

September 23, 1999 F/SWC2:FAP:FLF
CR9909II-2.FAP

CRUISE REPORT

VESSEL: *Townsend Cromwell*, Cruise 99-09 Leg II (TC-247)

CRUISE PERIOD: 30 August-7 September 1999

AREA OF OPERATION: Oahu and Northwestern Hawaiian Islands (Fig. 1)

TYPE OF OPERATION: Conducted surveys of shallow reefs on the Islands of Kaula Rock, Nihoa, and FFS.

ITINERARY:

30 August	Embarked Raymond Boland, Rusty Brainard, Michael Parke, Frank Parrish, and Michael Sawyer and departed for Kaula Rock at 1600.
31 August	Conducted dive operations and collected P-coded GPS positions around Kaula Rock. Departed in the evening hours for FFS via Nihoa Island.
2 September	Arrived FFS. Set traps, unloaded fuel, and conducted diver surveys.
3 September	Conducted dives, collected GPS positions, pulled traps, and departed FFS for Nihoa.
5 September	Conducted shallow dive surveys at Nihoa, collected GPS positions, and transited to Kaula Rock.
6 September	Conducted shallow dives at Kaula and transited to Honolulu.
7 September	Arrived Honolulu; all disembarked. End of cruise.

MISSIONS AND RESULTS:

- A. Make a descriptive survey of shallow coral reefs at the Islands of Kaula and Nihoa.

Seven dives (three sled tows: two Nihoa, one Kaula) and four drop dives (two Nihoa, two Kaula) were made at five sites (three at Kaula, two at Nihoa). Divers noted changes in a real coral cover and compiled a species diversity list.

- B. Make a collection of oceanographic data.

A single CTD deployment was done at standardized stations located south of Nihoa, Necker, and FFS. XBTs were dropped every 20 miles while the ship was underway during the second leg of the cruise.

- C. Make a collection of P-coded GPS positions of island landmarks for Kaula Rock, Nihoa, and FFS.

P-coded GPS positions of island landmarks for Kaula Rock, Nihoa, and FFS were collected to correct available and future imagery for GIS applications.

SCIENTIFIC**PERSONNEL:**

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Attachment