Shallow Submergence Science Committee

An ad hoc committee of DESSC

Action by DESSC

- Representative of “shallow water community” added as an ex officio member of DESSC
  - to serve as a liaison between “deep” & “shallow” submergence communities
- “The community of investigators involved in shallow oceanography, however, merit a focused committee that can serve as an advocate for facility needs within the UNOLS system and provide guidance to the federal agencies.”
- Ad hoc committee formed: “Shallow Submergence Science Committee”

Membership

- Chair, Shirley Pomponi (HBOI)
- 3 members of DESSC
  - Bob Embley (PMEL/NOAA)
  - Mark Chaffey (MBARI)
  - Patty Fryer (UH)
- Identify representative scientists from the "shallow submergence" community
  - Chris Goldfinger (OSU)
  - Craig Young (UO)
  - Ian McDonald (TAMU)
  - Chuck Fisher (PSU)
  - Bruce Robison (MBARI)
- Invite input from operators & agency reps

Key issues

- Assets currently available to the community.
- Critical facilities/technology needs.
- Scientific themes for shallow submergence research.
  - integrated approaches (SW & DW)
  - what disciplines exist that bridge the “gap” between SW and DW submergence science
- Process for access to and funding of shallow submergence facilities, and shortcomings of the process.
- Mechanisms to increase the funding base for submergence science.
  - Agency coordination

Task of Ad Hoc Committee

- Recommend an action plan to DESSC to address DESCEND recommendations

SSSC Term of Reference

- Definition of Shallow Submergence Assets:
  - Shallow submergence assets are those facilities appropriate for conducting research at depths between 100 m and 1500 m.

Assets Currently Available

- Range of assets currently available
- Potential users may not be aware of existing facilities
- Recommendation: DESSC compile a database of science-capable submergence facilties, including day rate, how funded, demand for use, and whether they can be configured for use on UNOLS vessels
- Potential users s/b encouraged to initate dialog w/ facilities operators re: access, use, compatibility, funding

Critical Facilities & Technology Needs

- HOVs & ROVs already being used for shallow submergence science (need to adequately justify HOVs)
- Other needs:
  - AUVs mission-specific, inexpensive, generic, interchangeable w/ variety of sensors for variety of applications, to be used independently or as part of underwater observatory systems
  - High-resolution, shallow water mapping systems
  - New tools to not only enhance measurement of physical & chemical parameters, but also to enable in situ biological experimentation (e.g., bio-boxes
  - Better imaging capabilities
  - Long term goal: development of national repository of tools, sensors, probes, etc., for deployment on submergence facilities

Other topics of discussion

- Scientific themes for shallow submergence research
- Systems/features particularly suited for shallow submergence research
- Processes/shortcomings for access to & funding for shallow submergence facilities
  - Funding for facilities s/b transparent to user

Mechanisms to Increase Funding Base for Submergence Science

- NSF funding for assets from program budget
- Budget increases for agency programs
- Legislative appropriations for program(s) and/or facilities
- Interagency support

SSSC Action Plan

- Committee will draft document to be distributed to DESSC and other members of shallow submergence community
- Committee will meet one more time to review responses and make final recommendations to DESSC
- Consider establishment of Submergence Science Committee (w/ interagency funding) to serve as steering committee and provide focus for increasing funding base