

- Concerns about losing existing maneuverability and science capabilities on ALVIN as a result of a conversion.
- Impact on ongoing science programs, especially time-series experiments and observatory experiments during conversion.
- Identification of funding sources for conversion and maintenance.
- Extent of engineering effort required.
- Trade-off between 6000m capability and bottom-time for HOV versus developing a 9000m ROV dedicated for science that could carry out sampling, mapping and other work efficiently at deep depths.

Conclusions of Working Group included:

- Options 8 and 8A are the most appealing.
- WHOI technical evaluation of options is needed and requires ONR funding.
- Deep submergence community has identified numerous scientific objectives to be met in the deep ocean and on the seafloor that require HOVs, ROVs and AUVs.
- A new science ROV must be designed and built.
- Deep submergence science should be highlighted as a key initiative for 21st century exploration and discovery of Inner Space.

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APPENDIX I

Working Group Membership

M. Perfit (Chair)- U. Florida
K. Becker -U. Miami
J. Bellingham-MIT
R.W. Embley-NOAA-Hatfield
P. Fryer-U. Hawaii
D. Fornari-WHOI
P. Jeff Fox- Texas A&M
J. Paul Johnson-U. Washington
M. Lilley-U. Washington
P. Lonsdale-SIO
K. Von Damm-U. New Hampshire

Also Attending

A. DeSilva-UNOLS (ex officio)
D. Elthon-NSF (ex officio)
D. Foster-WHOI (ex officio)

APPENDIX II

Date: February 14, 1997

To: Deep Submergence Research Community

From: Mike Perfit, DESSC Chair

Subject: DESSC Questionnaire to the Deep Submergence Research Community

Future Requirements for Deep Submergence Vehicles and Research Directions into the 21st Century

The following short questionnaire is designed to compile some specific responses on key issues related to deep submergence vehicle access to the sea floor for academic research. The results of this compilation will be utilized by the Deep Submergence Science Committee (DESSC) and a DESSC Working Group that will meet on March 20, 1997. DESSC will provide the Federal Agencies (NSF, ONR, NOAA) with guidance from the scientific community regarding the possible inclusion of the capabilities of DSV SEA CLIFF in the 1998-99 time frame and future research directions that would utilize these capabilities, especially the increased operational depth capability (6000 m). The Working Group will provide a short report to the funding agencies and oceanographic community by April 1997. Although the Working Group is comprised of a wide spectrum of marine scientists with deep submergence experience, we hope to elicit responses from most of the deep submergence community through this questionnaire.

We have tried to keep the questions short and specific in order to not take up too much of your time. However, we have left room for you to make specific comments on most questions if you care to do so. Because of the short lead time before the Working Group meeting, we ask that you respond as soon as possible and no later than March 3. The questionnaire should be sent directly to the UNOLS Office or you can fill out the questionnaire on-line via the UNOLS/DESSC web site (<http://archive.unols.org/committees/dessc/index.html>). If you have more specific issues related to the general topic of deep submergence vehicle needs and future directions please enclose those on a separate sheet or send them in a separate e-mail or fax message to me (perfit@geology.ufl.edu; (352) 392-9294) or to the UNOLS Office (office@unols.org, fax: (401) 874-6167). The results of the questionnaire will be made available to ONR, NSF and NOAA and will be posted on the UNOLS and DESSC web sites.

The questions fall into two broad categories: A - Future directions in deep submergence science, and B - Disposition of the US Navy submersible SEA CLIFF.