

PowerBuoy

- The battery charging test deployment has been delayed until May due to a power electronics failure that occurred during final testing before the April deployment. The cause has been identified and the system is back in final test before deployment this week and next. Shana Rae is again operational. Target deployment date is May 14th.
- As previously discussed, it is still to be decided if the three planned deployments in the schedule can be consolidated to two and still collect the needed data. In particular, the aims of the “two-week demonstration deployment” are to demonstrate survivability and longevity of the concept. This may well be accomplished during the battery charging test deployment, which is also scheduled for two weeks.

Numerical Model

- After the March meeting, I asked Liquid Robotics to provide a “letter of interest” that expressed their desire to license the numerical model in order to get the process of establishing appropriate terms under way here at MBARI. They checked back with me last week and are working on this.

AUV Docking

- AUV still not operational after its unexpected recovery. Failure analysis has identified a leak in the Iridium antenna that led to its loss. A solution has been designed and is currently undergoing testing. The vehicle should be operational again by the end of May.
- The AUV dock and support buoy for testing is nearly complete. All components have been procured and/or fabricated and integration is nearly complete. On-shore testing will be completed by early-May at which point that system will be awaiting an AUV to perform testing and docking demonstration.
- The Benthos USBL system has been demonstrating strange calibration sensitivities that limited the homing performance in the spring tests. Although the unit works acceptably in free-space, when it is mounted in the vehicle there is a “multi-valued” issue in which a measured bearing to the sound source maps to more than one physical orientation. This sensitivity seems to be related to the addition/removal of other instrumentation inside the vehicle housing. Work is underway with Benthos to understand and resolve this issue.