HAWAII UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT MISSION NO. P5-290

MISSION STATUS

Location: Submarine north flank of Molokai

Mission Date: Aug. 31, 1996

Maximum Depth: ~960 m

Project Title: Extent and depth of landsliding, north flank of Molokai

Principal Investigator: Robin T. Holcomb

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Scientific Data Acquired : Prepare an abstract outlining your objectives, techniques, findings, etc.

The primary objective of this dive was to collect magnetometer data in a north - south traverse in the 156°51' canyon. We believe that this canyon may contain caldera fill which has a "reversed" magnetic polarity. Thus we attempted to identify the boundary between caldera and flanks in this canyon.

Related to the first objective, our second objective was to collect rock samples at the beginning and end of the magnetic traverse. The purpose of this objective was to collect samples inside and outside caldera to correlate to magnetic results.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

In the processing of the magnetometer data from the two previous dives, we found that the magnetometer readings are extremely sensitive to the sub's heading. This is an expected result; however, we found it difficult to adequately correct during course changes since the course is not being logged with the magnetometer data.

Recommendations for corrective action or improvement:

For the purposes of this cruise and each individual mission we have adapted our magnetometer survey to minimize course variations. I would recommend the development of a system which also logs course and depth (or altitude) in addition to the magnetometer data in the *Pisces V*.

In your opinion, did the mission essentially achieve its purpose? Compare actual work accomplished with the work that was expected to be accomplished.

Given the limitations of the magnetometer's correlation to sub course, I believe the mission was success. Usable magnetometer data was collected in a relative constant - heading reference frame, and samples were taken. Both first and second objectives were thus fulfilled.

List specimens or samples collected on the mission.

PV290-1 basalt
PV290-2 basalt
PV290-3 basalt
PV290-4 basalt
PV290-5 basalt

DATA RELEASE

Data may be retained by the project leader for up to 2 years after the mission date with the following exception. NOAA may request to use photos for publication or publicity purposes at any time.

Fill in the appropriate statement below and sign this form.

I hereby release the data archived by HURL for public consumption following mission

Extent and depth of landsliding, north flank of Molokai (project title)

held on August 31, 1996 (date) in the following way:

a. CTD data by 9-30-96 (date) (none collected)

b. voice transcripts, video, and still camera film by 9-30-97 (date)

c. other 9-30-97 (date)

d. I will give my written consent to individuals wishing to use these data prior to the above dates depending on the nature of the request(s).

Robin T. Holcomb Principal Investigator