On May 2 the following subjects were discussed:

ALPHA HELIX. Dr. Barber distributed copies of this ad hoc committee's report on ALPHA HELIX. See Attachment I. After some discussion the following motion was prepared. All present were found in favor after a vote, but additional votes will have to be secured later as a majority of Council members were not present.

> Motion. *The Advisory Council concurs with the report of the ad hoc ALPHA HELIX Committee and further recommends to the National Science Foundation, the primary funding agency, that the vessel no longer be designated a National Oceanograhic Facility after the conclusion of the presently planned and funded operation.*
>
> *The Advisory Council further recommends that the operator/owners, NSF, and UNOLS assess the possibility of ALPHA HELIX filling an appropriate need within the UNOLS fleet.*

The secretary was instructed to read the motion to those Council members absent and record their vote. If a majority in favor can be secured then the motion passes and at that time word shall be passed to MLML, USC, U. of Alaska and U. of Washington.

EQUIPMENT WORKSHOP. Considerable discussion centered on the Oceanographic Equipment Workshop. The following action was suggested:

a.) Dr. D. Spencer, one of the Workshop Co-Chairman, is to be invited to the Annual Meeting to report on progress, as Dr. Barber is unable to attend.

b.) The individual and institutional responses to the preliminary report need to be incorporated; it is suggested the Chairman meet as soon as possible to consider the comments.

c.) The possibility of establishing a technology review panel to keep the momentum of the Workshop going seemed attractive. If OFS concurs, possible candidates with areas of expertise as a beginning could be:

A. Driscoll - winches, wire
R. Mesecar - data systems and management
R. Williams - port captain/engineer responsibilities
C. Tollios - navigation & communications
L. Abbott - sea-going computers
J. Stasny - shared-use equipment maintenance
R. Gerard - Chairman, RVOC Equipment Committee

FLEET OPERATIONS. At the January La Jolla Council meeting Drs. Frankenberg and Bezdek had urgently sought action by the Council on the mismatch between the number of vessels in the fleet and the dollars to operate them. Accordingly, Council members had been requested to submit statements on the various options open to operators to Dr. Keller. After several attempts at revision involving to varying degrees all members of the Council a document was put together dated 10 April 1979, purporting to represent the position of the

UNIVERSITY - NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

An association of Institutions
for the coordination and support
of university oceanographic facilities

UNOLS Office
Woods Hole Oceanographic Institution
Woods Hole, Massachusetts 02543

ADVISORY COUNCIL

Minutes of Meeting, May 2, 1979
Evergreen Room, Sheraton Hotel, Denver, Colorado

General. This special meeting was called by the Chairman to consider further treatment of the oceanographic equipment workshop report, further study of fleet operations in the face of declining support, and the agenda for the Annual Meeting. In addition it afforded an opportunity to hear firsthand the findings of the ad hoc committee* chaired by Dr. R. Barber.

Several members of the Council were unable to attend, but it was decided to hold a session for those who could. Those present were: Drs. G. Anderson, R. Barber, G. Keller, J. Martin, and Captain T. K. Treadwell as well as the Executive Secretary.

An informal session was held from 2015-2300 the evening of May 1 in the same room, with all of the above present except Dr. R. Barber. The Annual Meeting, fleet operations, replacements for outgoing members of various committees, and the Minutes of the January meeting were discussed but no action taken. A clarification of wording in the proposed Charter revisions was pointed out and will be called to the attention of the membership at the Annual Meeting. Section 4 (b), p. 3 of the current Charter, if amended by the Annual Meeting, will now read:

> The Advisory Council shall be comprised of eight members, five of whom will be from Member Institutions and three from Associate Institutions *or other non-Member Institutions*. No more than one member will serve from any one institution. Members will be elected for three-year terms with no limitation on the number of terms. Vacancies occurring during the year shall be filled at the next Annual Meeting.
>
> *Election of representatives of Member Institutions to the Advisory Council shall be by a simple majority note of UNOLS Members present or by proxy, if absent. Representatives of Associate Member Institutions or other non-Member Institutions shall be elected by a simple majority vote of UNOLS Member and Associate Member Institutions present or by proxy, if absent.*

* At the March meeting of the ALPHA HELIX Review Committee a motion was passed requesting the Council to consider whether the ALPHA HELIX should continue as a National Facility. An ad hoc panel was set up consisting of: Dr. R. Barber, Chairman; E. Chin, R. Fisher, W. Hulet, E. Newcomb, & A. Yayanos.

majority of the Council. It was not circulated to the membership as time didn't allow, nor was it intended to represent UNOLS members' views.

Dr. Keller polled those present to see if they at that point agreed in essence with the document. Generally they did, but there was some difference of opinion at some wording and there was the thought that what was meant to be considered was being understood by the recipients as being recommended.

ANNUAL MEETING AGENDA. Details of agenda were discussed and planned. The secretary will circulate it immediately.

Adjourned at 1430, May 2, 1979.

Thomas Stetson
Executive Secretary

ATTACHMENT I
REPORT OF THE AD HOC COMMITTEE ON ALPHA HELIX
Scripps Institution of Oceanography
La Jolla, CA
20 April and 1 May 1979

The Alpha Helix Review Committee during its March 27 and 28, 1979 meeting passed the following motion:

Motion: "The Alpha Helix Review Committee is concerned that sufficent interest by the scientific community in the use of the Alpha Helix is lacking, as reflected by the paucity of quality proposals it has received in the past two years. It is also concerned about the ultimate lack of success of these proposals to receive support from NSF research programs.

Accordingly, the Committee recommends that the Advisory Council of UNOLS establish an ad hoc committee including representation from the operator institution to consider whether continuation of the Alpha Helix as a National Oceanographic Facility is justified."

Dr. Keller, UNOLS Advisory Council Chairman, in consultation with the operating institution and funding agency, asked the following individuals to serve on an ad hoc committee to respond to the motion and to give the Advisory Council a recommendation on whether continuation of the Alpha Helix as a National Facility is justified. The following people agreed to serve on the committee and met at Scripps Institution of Oceanography April 30 and May 1, 1979:

R. T. Barber, Chairman
E. Chin
R. L. Fisher
W. H. Hulet
E. H. Newcomb
A. A. Yayanos

On the morning of April 30 the committee met with Drs. White, Hammel, Hemmingsen, Nealson, Holm-Hansen, and Cheng, and held a discussion of the origin of the low demand for Alpha Helix, possible remedies and possible future courses of action.

The excellence and uniqueness of the work done on Alpha Helix is universally recognized. The ad hoc committee did not feel that it was necessary to further document the contribution that Dr. Scholander's Alpha Helix concept has made to our understanding of the natural world; that contribution is acknowledged without reservation by scientists in many areas of biology.

The ad hoc committee examined the validity of the Alpha Helix Review Committee's 1) contention that demand for the use of the National Facility was low, 2) causes for the low demand (if the contention was correct) and mechanisms of turning around the low demand in the near term and long-term future.

1) The number of proposals and letters of intent and the follow through on these was examined carefully. This information convinces us that the Alpha Helix Review Committee is correct in its appraisal; the demand for the National Facility was very low in 1978 and declined further from 1978 to 1979. In the discussion of the low number of proposals it became clear that while interest in and awareness of Alpha Helix is quite widespread in the last year only a small group of individuals successfully followed through on the entire process.

2) Given that the low number of proposals is a real problem and not a perception caused by some accident of meeting scheduling or other detail, we then asked why the present demand is so low. Most of the time of the ad hoc committee was given to this question to determine if there is a solution that can be recommended. This committee feels that communication per se is not the origin of the low demand problem. The Alpha Helix Office at Scripps Institution of Oceanography, the UNOLS Office, the Alpha Helix Review Committee and past users all have worked to inform the scientific community of the opportunities available and mechanisms by which the Alpha Helix can be used. In

terms of distribution of flyers and announcements it seems to us that all that can be done has been done. At the same time many experienced Alpha Helix users argue that lack of awareness is a major cause of the low demand. If that is correct it seems clear that this lack of awareness cannot be remedied by traditional mechanisms of communication and advertisement but would require more focused and individual efforts. The major pool of users should grow naturally (and at an accelerating rate) from the population of student participants and by communication of the Alpha Helix opportunity through the publication of papers. An expanding pool of dedicated users has not grown sufficiently to adequately use the facility nor have flyers and announcements by themselves recruited a sufficient pool of users.

One factor possibly contributing to the decline in demand is the great effort required by the application process from submission of a letter of intent to final approval. The effort required is great and has increased in recent years. Futhermore, the two-tiered system of access to Alpha Helix is cumbersome, sometimes slow acting, and sometimes relatively indecisive. Some potential users might be discouraged by the complexity of access to the facility and by the decentralized decision making process. We doubt that the slightly increased complexity of access is a major cause of declining demand. Academic students in all disciplines are required to put a greater proportion of their effort into non-creative and useless paperwork to get support for their creative research. This situation is a national problem and not unique to Alpha Helix.

It is clear that there are some proposal processing problems that might demoralize, if not discourage, principal investigators. The program managers

at NSF who must process the Alpha Helix proposals seem insensitive to the need for timely decisions required by ship scheduling and logistics. The review panels sometimes judge the science meritorious and then cut the funds for travel and logistics that are absolutely essential to long-range expeditionary work. Since Alpha Helix proposals are only a small proportion of the program managers' workload they are unable to give these proposals the additional attention that they apparently need. Some Alpha Helix proposals go adrift in the NSF system because they are inherently multi-disciplinary and cannot be smoothly processed by the disciplinary structure of the Foundation. These factors may also have contirbuted to the decline in demand for Alpha Helix.

We believe that the major factor responsible for the low demand is the general support climate that exists in academic science today. Principal investigators must put more effort into the proposal process to keep their laboratories functioning; given this situation fewer individuals seem to be willing to devote the extra effort that is needed to put together an Alpha Helix operation. The individuals who are willing to go to the effort are outstanding and successful scientists; the problem is that there are too few of them.

It appears that the cause, or causes, of the current low demand are not remediable in the near term by any action that NSF, UNOLS or Scripps can take, and that the causes must be addressed in the long term if a national capability in expeditionary biology is to be preserved.

In view of the above conditions this committee finds that continuation of the Alpha Helix as a National Facility is not justified, but recommends that a

mechanism for accessing and identifying the valid long-term interest in expeditionary biology be fostered by NSF and UNOLS. A possible first step would be to circulate a request among past Alpha Helix users asking for volunteers to serve on a task force to consider the role of expeditionary biology in the nation's scientific capability and the facilities necessary to support this role.

The finding that continuation of Alpha Helix as a National Facility is not justified should not preclude future use of the Alpha Helix for expeditionary biology if the need for such use becomes strong in the future.

It is recognized that previous participants in the Alpha Helix program have used the ship productively and well; UNOLS should be responsive to the needs of these scientists and should make a special effort to accommodate them on other vessels.

The needs of expeditionary biological programs may be cyclical and the door should be left open to scientists who, in the future, may put together major integrated programs that require the use of a research vessel for significant and sustained periods of time for expeditionary biology. In such cases, these scientists should have the opportunity to submit large, integrated proposals, to NSF, possibly in the IDOE mode, for support of the science and the facilities needed to do the work. The task force on expeditionary biology should consider what mechanism is best for evaluating and supporting this kind of science. One lesson learned is that the existing procedures and organization do not nurture this kind of science; if expeditionary biology is an important component in our national scientific capability an improved mechanism must be evolved to support it.

Richard T. Barber
2 May 1979