

**Hawaii Mapping Research Group (HMRG) Future
&
Working Group on Sidescan and Multibeam Sonar Mapping of Deep Seafloor
Terrains: Current Capabilities, Technologies and Future Needs for the US
Academic Community
D. Fornari (WHOI) - June 2009 DESSC Meeting**

HMRG Status and Ongoing Operations

A. Shor reported at Fall 2008 AGU DESSC –

2008 HMRG vehicle schedule was extensive with numerous field programs for academia and commercial groups. The two commercial contracts that were supported, took a heavy toll on equipment as well as the people.

IMI-30 suffered damage to its transducers, and that was the primary reason the Lizarralde/Soule Gulf of California NSF project was delayed a year. The transducers are being rebuilt, and are expected to be ready for testing next month. The upcoming Gulf of Calif. Program is scheduled on R/V *Atlantis* for mid-October to early Nov.

- MR1 also suffered major damage to the tow vehicle. It is anticipated that its future operation will probably require a new vehicle due to the frame damage suffered, although the transducers and electronics appear to be ok.
- HMRG will deal with this once upcoming schedules are clarified based on what proposals get funded.
- DSL-120 is in good shape, though we do need to duplicate boards that are shared between IMI-30 and DSL-120 before sending both systems to sea simultaneously.
- 4 Proposals to use HMRG sonar vehicles were submitted to the NSF MGG and OPP programs, and one additional proposal will be submitted to MARGINS program in July. 1 is known to have been recommended for funding (Harpp –MR1 use, Galapagos).
- NSF views on HMRG Facility funding into the future and various options to consider.

Working Group on Sidescan and Multibeam Sonar Mapping...

● A group of scientists have organized to produce a white paper to ensure that US oceanographers have ready, cost-effective access to the latest sidescan sonar mapping technologies in order to produce state-of-the-art seafloor maps over a wide depth range and with the highest resolution possible. NSF and UNOLS are aware of this effort and are supportive of the objectives.

● The objective is to review current sidescan sonar technology and new multibeam systems with sidescan capabilities, the availability of systems with different frequency, resolution & swath width characteristics, status of various vehicle systems and operational groups used to acquire and process sonar data for science users. Recommendations will be developed in a white paper for the future needs so that adequate resources for sidescan sonar and multibeam sonar capabilities can be made available by federal funding agencies.