained of our standard sampling was completed on schedule. The hydrocast at station three and the sediment trap recovery were also completed without incident.

The transmissometer which we have been in routine use on the HOT program was compared to a new instrument supplied by Sea Tech. The HOT program transmissometer continued to display anomalous behavior at depths greater than 400 m whereas the new instrument did not.

There were several unusual problems with the CTD/rosette on this cruise. Three sampling bottles were lost during cast 7. From debris left on the top some bottles it appears that the rosette collided with the ship hull. However, this collision was not observed during deployment or recovery by either the science party or the winch operator who now stands directly above the A-frame on the Moana Wave. In addition, a problem developed with the pylon on positions 3. The use of that position was discontinued for the remainder of the cruise.

Following the recovery of the sediment trap array, the first of CTD transect casts was begun. During deployment the CTD cable broken when the cable was caught in the block. Following re-termination the CTD cable was again caught in the block when slack in the cable was being removed. The block was removed from the A-frame and one of the cheeks was found to be bent. The ship's engineers attempted to repair the block. However, it was not possible to repair the block completely, and CTD operations were suspended. We then attempted to collect an XBT transect along 158 degrees West to Kahuku Point. However, the XBT's were not working properly and transect was abandoned. We Arrived at Snug Harbor at 07:30 on the 8th.

HOT-39 Personnel

Chris Winn	Chief Scientist
Rich Muller	UH Technician
Christopher Carrillo	UH Technician
Ricardo Letelier	UH Student
Hongbin Liu	UH Student
Jim Christain	UH Student
Elaine Kotler	UH Student
Sophia Asghar	UH Student
Dan Sadler	UH Student
Sean Kennan	UH Student
Reka Domokos	UH Student
Yimei Zhou	UH Student
David Wilbur	UW Technician
Jennifer Wilcox	undergraduate Student

Iternary (local Times)

8/3/92	1700	Depart Snug Harbor
	2000	Arrive Kahe Point
8/4/92	1000	Deploy sediment traps
	1200	begin 36 hour CTD burst sampling
8/5/92	0200	GoFlo Cast
	0500	Deploy primary production array
	0900	WOCE deep cast
	1800	recover primary production array

8/6/92	1700	end 36 hour burst sampling begin transit to station 3
	2100	station 3 deep cast
8/7/92	0100	end station 3 cast begin transit to sediment traps
	0600	CTD cable broken in block
	0900	recover sediment traps
	1230	begin transit to Snug
8/8/92	0730	arrive at Snug Harbor