

HAWAII UNDERSEA RESEARCH LABORATORY
QUICK LOOK REPORT MISSION NO. P5-059

MISSION STATUS

Location: Alenuihaha Channel, Kohala Slope

Mission Date: 14 May 1988

Maximum Depth: 1340 m

Project Title: Hawaii Deep Water Cable Route Survey, Phase II-D

Project Leader: Dr. Alexander Malahoff

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Makai Ocean Engineering

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

Object: Survey proposed cable route on Kohala slope from 1300 m - 950 m top of slope break. Investigate surface roughness particularly between "rock structures" inferred from side scan data. Note major obstacles and geologic features of interest for survey purposes.

Techniques used: Relatively precise subsurface navigation with Edo Western micro-nav tracking system and Datasonics bottom transponder long-baseline system.

- Findings:
- 1) "Rock structure" to the east of proposed cable route appear to be a series of incised channels tending down dip perpendicular to slope face.
 - 2) Rough feature below slope break seems to correlate to reef terrace with base at 1015 m extending upwards past slope break at approximately 930 m.
 - 3) Slope break appears to swell and dip at top but not continuous laterally. Not as sharp and regular as depicted in bathymetry chart.
 - 4) Potential problem for cable near base of reef terrace where there appears to be a field of large rounded boulders up to 5 m in diameter. They seem to have been concentrated due to exsolution of calcium carbonate reef material around them. Need to investigate further the lateral extent of this boulder field.
 - 5) Rough feature to east of proposed route south of the slope break was investigated and appears to be a lava flow, probably shallow submarine, as overlies coral rock and sample taken is vesicular.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

None noted.

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, mission was successful. Objectives of this particular dive were met.

List specimens or samples collected on the mission.

880514-59001; reef rock 1015 m, base of reef terrace.

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 "HDWC ROUTE SURVEY"
(project title) held on 14 MAY 1988 (date) in the following way:

- a. CTD data by May 1989 (date)
- b. voice transcripts, video, and still camera film by MAY 1989 (date)
- c. other MAY 1989 (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).



Project Leader