

HOT-15: Chief Scientist Report

Chief Scientist: C. WINN

HOT-15 Cruise Report

SSP Kaimalino

17-21 Mar. 1990

Personnel List:

Chris Winn	CS
Ricardo Letelier	GOFs
Dale Hebel	GOFs
John Dore	GOFs
Kare Selph	GOFs
Steve Chiswell	WOCE
Stewart Reid	WOCE
Max Cremer	WOCE
Jef Snyder	WOCE
Marc Rosen	GOFs/WOCE
David Wilbur	U.W. Oxygen

Itinerary (approximate local time):

13 Mar.

- 0430 Depart Snug Harbor
- 0800 Arrive Kahe Pt
- 1100 Depart Kahe Pt

14 Mar.

- 0000 Arrive HOT-site: deploy sediment traps
- 0200 Commence water sampling (Primary productivity cast)
- 0600 deploy in situ array
- 0700 WOCE deep casts 4500m
- 1000 WOCE cast 2500m
 - including: on days 1, 2 and 3
- 1800 recover in situ array
- 0200 Primary productivity cast
- 0600 Deploy in situ primary production array
- 1800 recover in situ array
- 2000 Locate traps

17 Mar.

- 0000 recover traps
- 0200 depart for Snug Harbor
- 2000 Arrive Snug Harbor

Narrative:

This cruise left Snug Harbor on the SSP Kaimalino at 0800 on 14 March 1990. Samples were collected at Kahe Point, but rough seas encountered upon rounding the northeast end of Oahu forced the ship to return to Snug Harbor to wait for calmer weather.

A second leg left Snug Harbor on 18 March 1990 after local weather conditions became more favorable. Rough seas were not a problem on this second trip, and the Kahe Point station was not revisited on this leg. HOT-15 returned to Snug Harbor on 21 March 1990.

WOCE & JGOFS Sampling

All sampling was completed on HOT-15.

CTD and XBT Operations

The CTD cable needed to be reterminated once during this cruise. This required about 5 hours of station time and produced a gap of about 6 hours in the WOCE CTD burst sampling. Oxygen sensor problems prevented the collection of continuous oxygen profiles on this cruise. NO XBTs were deployed on this cruise.

Primary Production and Sediment Trap Measurements

In addition to the standard 12-hour in situ measurement of primary production using Go-Flo bottles, in situ primary production was also measured on water samples collected with the PVC bottles mounted on the rosette system. Comparisons of primary production estimates taken from rosette sampling and Go-Flo bottles were obtained on three separate 12-hour in situ incubation experiments. No 24-hour or on-deck incubations were conducted on this cruise.

Optical Measurements

Optical casts were completed at Kahe Point.

Ancillary projects

Samples for dissolved gases were obtained for Charles Keeling of Scripps and for Steve Emerson and Paul Quay of the University of Washington. Samples for dissolved DNA were collected by Karen Selph (U. Hawaii).