

Terms of Reference

DEEP SUBMERGENCE SCIENCE COMMITTEE

Revised and Accepted: June 2001

INTRODUCTION:

The Terms of Reference for the DEep Submergence Science Committee (DESSC) are herein revised to reflect the evolving role of this committee. The Committee retains its oversight responsibilities in the use of ALVIN and includes oversight of the use of the ROV assets of the National Deep Submergence Facility. Incumbent in this is fulfilling an ombudsman role for the deep submergence community, insuring maximum participation in the utilization of these deep submergence assets. It is also the responsibility of the DESSC to promote new technology for ALVIN and the ROVs to maintain cutting edge capability for the National Facility.

The DESSC will continue to work with the user community, federal sponsors and the operator of the deep submergence national facility to encourage deep submergence research in traditional areas and expeditions to remote geographic regions. Additionally, DESSC will also encourage the advancement of cooperative international programs for the enhancement of multidisciplinary submersible science throughout the academic community.

SPECIFIC TASKS FOR THE DEEP SUBMERGENCE SCIENCE COMMITTEE ARE AS FOLLOWS:

1. The UNOLS DEep Submergence Science Committee shall operate pursuant to appointment by UNOLS and in accordance with Annex II to the UNOLS Charter. In addition, each funding agency will be invited to designate an official observer to the Committee.
2. Advise Regarding Proposals for Use of National Facility Assets: Proposals for the use of the National Facility deep submergence assets are regularly submitted for peer review through the three principal funding agencies NSF, ONR and NOAA. DESSC no longer reviews proposals. DESSC will however provide advice regarding optimum use of the assets to maximize operational strategy for the deployment of these assets. Deliberations will consider whether the proposed research might be enhanced by the use of ROVs, AUVs and/or other undersea research tools, or be better accomplished using other manned or unmanned submersibles. The committee will work with agency representatives and staff from the operating institution to develop schedules that will most effectively utilize deep submergence assets.
3. Deep Submergence Assets Planning:
 - A. Annual Scheduling. Ship scheduling is based on funded projects and is done in part in consultation with the DESSC at the summer DESSC meeting. A preliminary scheduling discussion is conducted in an open forum for the user community at the winter (Dec. AGU) meeting. At that time the community is provided with an indication of the potential areas in which deep submergence assets could feasibly operate well in advance of proposal submission deadlines.
 - B. Global Expeditions: The DESSC will work with the user community, federal sponsors and the operator to determine the feasibility of organizing deep submergence science expeditions to remote geographic regions. DESSC will work with the federal funding agencies to provide timely information regarding funded projects so as to enable potential users to better evaluate the appropriateness of submission of proposals for work in remote areas.
4. Deep Submergence Science Tools: The DESSC will, on a continuing basis, maintain awareness of new scientific tools and the needs of the users for new sensors and equipment to address important scientific questions and provide this information to the NDSF Operator, UNOLS, and the federal

agencies. The technical capabilities of the deep submergence research assets will be formally reviewed by the DESSC, with the assistance of selected outside experts, at least once every two (2) years and the results of the review will be provided to the NDSF operator, UNOLS and the federal funding agencies. DESSC should encourage development and promote acquisition of new deep submergence sensors and tools as warranted by the scientific needs of the user communities. Some of this new equipment may have multidisciplinary use and could be considered, with appropriate resources, for inclusion into the standard suite of scientific equipment provided with NDSF vehicles. Other types of sensors may be task- or research-specific and should be considered Third Party Tools. DESSC has formulated guidelines for Third Party Tool development, which have been approved by the federal agencies and UNOLS. The UNOLS Third Party Tool Guidelines can be found at the following URL:
<http://archive.unols.org/committees/dessc/3rdpartytool.html>.

5. User Concerns: On a yearly basis, the committee will review and assess comments from scientific users of deep submergence assets and identify key areas that warrant attention by the operator and recommend remedial actions as appropriate.

6. Undersea Technology: With regard to undersea technology in the broader sense, the DESSC should monitor and promote the development and application of appropriate new submersible technologies, both manned and unmanned, shallow and deep, for use in undersea scientific research. The DESSC should coordinate their efforts with the science user community, technology developers and facility operators. The DESSC shall advise NSF, ONR, NOAA and other federal agencies on submersible technology, its evolution and applications. Additionally, the committee shall include a representative(s) with expertise in the areas of undersea engineering and technology.

In carrying out this task the DESSC will need to coordinate its efforts with the Academy of Engineering Marine Board and may need to organize special workshops.

7. Membership/Nomination of DESSC: The DESSC membership shall be comprised of individuals who can represent the various oceanographic disciplines required to advise on the effective use of submersible assets. Nominations to the DESSC and for the DESSC Chair will be open to the research community. Vacancies will be announced in various weekly journals and other venues as appropriate, and candidates will be asked to submit their vitae and letters of interest. Applications for membership to the DESSC and the DESSC Chair will be reviewed by the standing DESSC and voted on by the membership. The UNOLS Chair shall appoint the DESSC members and the Chair from the nominations made by DESSC. Members of the DESSC will be appointed for three-year terms, staggered so that two or three terms begin each year. Individuals may serve not more than two consecutive terms. The operating institution may designate an ex-officio member(s) in addition to those members appointed by the UNOLS Chair. With the Council's concurrence, standing committees of UNOLS may also designate ex-officio members as appropriate to DESSC.

8. Reports of activities shall be made to UNOLS.