

SUMMARY

In establishing UNOLS, the academic oceanographic community

is recognizing the stake and responsibility they have in the allocation

and management of oceanographic facilities. The UNOLS plan seeks

to satisfy a growing need for coordination of ships and other common-

use facilities needed by the academic institutions. It will provide the

funding agencies a national overview of the effectiveness of oceanographic

facilities utilization. UNOLS will provide coherent and

representative advice on the adequacy and distribution of existing

oceanographic facilities. It will also identify and recommend addi-

tional and special-purpose facility requirements of the academic

oceanographic program. UNOLS will assist the laboratories in

providing more uniform procedures on cruise reports and ship

cost-accounting.

UNOLS will perform these functions by providing a forum for

presenting the seagoing scientists ideas to the funding agencies in an

organized and forceful manner. The funding agencies will be able to

take advantage of the efforts of UNOLS in coordinating the govern-

ment's programs and funding to assure the academic oceanographic

institutions have adequate and stable long-term funding for the opera-

tion, maintenance and acquisition of common-use facilities and

services.

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acquisition, and often the facilities should be available to the academic oceanographic community as a whole. Requirements for specialized facilities are best identified by scientists themselves. It is likely that in the course of the ship scheduling meetings or meetings of the UNOLS Committee, these specialized requirements and ideas for new facilities concepts will be aired and catalyzed. Recommendations concerning them can then be made to the scientific community and the funding agencies. Likewise, the availability of specialized facilities can be communicated to the academic oceanographic community through the efforts of the UNOLS Committee.

SCHEDULE FOR IMPLEMENTATION OF UNOLS

It is desirable to implement the UNOLS plan at an early date in order that it be operational for the ship schedule process during calendar year 1972. Accordingly, it is suggested that:

- (1) the UNOLS Committee be set up as soon as possible, preferably by end of October.
- (2) the UNOLS Office be established at an early date and its staff hired. This could be done as soon as UNOLS is approved by the academic community and funding agencies.
- (3) ~~that~~ ^{the} institutions desiring to become members of UNOLS submit this information to OAB, NSF or the UNOLS Office when it is established.

Subsequent to the coordination meeting, each operating labora-

tory will develop a ship schedule for the following year. (Again, it

must be recognized that this schedule will have to be revised con-

tinually to accommodate vagaries in ship's operating problems as

well as changes in scientific programs. These minor changes will

be the responsibility of the operating laboratory, but will be made

in context with the previously agreed upon schedule.) The planned

schedules should be forwarded to the UNOLS Office by 1 July. The

UNOLS Office will furnish funding agencies with copies; the agencies

can then review all schedules prior to consideration of funding for

the next year. These schedules, along with the research programs,

should be the basis for the laboratory proposal for NSF block funding.

Further, the UNOLS Office will circulate the final schedules to all

interested parties.

OTHER OCEANOGRAPHIC FACILITIES

As oceanography has become more mature and sophisticated,

the needs for facilities have become more varied and, in particular,

the need for specialized facilities have become apparent, e. g. deep-

sea drilling ship, submersible and tender, aircraft, technical support

for computers and other highly specialized equipment (both ship-borne

and on land). Some of these facilities are so expensive and complex

that a single research project or institution cannot justify their

As an initial step each laboratory responsible for the operation of one or more ships will develop a tentative schedule for its ships. This tentative schedule should incorporate as broad an input as possible, both from within and without the operating institution. Further, the schedule at this stage must be considered as tentative; it is recognized that factors such as funding, logistics, weather, geography and research programs will provide many constraints. This tentative schedule should be formulated in January and February and should include operations proposed for the following calendar year and for the subsequent year if possible. A copy of this tentative

- scheduling meetings. The operating areas are defined as:
- (a) OPEN OCEAN - 500 miles or more offshore or when the ship makes calls at non-continental U. S. ports (including Hawaii and other U. S. oceanic islands).
 - (b) EAST COAST - less than 500 miles off the east coast of the U. S., including the Gulf of Mexico and the Great Lakes; in general, when ships operate from U. S. ports.
 - (c) WEST COAST - less than 500 miles off the west coast of the U. S. including the Gulf of Alaska (but not Hawaii); in general, when ships operate from U. S. ports.

schedule should be forwarded to the UNOLS Office no later than 1 March.

The UNOLS Office will collate the various tentative schedules and distribute these to members of UNOLS and other interested institutions and scientists. After these schedules have had appropriate distribution a meeting of representatives of UNOLS members will be convened for the purpose of coordinating ship schedules. One meeting will be held for each of the operating areas mentioned above. In general, one representative from each operating institution will be invited, with a provision of adequate direct communications to his home laboratory. Other scientists and laboratories having requirements for work at sea in the area under discussion will be invited, either to submit their requests or to attend and present them at the meeting. This meeting should be convened no later than mid-May. The objective of the meeting is to compare the various schedules, to modify them as desirable in order to achieve more effective use of ships, and to incorporate as many as possible of the requirements that could not be integrated in earlier schedules.

More than likely, all requirements will not be accommodated. Therefore, these carry-over requirements should be noted. They should provide an input into the following year's procedures and given early consideration.

institutions operating ships will attend more than one of the
restrict the area of operation of any ship or group. In many cases,
schedules to consider at one time, and in no way are they meant to
These are for the convenience of reducing the number of ship
coordination meeting, are designated to simplify the procedures.
Three operating areas, each having a separate schedule
proposed for the coordination of ship schedules.

been achieved. Within this framework, the following procedure is
of the UNOLS Committee to ensure that effective operations have
responsibility of the operating institution. It will be a responsibility
UNOLS is that control of facilities and their scheduling remain the
immediate benefit might be gained. An underlying principle of the
coordination of ship schedules is the most obvious area where
mechanism to coordinate the use of common facilities. The
An important facet of the UNOLS activities is to provide a

A PROCEDURE FOR COORDINATING SHIP SCHEDULES

with the existing funding methods of the funding agencies.
cruise reporting, both accounting and reporting to be consistent
institutions, and by reviewing and approving a uniform method of
system of cost accounting for vessel operations of participating
reporting of ship operations by encouraging the use of a uniform
It will assist the funding agencies to improve financial and scientific

UNOLS activities. A UNOLS office will be established at an existing oceanographic laboratory. This office will act as the focal point for correspondence for UNOLS. An essential part of UNOLS will be a committee established to monitor the activities of the system and to provide appropriate advice to members as well as to the funding agencies. It is anticipated that the UNOLS office would provide staff for the committee and that the head of the office also be the Executive Secretary of the UNOLS Committee. At least once a year, it is proposed that representatives of UNOLS membership convene a meeting to coordinate the schedules of common-use facilities such as ships, submersibles, aircraft, etc. This will be arranged by the UNOLS office, with the site of the meeting to be rotated among the oceanographic institutions.

It is anticipated that the UNOLS office will be provided among the funding agencies in accordance with their participation in the project.

UNOLS COMMITTEE

constituted and grant program will be distributed.

It is proposed that the UNOLS committee consist of seven members to be chosen from the academic community. Committee members will be nominated by the oceanographic community at large, by the National Science Foundation with the advice of other funding agencies, and by appropriate panels of the National Academy of Sciences (other than the Ocean Affairs Board). The Ocean Affairs Board of NAS, in consultation with the funding agencies, will select the first set of members for the committee from those nominated.

ships' schedules to observe and review the results of such scheduling.

Committee will attend meetings convened for the purpose of coordinating

As an aid to the effective use of existing facilities, the UNOLS

with the balance between facilities and research support.

facilities or new concepts in facilities. It will also concern itself

as well as to the funding agencies the consideration of specialized

the UNOLS Committee will recommend to the oceanographic community

of Sciences, NSF Advisory Panels, and other groups of scientists,

In consideration of research needs recognized by the National Academy

It will evaluate the need for replacement and additional facilities.

of existing facilities to carry out the present research programs.

well as its own capability, the committee will assess the capacity

of the numerous scientific review groups already in existence, as

use of oceanographic facilities. On the basis of recommendations

The UNOLS Committee will focus its activities on the effective

included.

operating vessels and non-ship-operating institutions should be

tific discipline, institution size. Representatives from institutions

be given to balance, with respect to geographic distribution, scien-

for less than two years). In selecting the committee regard should

after the first year will be rotated annually (i.e., no one will serve

tions provided as above. Members will serve for 3-year terms and

Thereafter, the committee will select its own members from nomina-

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that have been exhibited in the past as well as to provide a flexibility of operation allowing for a coordinated approach to some of the foreseeable challenges -- it is proposed that the academic laboratories organize a system in which they can work cooperatively for the effective use of oceanographic facilities. The organization would be known as the University-National Oceanographic Laboratory.

System (UNOLS). Membership in the system would be open to any academic institution having ocean-related research programs that wishes to participate in the activities of UNOLS. Membership in UNOLS would entail a responsibility of each institution to coordinate the scheduled use of common facilities and services and to review the use as well as the need for additional facilities on a regular basis. Similarly, the funding agencies can utilize the UNOLS mechanism to provide a clearer picture of the overall need for oceanographic facilities by academic institutions and a better accounting of their use. This would assist the various agencies in coordinating their support of common-use facilities and services and enable the government to plan for long-term stable support.

UNOLS ORGANIZATION

The UNOLS will be comprised of all academic institutions which have ocean-related research programs and that indicate a desire to become members. All members will be expected to participate in

above and at the same time continue the high standards of research and the governmental agencies can meet the responsibilities noted In order to provide a mechanism whereby the academic community

A PROPOSED PLAN

expense of existing ones. given to the establishment of new laboratories, lest they be at the becomes an integral part of planning, and that careful consideration be disposing of old ones are assessed, that long-term stable support laboratories have access to the sea, that the need for new facilities or efficiently, that scientists from both ship operating and non-operating between research and facility support, that available facilities are used the expenditure of these funds to insure: that there is a proper balance its own responsibility along with that of the funding agencies to monitor aware that the continued health of the programs depends heavily on both at the academic institutions. The academic community is also acutely have been major factors in developing meaningful research programs common-use facilities. This growth, and its anticipated continuation, the Federal Government has provided ships, laboratories and other created laboratories. Commensurate with the increase in manpower, Some of these gravitate to existing institutions, others go to newly a continuing enlargement of the number of marine scientists available. the country's capability to do research at sea. As a result, there is

A significant portion of the United States' strength in oceanography rests in the academic institutions carrying out research on the high seas and in coastal waters. Oceanographic research and training programs were developed independently by these institutions during the past few decades. The independent development of these programs has resulted in a diversity of activity, style, and mode of operation which has been instrumental in the success of the existing national oceanographic effort. Although it is recognized that the diverse nature and independent development of these institutions represent great strength, in recent years, the increased complexity, and size of research programs have brought with them a need to consider additional modes of operation which can maintain this strength as well as to allow for a coordinated attack on problems too large or complex for a single institution to undertake on its own resources. Many of the laboratories have already initiated both formal and informal arrangements to meet such situations.

Moreover, with the national recognition of the importance of the oceans strategically and for economic resources, there has been a concerted effort on the part of various Federal Agencies to increase

BACKGROUND

UNIVERSITY-NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

A PROPOSAL TO ESTABLISH A

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