HAWAII UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT MISSION NO. P5-291

MISSION STATUS

Location: Submarine north flank of Molokai (east side of Papalaua Canyon)

Mission Date: September 1, 1996

Maximum Depth: ~1810 m

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

Principal Investigator: Robin T. Holcomb

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Observer 1: Port: Robin Holcomb

Address: same

Observer 2: Stbd: Bruce Nelson

Address: Geological Sci. Dept.
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Scientific Data Acquired : Prepare an abstract outlining your objectives, techniques, findings, etc.

Principal objective was to collect *in-situ* samples from lava flows exposed in the high eastern wall of Papalaua Canyon. Secondary objectives were to recalibrate, or check the calibration, of our 2-component magnetometer, and to reconnoiter the nature of stratigraphic units near or on the floor of the valley and on the crest of the ridge bounding the valley to the east. We ran a zigzag traverse up the east valley wall to near the crest of the ridge, observing the various outcrops and collecting samples from some outcrops as we went. We found 4 basic rock types: columnar basalts, other basalts that appeared to consist mostly of subaerial pahoehoe, bouldery conglomerate, and partially indurated but friable mudstones and siltstones. Stratigraphic relationships between these units were not entirely clear but seem generally consistent with observations from previous dives.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

None. This was a good dive that proceeded quite well. We were especially happy with the navigation, feeling satisfied that we knew our location at all times with respect to available SeaBeam bathymetry.

Recommendations for corrective action or improvement:

None

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

Yes, we achieved all of the objectives set for the dive prior to its commencement. It might be appropriate to say here, however, that we are finding 2 unexpected phenomena that are interfering with the overall objectives of our proposal. Our proposal was aimed at the nature of stratigraphic units of basalt in the north flank of the East Molokai shield, but it appears that these units may be partially obscured by 1) intra-canyon basalts of the post-erosional (Kalaupapa) series, and 2) a thick sedimentary cap of unknown origin and thickness.

List specimens or samples collected on the mission.

PV291-1 to PV291-3: basalt
PV291-4: sediment
PV291-5 to PV291-11: basalt
PV291-12 to PV291-13: sediment

Dive P5-291

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 September 1, 1996 (date) in the following way:

a. CTD data by 8-30-96 (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