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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 held February 24-25, 1977, Room 642, at the National Science Foundation, Washington, D.C. The following were present for all or part of the meeting:

Advisory Council

Dr. R. Dugdale, Ch.

Dr. R. Barber

Dr. D. Frankenberg

Dr. G. Keller

Capt. T. K. Treadwell

Dr. W. Wooster

Dr. F. Webster

Others

Ms. M. Johrde Mrs. S. Toye Mr. R. Elder Mr. T. Stetson Mr. H. L. Clark

Dean W. Gaither (U. of Delaware) Mr. Richard Schneider (U. of Del.)

Mr. W. Erb

- 1. As each day of this meeting had a very different agenda as well as participants, they are reported separately. For a resume of the Ship-Use Forecasting Meeting, held February 24th, see the Synopsis. The absence of some Council members limited discussion on several items.
- 2. The Council met in closed session from 0830 until 1130, when the session was joined by members of the Office of OFS.

UNIVERSITY OF DELAWARE

- 3. As a result of the consideration of the University of Delaware's application (dated 9 Nov. 1976) by the Council at its last meeting, Drs. Wooster and Dugdale had written Pres. Trabant requesting further information relative to the operating history, proposed schedule, present and future funding. This information was received, in part, in a letter from Pres. Trabant to Dr. Dugdale dated Jan. 25, 1977.
- 4. Dean Gaither requested he be present on February 25th and so he was, with Mr. R. Schneider, Executive Officer. Dean Gaither emphasized that the University of Delaware had followed UNOLS recommendations in designing and constructing a coastal zone research vessel and that this had been done with private rather than Federal funds. The reference to UNOLS recommendations pertains to the "Report of UNOLS Working Group on Coastal Zone Research Vessels" of 12 April 1972. In discussion, the Advisory Council pointed out that membership in UNOLS did not guarantee operating funds.

- 5. There was a difference of opinion as to what constituted a significant history of operation. Dean Gaither cited 1972 as the date when experience began; the Advisory Council considered that the realities of actual operating experience and funding should extend over a significant period. Since R/V CAPE HENLOPEN was delivered to the University of Delaware only in April 1976, there did not seem to be an adequate period over which experience could be evaluated.
- 6. The application was discussed at considerable length while still in Executive Session. Due to the limited operating experience the Council was faced with two possibilities:
 - (a) Recommending full membership solely on the basis of the Charter.
 - (b) Suggesting the application be postponed.

At Dean Gaither's suggestion, alternative (b) was dropped. From a legal point of view, the University of Delaware appears to meet Charter requirements in the opinion of the Advisory Council and on that basis the following resolution was adopted by unanimous vote:

The Advisory Council has reviewed the University of Delaware's application for membership in UNOLS. In the opinion of the Advisory Council, the University of Delaware meets the criteria for UNOLS membership as expressed in the Charter, i.e. it operates a Federally funded, significant oceanographic facility. The Advisory Council therefore transmits the application to UNOLS members for formal action at the May 1977 meeting.

In view of limited operating experience of the University of Delaware's Research Vessel, the Advisory Council was unable to evaluate its future role in coastal zone research, therefore the transmittal should not be construed as endorsement of the University of Delaware's research vessel CAPE HENLOPEN. Relevant to this matter, the Advisory Council has asked the Executive Secretary to forward to the membership a UNOLS Evaluation of the R/V CAPE HENLOPEN and the University of Delaware's response.

- 7. Other points made by Dean Gaither:
 - (a) Marketing of vessel poor so far--should improve with new superintendent coming on.
 - (b) Wishes to keep ship schedule flexible, no more 60-90 days in advance is definite.
 - (c) Vessel's rate is verified for the year, as it is backed by the University of Delaware.

(d) Some deficiencies, noted in the UNOLS report evaluating the CAPE HENLOPEN, are being addressed. Most important is the addition of paravane roll stabilizers.

HOBART & WILLIAM SMITH

8. Hobart & William Smith Colleges' application for Associate Membership dated 14 November 1976 was considered and it was recommended. It will be submitted for approval at the Annual Meeting. This institution is located in Geneva, New York and operates H. W.-S. EXPLORER (65') on Lakes Seneca and Ontario.

SEA EDUCATION ASSOCIATION

9. S.E.A.'s application for Associate Membership dated 13 November 1975 and pending was considered and it was felt the operation did not meet criteria as set forth in the Charter. The E/S was directed to write S.E.A. notification of this action and to encourage them to stay in R.V.O.C.

SHIP FORECAST MEETINGS - Post Mortem

- 10. Three ship-use forecast meetings were held:
 - (a) East & Gulf Coasts, 21 Jan. 1977, Baltimore-Washington Airport motel.
 - (b) Pacific NW, 31 Jan. 1977, U. of Washington, Seattle.
 - (c) Distant water operators and Federal Agencies, 24 Feb. 1977, Washington, D.C.

The minutes of these meetings are available and all were successful to varying degrees. The Advisory Council, at the risk of too many meetings, will recommend to the Annual Meeting they be held again next year.

NOMINATING COMMITTEE

11. Appointment (and acceptance) of a Nominating Committee has been accomplished by Dr. Wooster. It consists of Drs. A. Maxwell, Ch., J. Byrne, R. Dugdale. Call for nominations was made by the E/S Feb. 3 and established a deadline of April 30 for replies.

MINUTES OF PREVIOUS MEETING

12. The minutes of the A/C Meeting of 6-7 Dec. 1976 were adopted with two minor changes.

NATIONAL OCEANOGRAPHIC FACILITIES

- 13. ALPHA HELIX. The E/S noted 3 persons were leaving the R/C this spring--Drs. Alexander, Chin, and Sackett. Nominees by the A/C are: Drs. J. Caperon, Hawaii, R. Lasker, NMFS/NOAA, and C. Miller, OSU. Drs. R. Burris, Wisc., and R. Eppley, SIO, were designated as alternates. The E/S will determine whether they are willing to serve.
- 14. ALVIN. It was noted there were few <u>users</u> on the R/C. Dr. G. Keller, OSU, was nominated to serve another term. Dr. R. Turner, Harvard, is also nominated. Alternates are: J. Corliss, OSU, F. Grassle, W.H.O.I., B. Heezen, LDGO, and A. C. Neumann, U. of N. Carolina.
- 15. EASTWARD. In response to Ms. Johrde's suggestion late last year, Dr. Barber, on behalf of the Cooperative Oceanographic Program at Duke, introduced a letter formally agreeing to discontinue the EASTWARD's designation as a National Oceanographic Facility. Recognizing the operation is well-run, regional in nature, and that the vessel is no more unique than other R/Vs of the same length it seemed logical to make this move. The E/S will notify the present R/C of withdrawal of UNOLS direction and support, with an expression of thanks for their labors.

The E/S will forward the suggestion in Dr. Barber's letter re modification of N.O.F. description (Charter, Annex II) to Dr. Gross.

CHARTER AMENDMENTS

16. This item provoked considerable discussion. Charter amendments should meet the needs (representation and voice) of distant water operators, others without that capability, and non-operators. Problems including election procedures and geographic distribution should be addressed well before the Annual Meeting, if ratification is expected. A/C members, other than the working group, (Gross, Frankenberg, Webster) are invited to submit text changes to the Chairman, Dr. Gross.

Recommended was:

- (a) Expansion of the A/C by one, drawn from the Membership.
- (b) Leave specification of officers alone.
- (c) Make provision for the establishment of an annual nominating committee.
- (d) This committee should set a date to meet immediately in order to have a recommendation to present to the next Annual Meeting.

FACILITATION DEEP WATER RESEARCH

17. Mr.William Erb was present for discussion of this item. Question: What should UNOLS' role be in relation to this problem, beyond mere proforma compliance. Whatever agreement a P.I. may enter into, there is a set of obligations at State level requiring compliance. Ways of using existing "tools" should be explored. In view of the fact that one incident could deny other investigators access to a specific coast, it is hoped Dr. Wooster can draft a policy, procedure, or standard, that might serve as the basis for discussion at the Annual Meeting, May 12-13 in Washington, D.C.

Thomas Stetson Executive Secretary UNOLS

Background Information

(Items sent out prior to the upcoming meeting)

UNOLS.

APPLICATION FOR ASSOCIATE MEMBERSHIP

Pursuant to the UNOLS Charter the below named organization hereby submits application for associate membership in the University-National Oceanographic Laboratory System. In doing so the applicant understands and agrees to work for the objectives set forth in the UNOLS Charter.

| Name of | of Institution: Hobart and William Smith Colleges | |
|--|---|--|
| Name of | of person delegated to act as representative to UNOLS | |
| | Name: Mr. Richard Wilkins | |
| | Title: Administrator of Ship Operations | 5 ° . 8. |
| * | Address: Hobart and William Smith Colleges Geneva, New York 14456 | |
| | Tele. No. (315) 789-5500 Ext. 213 | |
| General grams: | No. Professional Personnel 6 No. Grad. Studen | |
| | Approx. Annual Budget \$30,000.00 | |
| | List of research vessels owned or operated: | |
| i. | <u>Name</u> <u>Size</u> | |
| | R.V. HW.S. Explorer 64'7" LOA | The state of the s |
| | | · · · · · · · · · · · · · · · · · · · |
| | | · · |
| | Please attach copies of brochures, bulletins, photos, describe the institution and its facilities. | etc. which |
| whom the | attach a brief list of the names and addresses of key he following information sent out by UNOLS would apply ion UNOLS Representative receives all) . Ship user information - research ship schedules, sh abilities, etc. (intended for scientists and sl . Research ship operations and maintenance - for marin | (Note: The In- ip avail- hip users) |
| Control for the control of the contr | tendents and port captains | |
| Send to | o: Submitted: | |
| | Office Note Occamographic Institution Note, Massachusetts 02543 Name Richard Missachusetts 02543 | viens |

BACKGROUND

Hobart and William Smith Colleges, located in Geneva, New York, are relatively small, liberal arts institutions with a strong commitment, through their science programs, to lake- and ocean-oriented studies. The Geoscience Department, working in close cooperation with the Departments of Biology, Chemistry and Physics, is the focus of our efforts in this regard. The Department has been actively carrying out instruction and research on Seneca Lake and Lake Ontario since 1965. Several hundred of our students are involved in these activities in one way or another each year.

In the past we have worked from T-boats owned by a local consortium, but those vessels became unavailable to us in mid-1975. Now we work from our own vessel, a converted L-Boat the R.V. H.-W.S. Explorer, acquired and refitted early in 1976. Ship operations are supported by technicians and a small administrative structure and the vessel is run by an operator/mechanic with assistants as needed. Facilities on board include Radar, VHF and CB, 12 KW 220/110 AC, 10 KW 120 VDC, two recording depth-sounders, one-ton boom and winch, laboratory space and galley. Safety equipment for 25 is aboard. Scientific equipment available includes water samplers, sediment grabs and corer, subbottom profiler, temperature sensors, current meters and various biologic samplers. This vessel is available for use by other parties as schedules permit.

For further information, contact:

Mr. Richard Wilkins Administrator of Ship Operations

Enc.

History: Hobart College, for men, was founded in 1822 and is the oldest college in western New York State. William Smith College, for women, was founded in 1908 and is a coordinate institution. The work of the two Colleges is conducted by a common faculty. Each College, however, maintains its own campus, directs its own undergraduate life, and has its own Dean and advisory staff.

Location: The Colleges are situated in Geneva, N.Y. at the tip of the largest Finger Lake, Seneca. Exit 42 of the N.Y. Thruway leads directly to Geneva, as do U.S. route 20 and state route 5.

President: Dr. Allan A. Kuusisto, B.A., Wittenberg; M.A., Ph.D., Harvard.

Accreditation: Middle States Association of Colleges and Secondary Schools; Regents of the University of the State of New York. William Smith College is also recognized by the American Association of University Women.

Curriculum: A program of study composed of the Freshman Year, the Middle Years, and the final or Baccalaureate Year which a

itudents Receiving Financial Aid: 25% intitutional aid; 35% general financial aid.

Ionor Societies: Phi Beta Kappa; Phi Signa Iota (Romance languages); Delta Phi Ipha (German language); Epsilon Pi igma (science); Pi Gamma Mu (social cience); Kappa Kappa Psi (band); Hai imiai (William Smith).

Fraternities: Sigma Phi, Kappa Alpha, heta Delta Chi, Sigma Chi, Kappa Sigma, Jelta Chi, Phi Sigma Kappa, Phi Kappa

Campus Government: A Community Sente composed of faculty, student and administration representatives acts as the enter for communication and consultation concerning action taken by any of nese bodies. Hobart and William Smith naintain separate student associations with the governing officers of each elected t large from within the respective student odies.

Student Activities: Lecture-Artist Series, little Theatre, Koshare (dance club), arious choral and instrumental groups, ferald (campus newspaper), WEOS campus radio station), Echo and Pine yearbook), Seneca Review (literary magaine), and more than 20 other special

student may pass through in 3-5 years. Distinctive features include a series of General Education courses for freshmen; the Baccalaureate Essay, a bidisciplinary paper, which must be accepted by the faculty before the student enters the Baccalaureate Year; and the Baccalaureate Colloquium, an interdisciplinary seminar involving a small number of Baccalaureate Year students and two faculty members from different disciplines.

Grading: Students may choose between "credit" and "A, B, C" grading in all courses. Only courses in which students have shown basic competence (passing grades) are recorded on their transcripts.

Special Programs: Independent Study, Honors Program, Individual Major, Area/ Topic/Period Supplements, Binary Plan in Engineering, Study Abroad, Study at Other Institutions, United Nations Semester, Washington Semester.

Degrees Awarded: B.A., B.S.

Departments: Anthropology-Sociology, Art, Biology, Chemistry, Classical Languages, Economics, Education, English,

Intercollegiate Athletics: Hobart: football, soccer, basketball, swimming, squash, cross country, baseball, lacrosse, tennis and track, William Smith: swimming, field hockey, tennis, basketball, lacrosse and sailing.

Endowment: \$4,976,000. (book value)

Annual Operating Budget: \$8,600,000.

1974-75 Annual Fund: \$435,875.

Donors 1974-75 Annual Fund: Hobart - 3101 (40%), William Smith - 1599 (43.5%), Parents - 1187 (36.4%), Total - 5887.

Campus Area: 170 acres.

Library:171,038 volumes; 1,199 periodical titles. A new Library-Classroom Center will be ready for occupancy in the spring of 1976.

Facilities: 35 residence houses and dormitories. 9 fraternity houses, 13 classroom and administrative buildings, 2 gymnasia, library, chapel, infirmary, 2 dining halls, little theatre, student union, arts center, post office, bookstore, computer center, athletic fields.

Trustees: 30 members: Chairman: William

History, Mathematics, Modern Languages, Music, Philosophy, Physical Education, Physics, Political Science, Psychology, Religious Studies.

Interdisciplinary Programs: American Studies, Asian Studies, Earth and Space Sciences, Third World Studies, Urban and Regional Studies, Women's Studies.

Enrollment: 1086 Hobart students and 693 William Smith students drawn from more than 30 states and a number of foreign countries.

Total: 1779

Alumni/ae: More than 12,000

Graduate Study: 40% of the Class of 1974 are currently pursuing graduate or professional study.

Faculty: 105 full-time equivalents, 80% of whom hold Ph.D.'s.

Consortium Program: One of the 15 members of the Rochester Area Colleges.

Admissions Requirements: High school credits: 4 units of English, 3 units of math

Academic Calendar, 1975-76

| Fall Term | Freshmen arrive Sept. 4 Classes begin Sept. 8 | |
|--------------|---|-----------------------|
| | Fall recess begins Nov. 21 | |
| Winter | Classes resume Dec.1 | |
| Term | Christmas recess begins Dec. 19 | |
| | Classes resumeJan. 5 | |
| | Winter recess begins Feb. 27 | |
| Spring | Classes resume March 22 | |
| Term | Spring term ends June 2 | |
| | Term Winter Term | Winter Classes resume |

Inquiries

Additional information may be obtained from:

Commencement June 6

Phone: (315) 789-5500

Write: Hobart and William Smith Colleges

(2 algebra and 1 geometry, plus trigonometry in the case of potential math and science majors), 2 years of a modern or classical language, 1 lab science. Test scores: S.A.T. and Achievement Test in English Composition/or A.C.T.

Admission Deadlines: Applications are due by February 15 with an interview strongly recommended by March 1 to assure an April 15 reply date. Early decision candidates must submit their applications by December 1 to assure a January 1 reply date. Matriculating students must submit a \$250 deposit by May 1 to guarantee their place in the incoming class.

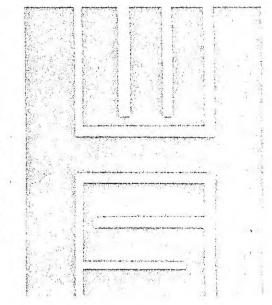
Deferred Admissions: Matriculated students may delay their entrance from 1 term (3 months) to 6 terms (2 years) upon notification of the appropriate Admissions Office.

Application Fee: \$15

Expenses: Tuition: \$3,290; Room and Board: \$1,515.

Scholarship Dollars Available: \$500,000.

Hobart and William Smith Colleges 1975-1976 In Brief



UNIVERSITY-NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

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

ADVISORY COUNCIL

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Minutes of Meeting held December 6-7, 1976 at Scripps Bldg. T-29 and the Hotel LaValencia

The following were present for all or part of the meeting:

Advisory Council

Others

| Dr. | R. | Dugdale, Ch. Barber | 5/77* 5/79 | Johrde Stetson |
|-----|----|------------------------|---------------|-------------------|
| Dr. | D. | Frankenberg | 5/79 | |
| Dr. | G. | Gross | 5/78 | ÿ |
| Dr. | G. | Keller | 5/77* | |
| Dr. | J. | Martin | 5/79 | |

Capt. T.K. Treadwell 5/78 Dr. W. Wooster, Ch. UNOLS, ex-officio, annual

The attached agenda was adopted with minor modification. Certain items were deferred until the second day, but for chronological sake are reported here as they appeared on the agenda.

- 1. The minutes of the A/C meeting September 1-2,1976, were adopted, as written.
- 2. The draft agenda was adopted, with additional items being offered by M. Johrde which are reported on under item 13. Several applications in hand are included under item 6.
- 3. Frankenberg Letter. Discussion on this item inevitably drew in other agenda items. There appeared general agreement that ship scheduling at present is a relatively inefficient operation. Result was that a regional method is to be tried and is reported on under item 10.
- 4. EASTWARD as an NOF. Dr. Barber agrees generally with M. Johrde's letter of 17 August 1976 to Dr. Dugdale, which states EASTWARD's operation is not now significantly different from other UNOLS vessels.

However, the user constituency is unhappy over this change in status. They feel it would spell an end to block-funding among other dire prophecies. It was left that Duke University would reply to Dr. Dugdale.

Dr. F. Webster, V.-Ch. UNOLS, ex-officio, annual

^{*} Term on A/C expires

5. BLM's Use of Fleet. It was pointed out that BLM has no means of participation in our scheduling processes.[It was noted BLM is currently chartering GYRE on Gulf Coast for use on Georges Banks. This involves roughly 50 days of travel to gain 30 days on station.]

It is noted that they will be invited to attend the meeting February 24, 1977, of multi-ship operators and agencies as reported under item 10.

6.1 Role of Associates. Discussion resulted in appointment of a subcommittee headed by Dr. Gross to include Drs. Frankenberg, Keller, and Webster. Their charge is to examine or develop criteria for members, associate members, with respect to voting and election rights, recommending changes to the charter. A memo by Capt. Dinsmore (Dec. 3, 1976) was distributed and sets forth history of the Associate Member category.

Merits of block-funding were discussed. Applicants may not have a clear idea of same. It was defined briefly as a single OFS grant for R/V support.

6.2 University of Delaware has made application for full membership in UNOLS. Dr. Wooster, to whom this proposal was addressed, formally requested the A/C to consider it. Discussion centered on whether Delaware has significant federal funding and exception was taken to a request on page 12 of this proposal that their vessel be considered first in assignment of ship time for all federally supported research in the area of the upper mid-Atlantic.

As is true of other members, the business of selling one's ship is that of the operator. M. Johrde pointed out that R/V funding preceded UNOLS. UNOLS membership does not guarantee funding. Some former members have dropped out, (e.g. Fla. State, Nova, Stanford) when funding ceased.

Upshot: Dr. Wooster will write a letter to Mr. Trabant, President, which will quote charter and also address their exceptional request on p. 12.

Dr. Dugdale will write a letter to Mr. Trabant requesting information on the proposed schedule and funding for the next year.

6.3 The applications of Hobart & William Smith Colleges (Geneva, NY) and SEA (Woods Hole, MA) were deferred, pending the

report of Dr. Gross' subcommittee on membership.

The section

- 7. Evolving Role of A/C. Discussion related somewhat to the previous item. It was then voted to go into executive session.
- 8. Exec. Sec. Election Procedure. As the Charter is unclear as to procedure, the Secretary distributed an outline for comment. A history of what had transpired seemed called for and will be prepared for use by a subcommittee headed by Dr. Gross, with Drs. Dugdale and Webster, which will report to the A/C February meeting.
- 9. West Coast R/V Time. As a result of the September A/C meeting, letters were sent to Drs. Keller (OSU), Fisher (SIO), and Rattray (U. Wash.) requesting background information. In OSU's case, it appears to Dr. Keller, new on the scene, that surplus R/V time results from a shift from block-funding to non-block-funding.

Dr. Fisher also responded verbally. He feels there is enough sea-going Staff at SIO to keep their vessels occupied, but their funding didn't permit them to go to sea at the required level. He offered the thesis that the larger programs (CUEA, ISOS, etc.) took a chunk "off the top". He noted MELVILLE was being used by CUEA under Dr. Knowlin--not considered Scripps' work.

T. WASHINGTON is laid up at Guam in hopes of Andaman Sea work. He mentioned ONR support for last three years has been primarily for land-based research. He felt with more data being generated per day at sea nowadays that it tended to sustain more land-based work.

Dr. Rattray's reply was distributed and indicates his concern. It was noted Dr. Hickey's program was not easy to schedule, and that she couldn't have T.G.THOMPSON because it couldn't be there to do her work. M. Johrde offered "we're underfunded for ships, not science." Barber offered there appears to be a greater user constituency on the east coast. Institutional problems lead to surplus time and this is dictated by hard facts. It was noted that there is pressure from agencies to use other R/Vs, e.g. Drs. Gregg on DE STEIGUER, Hickey on CAYUSE or WECOMA.

Pattern emerging appears to be one resulting from divergence of funds into large programs coupled with ONR R/V support dwindling as their support for land-based research increases.

It is uncertain how UNOLS can help, unless it gets into recommending re-assignment of ships. Again, it was noted BLM might help by purchasing ship time.

Dr. Wooster: There is a cloud on the horizon larger than a man's hand-bears watching.

10.1 Long Range Scheduling. Regional "forecasting" meetings

were set up as follows to review and plan for 1978, 1979, 1980.

- 10.2 East Coast, to be organized by Dr. Frankenberg 21 January 1977 probably in No. Carolina. To include Gulf Coast. Special address to problem of accommodating seasonal studies.
- 10.3 West Coast, to be organized by Dr. Keller 31 January 1977, Seattle. Attendees: U. of Alaska, OSU, U. of Washington, MLML.
- 10.4 Multi-ship operators with agencies, to be organized by Dugdale 24 February 1977, Washington, DC, at NSF. List of invitees would include, but not limited to:

U. of Hawaii
LDGO
U. of Miami
O.S.U.
S.I.O.
Texas A&M
U.R.I.
U. of Washington
W.H.O.I.

BLM - F. Monasterro IDOE - F. Jennings NSF - Greenfield NOAA/FGGE - E. Epstein ONR - N. Ostenso or G. Hamilton DPP/PROBES - G. Llano

11. LOS Workshop, Wooster Paper, Knauss Mtg. The recommendations developed in the report "Workshop on Problems of Scientific Research in the 3rd U.N. LOS Conf." (Miami, Jan.'76) were available as well as Dr. Wooster's paper "Possible Action by U.S. Oceanographic Institutions to Facilitate Their Conduct of Marine Scientific Research in Distant Waters," and Dr. Knauss' proposal for an OPC-OSB-UNOLS meeting.

After discussion, it developed that Dr. Wooster would write to Dean Knauss suggesting a delay in such a meeting until fall of 1977, after the next LOS session. In this way, old ground might be avoided.

A subcommittee to be headed by Dr. Wooster, with Capt. Treadwell, Messrs. Erb and Stetson with possibly a representative from a data depository, was formed to study UNOLS' adoption, in whole or in part, the Workshop recommendations.

- 12. Next Meeting was set for February 24-25, 1977, in Washington, DC, at NSF. Note first day has been committed to ship forecasting.
- 13.1 Other Business. M. Johrde introduced Newsletter #7 dated 28 October 1976, copy appended.
 - 13.2 Also mentioned was an upcoming study of UNOLS similar to

- 13.3 She spoke of recent legislation passed re committees in Washington which encompasses any committee advising the government. Incorporation offers the only immunity from this open meeting law.

 13.4 Nominating Committee for candidates to replace Drs.

 Dugdale and Keller for 3 years torms will be and keller for 3 years torms will be and to be a second to be a se
- 13.4 Nominating Committee for candidates to replace Drs.

 Dugdale and Keller for 3 year terms will be appointed by Dr.

 Wooster. The Secretary shall prepare a list of past A/C members for his use. A letter should be written to operators and non-operators requesting names, with attention to geographic spread.

The meeting adjourned at 1500.

ACKNOWLEDGEMENT

The Advisory Council would like to express thanks and appreciation to Capt. R. P. Dinsmore, who has served as Executive Secretary for UNOLS since inception. We wish him fair winds in his new position at Woods Hole.

Thomas Stetson

Thomas Stetson
Executive Secretary
UNOLS

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 MEETING
0900 February 24-25, 1977
National Science Foundation
1800 "G" Street, NW, Washington, DC 20550

DRAFT AGENDA

0900 Thursday, February 24th, Room 511, NSF

The entire day is to be devoted to the ship-use forecasting meeting with representatives from the blue-water operators and agencies as announced January 5th.

0900 Friday, February 25th, Room 642, NSF

- Accept minutes of December 6-7, 1976 meeting
- Adopt agenda for this meeting
- Ship forecast meetings Post mortem
- Reports from Committees studying the following may be in order:
 - (a) UNOLS Charter amendments
 - (b) Nominating Committee
 - (c) Distant Water Research, facilitation of
- Hobart & William Smith Colleges' application for Associate Membership:
 a recommendation from the Committee is sought.
- University of Delaware, application for membership: a recommendation from the Committee is sought.
- Review of N.O.F.s
 - (a) ALPHA HELIX Nominations for Review Committee are solicited
 - (b) ALVIN "Continued Role of ALVIN" Report Stanford Workshop
 - (c) EASTWARD Status?
- Develop program for Annual Meeting
- Any other business that may properly be acted on
- Set time/date for next meeting

REMINDER - PLEASE BRING PORTFOLIO TO MEETING

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

5 JAN 1977

TO: Distribution

SUBJECT: Ship-use Forecasting Meeting

The UNOLS Advisory Council has recommended the scheduling of a meeting for blue-ocean operators together with representatives from federal agencies.

This meeting will be held 0900, February 24, 1977, at the National Science Foundation, Room 511, 1800 "G" Street, NW, Washington, D.C. As with the UNOLS Annual Meeting, travel costs will be borne by participants.

The object of the meeting is to provide a forum for informal discussions of developing ship operating schedules for 1978 and beyond. We hope to build on the results of two previous regional meetings. One will be held January 21 for the East and Gulf Coasts' operators, and the other January 31 for West Coast operators.

The Council feels that this series of meetings will provide a useful, informal exchange of scheduling information, discussion of projected programs, and hopefully, accommodation of unmet scientific needs. Perhaps under-utilization of vessels, either UNOLS or Federal, can be rectified. To achieve these goals, attendees should be prepared to discuss their plans in so far as they are known.

Inevitably, discussions will touch on 1977 problems so we suggest, because of the meeting's size, that attendees bring their 1977 schedules and 1978 plans in distributable form. There will be a blackboard, but obviously all schedules and plans cannot be placed on it. Participants will want to make notes on their copy of this material.

It has been observed ex-post facto by the Council that discussions such as above sometimes generate scheduling arrangements different from those originally conceived, and that there is a potential benefit derivable from identification of such situations prior to actual scheduling.

We hope you can attend. Please inform this office if you do not plan to do so.

Sincerely yours,

Thomas Stetson Executive Secretary UNOLS

TS/sjw

DISTRIBUTION:

Directors of the following Institutions with copies to ship scheduling contact:

University of Hawaii Lamont-Doherty University of Miami Oregon State University Scripps Texas A&M U.R.I. University of Washington W.H.O.I.

ERDA

Dr. David H. Slade Acting Manager, Environmental Programs Div. of Biomedical & Environment Res. ERDA Washington, D.C. 20545

USGS

Dr. Robert Rowland U. S. Geological Survey Mail Stop 915 Reston, Virginia 22092

EPA

Mr. Sam Williams
EPA
Office of Research & Development
401 M Street S.W.
Mail Code 683
Washington, D.C. 20460

ONR 800 N. Quincy Street Arlington, Virginia 22217

Dr. Ned A. Ostenso, NORDA Liaison Office Mr. F. P. Diemer, Code 102-05

NSF 1800 G Street, NW Washington, DC 20550

Dr. Peter Wilkniss, DSDP, Dept. Earth Sciences

Dr. Duwayne M. Anderson, NSF/DPP

Dr. Robert E. Wall, Oceanography Section

Ms. Mary K. Johrde, NSF/OFS Mrs. Sandra Toye, NSF/OFS Mr. Robert B. Elder, NSF/OFS

Dr. Richard Greenfield, NSF/GARP, Atmos Sci. Div

Dr. Feenan Jennings, OCE/IDOE Dr. George Llano, NSF/DPP/PROBES

USCG Ocean Operations Division Washington, DC 20590

Commander Martin J. Moynihan

BLM U. S. Dept. of Interior Bureau of Land Management (732) 1800 C Street, NW Washington, DC 20240

Dr. David Allen Dr. Francis Monastero

NOAA

Captain Sidney C. Miller NOAA Office of Fleet Operations Washington Science Center 1801 Executive Blvd. Rockville, Maryland

Dr. Richard Kolf Program Dir. for Grants Management Office of Sea Grant, NOAA 3300 Whitehaven St., NW Washington, DC 20235

Dr. Rex Fleming, Director FGGE Project Office NOAA Bldg. 5 6010 Executive Blvd. Rockville, Maryland 20852

UNIVERSITY - NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

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

February 1, 1977

Assistant Secretary of State Oceans and International Environmental and Scientific Affairs Department of State Washington, D. C. 20520

Dear Sir:

I refer to Ambassador Irving's letter of 17 January addressed to me as Chairman of the University National Oceanographic Laboratory System (UNOLS) and requesting the views of UNOLS on proposed guidelines differentiating between scientific research and fishing as referred to in the Fishery Conservation and Management Act of 1976. Since no meetings of UNOLS as an organization are scheduled before May 1977, it has not been possible for me to provide UNOLS comments in time for your deadline of 28 January.

The Advisory Council of UNOLS is scheduled to meet on 24-25 February, and I have asked that Council to discuss your request. Should specific comments be formulated at that time, I shall have them forwarded to you promptly in the hope that they will be useful even after the deadline.

In the meantime, I have participated in recent discussions of the matter by the Ocean Sciences Board and the Ocean Policy Committee, and personally subscribe to the views expressed by the latter body in the response it prepared on 28 January.

Yours sincerely,

Warren S. Wooster

cc: T. Stetson

Please send copies to members of the Advisory Council. WSW:hn I believe a discussion during their meeting will be

more useful than circulating UNOLS members.



ASSISTANT SECRETARY OF STATE

OCEANS AND INTERNATIONAL ENVIRONMENTAL AND SCIENTIFIC AFFAIRS WASHINGTON, D.C. 20520

January 17, 1977

wed 21/2/77

Dr. Warren S. Wooster
Chairman, University-National
Oceanographic Laboratory
System
Institute for Marine Studies
University of Washington
Seattle, Washington 98195

Dear Dr. Wooster:

Section 3(10) of the Fishery Conservation and Management Act of 1976 excludes scientific research from the provisions of the Act. It does this by including the following in the definition of "fishing": "Such term does not include any scientific research activity which is conducted by a scientific research vessel." However, the Act neither defines scientific research nor scientific research vessel.

Accordingly, it is necessary to adopt policy guidelines to differentiate between excludable scientific research, including fisheries research, which may involve the taking of some fish (broadly defined in the Act), and fishing, which requires a license under the Act. The policy guidelines would also be applicable to proposed U.S. research within foreign fishery conservation zones. Enclosed is a copy of proposed policy guidelines, and an explanatory statement, for this purpose.

Its projected use is three-fold: (1) advising U.S. scientists and U.S. fishermen concerning the U.S. policy and implementation of the scientific exclusion in Section 3(10) of the FCM Act; (2) a base for deciding whether or not to seek clearance for a particular operation off a foreign coast; and (3) possibly to inform foreign governments concerning our policy. The guidelines and statement might be edited for such use, depending on the exact circumstances in each case.

If UNOLS has any comments on the proposed guidelines and statement, I would appreciate having them by January 28 in view of the imminence of the effective date of the Act. I would also appreciate it if the proposed guidelines and statement are kept in confidence.

Sincerely,

Frederick Irving

Enclosure:

As stated.

- A. Scientific research, excluded from the provisions of P.L. 94-265, includes fisheries research. For purposes of implementing the FCM Act, scientific research is deemed to include activities conducted from a scientific research vessel by a government entity or bona fide scientific research institution such as:
 - collection of data concerning population
 dynamics or the state of a stock or species;
 - 2) surveys of the abundance or distribution of larvae, young of the year, or a stock or species generally;
 - 3) the physical and chemical properties of the marine environment, including the availability of nutrients;
 - 4) the collection of samples of plankton, larvae, or immature fish with no commercial value;
 - only in such small quantities as to be of value only in a laboratory or museum, and in any event which are not sold; and
 - 6) all other types of scientific research which does not bear on fisheries (NOTE: This is not

intended to exclude coastal state control of research concerning the continental shelf and undertaken there.)

- B. However, activities such as the following regardless of who conducted by are not considered to be scientific research, and do not come under the statutory exclusion unless undertaken as part of a joint research project in cooperation with the United States:
 - experimental fishing for the purpose of determining whether fisheries resources might be available for commercial exploitation;
 - 2) scouting to locate schools or stocks of fish for purposes of commercial exploitation;
 - 3) fishing carried out for the purpose of training fishermen;
 - 4) taking commercial quantities of fish, except by agreement;
- 5) the conducting of tests of fishing gear.
 Such activities are considered to be fishing and require a permit.
 - C. A scientific research vessel is:
 - (I) a vessel which has been built for, modified for use for, or for the time being used for oceanographic survey or

research (including physical, chemical, geological, and biological research or combinations thereof, and directly related activities) by a governmental entity or bona fide scientific research institution, and is not being used for any of the activities mentioned in paragraph B.

- (II) A vessel which has been built or modified as a fishery research vessel by a governmental entity or bona fide scientific research institution, is not capable of storing or retaining commercial quantities of fish, and is not being used for any of the activities mentioned in paragraph B or similar activities, or
- (III) A vessel which has been built, modified, or chartered as a fishery research vessel by a governmental entity or bona fide scientific research institution, is not used for any of the activities mentioned in paragraph B or similar activities, and any fish taken and retained are not sold or in any way

exchanged for goods or services of value.

D. Any vessel which actually takes fish, attempts to take fish, or engages in any activity which can reasonably be expected to result in the taking of fish, regardless of quantity, may be boarded and inspected to verify that it qualifies for the scientific exclusion, provided, however, that prior notice may be given to the coastal state of scientific research activities involving the taking of fish and the coastal state may concur, either expressly or tacitly.

AREA OF APPLICATION

D. The foregoing applies with respect to the fishery conservation zone, that is, a zone contiguous to the territorial sea of the United States, the inner boundary of which is a line coterminous with the seaward boundary of each of the coastal States, and the outer boundary of which is a line drawn in such a manner that each point on it is 200 nautical miles from the baseline from which the territorial sea is measured.

EFFECTIVE DATE

E. The foregoing shall apply with respect to the fishery conservation zone of the United States effective 1 March 1977.

EXPLANATORY STATEMENT

A. This paragraph indicates the kind of activities, including fisheries research, which are covered by the scientific exclusion of the Fishery Conservation and Management Act.

It is clear from the construction of Subsection 3(10) that "scientific research" includes "fisheries research", which in turn includes at least some taking of fish.

However, it is also clear that all activities which may be undertaken at sea by an organization such as NMFS are not covered by the exclusion. For instance, the Conference Committee Report states specifically that it "does not consider the conducting of tests of fishing gear to be scientific research within the meaning of the bill."

The problem of defining excluded scientific research under the Act is complicated by the fact that some fishery-oriented research does not include the taking of any fish while some scientific (non-fishery) research may involve taking samples of fish. An extreme example is a case where scientists involved in serological research take fish but only because fish are a convenient cold-blooded animal from which to get blood samples for their research.

Since there does not appear to be an easy way of defining scientific research which includes the taking of fish (as broadly defined in Section 3(6) of the Act)

as such, this paragraph must be read in conjunction with paragraph B to get a full picture of what activities are considered to be scientific research as against those considered to be fishing.

NOTE: Consideration was given to simplifying the definition problem by restricting "scientific research" (1) to that which does not involve placing nets or other fishing gear in the water, or (2) to that which does not involve placing commercial fishing gear in the water. However, this was rejected because biological research and such things as the taking of plankton samples with dip nets would be blanketed in with controlled fishing activities. The FCM Act obviously contemplated from the placement of the exclusionary clause that some fish (very broadly defined in the Act) would be caught as part of excludable scientific activities and these definitions would not allow this. Moreover, there could be an enforcement problem in determining whether gear in the water is commercial or not, and in any event, organizations such as NMFS may be using commercial type gear for research which is otherwise excludable as scientific.

B. This paragraph indicates the kind of activities which some might construe as being scientific research, at least at times, but which are considered to be fishing and require a license unless pursuant to an agreement.

- C. The paragraph defines "scientific research vessel", which is not defined in the Act. It addressed the question of fishery (i.e., scientific) research vessels which may be indistinguishable from fishing or support vessels, either superficially or actually, by providing that such vessels as defined therein are scientific research vessels.
- D. In spite of the foregoing, it may not be possible from remote observation to determine if a vessel taking fish is engaged in excluded scientific research or is engaged in regulated fishing. This paragraph indicates that such a vessel may be boarded to check. Presumably the Coast Guard would issue more detailed guidance concerning such boarding. If the vessel is found to be engaged in scientific research it would be thanked and sent on its way. If found to be fishing it would be dealt with accordingly. Unless some verification could be made, illegal fishing might be conducted under the claim that it was scientific research.

The paragraph goes on to provide (but not require) that prior notice may be given to excludable scientific research which involves the taking of fish, and concurrence may be given, either expressly or tacitly, that the research is scientific and that it may be conducted without

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running afoul of controls on fishing. Such consultations could ease the enforcement problem. Moreover, with regard to U.S. activities off other coasts which we consider to be scientific but the other nation may consider to be controllable fishing, such consultations may allow us a means whereby the research may be conducted without trouble without specifically requesting permission and thus conceding jurisdiction.

By avoiding any mandatory provisions, we avoid asserting or recognizing any jurisdiction beyond that included in the Act, but allow for dealing with some problems.

D. This paragraph provides that the foregoing would be applicable to the U.S. zone established by the Act.

NOTE: We would consider the similarity of foreign zones which are or may be established in considering whether clearance would be sought for particular U.S. research activities in such zones. However, this does not mean that we would assert freedom of fisheries research within 12 nautical miles of other nations, since we have recognized foreign jurisdiction over fisheries research within 12 miles since 1966 and it may be expected that an LOS treaty will codify such jurisdiction. For the United States, on the other hand, the regime discussed above would apply from 3 to 200 miles effective 1 March

1977 since the exclusive U.S. jurisdiction over fisheries research between 3 and 12 miles is repealed by the Act. Consideration was given to maintaining that the guidelines would apply either (1) from 3 to 200 miles for all countries, or (2) from 12 to 200 miles for all countries. These were rejected because of the political problems which might arise from asserting that we would no longer recognize foreign jurisdiction over fisheries research between 3 and 12 miles, and because the Act specifically repealed the U.S. jurisdiction between 3 and 12 miles and substituted a different regime between 3 and 200 miles which would, inter alia, protect freedom of scientific research in such zone.

E. The policy guidelines would be effective for the U.S. zone established by the Act when enforcement becomes effective for the U.S.

NOTE: The policy guidelines will be utilized in considering whether clearance would be sought for U.S. research which might involve the taking of fish within 200 miles of other nations where such zones exist. The guidelines would be utilized with respect to foreign zones when established. However, they would be utilized only to the extent foreign jurisdiction is recognized by the U.S.

January 24, 1977 Faces

ROUGH DRAFT

Dr. Richard Dugdale, Chairman UNOLS ADVISORY COUNCIL

Dear Dick:

The Atlantic and Gulf Coast UNOLS Institutions met at the Baltimore-Washington International Airport to discuss ship scheduling, primarily for research operations in coastal waters. Twelve individuals representing eight institutions and two federal agencies were present for the meeting which lasted from 9:00 A. M. to 1:30 P. M. (see Attachment A)

In my view and I think the view of others the meeting was a success and bodes well for the scheduled meeting on the West Coast.

Ship schedules were discussed and information was exchanged about long range planning for CY 1978 and beyond. The information exchanged included some ship use possibilities by various institutions. Although the focus was on coastal work, much of the discussion involved the open ocean work which is easier to schedule significantly in advance. Also the distant water research tends to control the ship time available for work in coastal ocean areas, especially on the larger, more sophisticated vessels.

After a prolonged and wide-ranging discussion, the group concluded that the discussion had been profitable and recommended that similar meetings be held each year to exchange ship scheduling information in the early part of the year (January - February) prior to the UNOLS Annual Meeting (May - June). Future meetings should also be conducted on two levels: (1) a regional level and (2) a national level for open ocean scheduling. The emphasis would be on bringing together ship operators and potential ship users.

Next the group discussed current ship needs. The group concluded that the present ship scheduling and funding mechanisms do not serve the needs of researchers seeking ship time for work in coastal waters. New mechanisms need to be developed to permit faster responses to oceanographic research opportunities. For example, researchers needing periodic sampling of coastal areas are not easily accommodated in ship schedules established one or more years ahead of time which call for the ship to be away from the region for months. Futhermore, the present scheduling arrangements do not facilitate investigations of natural events such as major floods or abnormal ice conditions or to large scale releases of materials such as the Nantucket Shoals oil spill. The group was not able to investigate this problem in detail owing to the lack of time. But it might be worthwhile to establish a small subcommittee of the UNOLS Advisory Council to investigate the problem and develop possible solutions.

The federal agency representatives indicated that the research vessel needs of their agencies are not easily met by the present UNOLS operations. It was obvious that more effective communication is needed with federal, agencies active or potentially active in coastal ocean research such as the U.S. Geological Survey, parts of ERDA, and parts of NASA. Through such improved communication the academic research fleet may be able to obtain needed funding to avoid ship layups by proving support for other agency operations.

The idea was explored that the agencies should communicate their ship needs to the UNOLS office rather than to individual institutions since the UNOLS fleet as a whole might be able to provide the needed ship time with greater ease and certainty than any individual UNOLS Institution.

Finally, the opinion was expressed that the trend in coastal ocean research

is toward the use of larger and more sophisticated research vessels capable of providing working space for 20 or more scientists and modern laboratory facilities. Also some of the year-round studies will require large vessels for safe operations in winter months.

The group recommended that the federal agencies likely to need ship time should be invited to the UNOLS Advisory Council meeting scheduled for February 24-25, 1977. The agency representatives should be asked to indicate any needs for large blocks of ship time that UNOLS might be able to provide. Also the meeting should explore means of establishing closer communications between the federal agencies and the UNOLS office at the working level. At the same meeting an effort should be made to explain to the agency representatives how UNOLS works and how it might be of service to the agencies.

M. Grant Gross

ATTACHMENT A

Atlantic-Gulf Coast UNOLS Institutions
Baltimore-Washintgon International Airport
21 January 1977

ATTENDEES

| - | Name | Institution | Telephone |
|-----|--------------------------|--|--------------|
| 1. | M. Grant Gross, Chairman | Johns Hopkins University | 301/338-8258 |
| 2. | R. Sam Gerard | Lamont-Doherty Geological Observatory | 914/359-4338 |
| 3. | Thomas Stetson | UNOLS, Woods Hole Oceanographic Institution | 617/548-1400 |
| 4. | Dick Barber | Duke University | 919/728-2400 |
| 5. | Frank W. Barvenik | Brookhaven National Laboratory | 516/345-3063 |
| 6. | Bob Secton | University of Rhode Island | |
| 7. | Harold Screen | Johns Hopkins University | 301/338-8256 |
| 8. | R. P. Dinsmore | Woods Hole Oceanographic Institution | 617/548-1400 |
| 9. | T. K. Treadwell | Texas A & M | 713/845-7211 |
| 10. | Jim Gibbons | University of Miami | 305/350-7223 |
| 11. | Bob Oldale | U. S. Geological Survey | 617/548-8700 |
| 12. | H. H. Whaley | Johns Hopkins University | 301/269-0983 |
| - | | | 9 |

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

Regional Ship-Use Forecast Meeting Marine Sciences Building, University of Washington 0900 January 31, 1977, Room 123

Synopsis of Meeting

The meeting was convened at 0910 by Prof. Wooster, UNOES Chairman and was chaired by him and T. Stetson.

One of the valuable attributes of an informal meeting such as this is that as each in turn presents his institution's or agency's current situation, plans, problems, and solutions, others are made aware and often are helped or can help.

The intent here is not to set down the exact nature of these exchanges because of their ephemeral nature, rather, this synopsis records what the participants perceived to be their regional problems.

The participants each gave a presentation of their present situation and future plans of their staff in so far as known. The most recent ship schedules were exchanged. UNOLS distributed an updated list of institutional ship contacts.

The agency representatives presented summaries of their situation with particular emphasis on problems encountered in chartering UNOLS vessels.

Dr. C. Lorenzen gave a resume of the report prepared by L. R. Glosten Associates on the preliminary design of a 134' coastal research vessel.

Comment was made that if such a vessel were put in service as a regional facility, it really couldn't serve in that capacity as far as U. of Alaska was concerned.

Reason: If based at Seattle, serving Oregon and Washington, serving Alaska would be uneconomical. The report does not provide for a vessel which can operate in the temperature ranges usually encountered. Noted also was lack of ice sheathing at bows.

T. Stetson announced the Navy was looking for scientific users for the submersible NR-1, as her future is uncertain.

Summary of Regional Concerns

- 1. Delays in funding major programs disrupt normal scheduling procedures (e.g. PROBES on THOMPSON).
 - 2. Impact of major programs on lone investigators:
 - a) Regional R/Vs absorbed by major programs don't "stay home" (e.g.: CAYUSE and WECOMA to Peru on CUEA)

b) Locals can't get to sea because of (a).

c) Is availability of ship-time funding dictating whether the

lone investigator receives science funding?

- d) The agencies should retain enough administrative flexibility to transfer ship-time funds at one institution to another if a funded investigator can't be accommodated at home but could be elsewhere. If vessels were sufficiently block-funded more logic would enter the planning of their deployment.
- 3. Regional NOAA programs have a current need for ship time that isn't being met either by own vessels or UNOL's. The need is expected to increase.
- 4. Daily rates of UNOLS vessels present problems when used by agencies. (A possible solution: establish a base rate comparable to the Federal fleet and develop a list of add-ons as do some commercial operations).
- 5. There appears to be room for expanded accommodation of U. S. scientists in Canadian programs.
- 6. If a regional coastal vessel is built it probably can't satisfy Alaskan research needs, as mentioned earlier.

Additional Factors with Impact on Regional Scheduling

1977

ERDA looking for ship time

 NOAA high priority is nautical charting; beyond this has need for time in Puget Sound and is in "buying mode" for one month blocks, generally

Dr. Ewart's waste management program is required to use DE STEIGUER (\$1K/day). Next year will request THOMPSON. May work near Midway

78-180.

1978

- BLM (not represented): use expected to increase after 1978

- Alaskan local (academic) useage expected to increase demand for ACONA
- BIOTRANS will need R/V off S. California
 U. of Washington in PROBES, April-July

- THOMPSON may be in Caribbean

- POLYMODE needs 30 days

- Dr. Ewart sees increased ship time need for waste management project (2 cruises per 1 year, 1 mo. each)

Attached: List of Attendees

Meeting Invitation w/Dist.

Regional Ship Use Forecasting Meeting Attendees

31 January 1977 at U. of Washington

| Bob Burns Dolly Dieter | PMEL (NOAA) U. of Alaska | (206) 442-5262 (907) 224-5261 |
|---|---|--|
| Mark L. Holmes | USGS (Seattle) and U. of Washington | (206) 442-1995 |
| Carl Lorenzen Alan G. Lewis George Pickard Charles B. Miller John H. Martin Bill Templeton Francis A. Richards Thomas Stetson Warren S. Wooster Thomas C. Royer | U. of Washington Inst. of Oc., U. of B. C. Inst. of Oc., U. of B. C. O.S.U. Moss Landing Marine Labs ERDA, Pacific Regional Coord. U. of Washington UNOLS U. of Washington I.M.S., U. of Alaska | (206) 543-8597 (604) 228-3626 (604) 228-2482 (503) 754-4524 (408) 633-3304 (509) 942-3631 (206) 543-6487 (617) 548-1400 (206) 543-7004 (907) 479-7835 |

Institute for Marine Studies HA-35 UNIVERSITY OF WASHINGTON SEATTLE, WASHINGTON 98195

February 1, 1977

Mr. William Erb
Bureau of Oceans and International
Environmental and Scientific Affairs
Department of State
Washington, D. C. 20520

Dear Bill:

Thank you for your letter of 19 January and your comments on the proposed UNOLS role in facilitating distant water research. I don't believe that the fundamental responsibility of the State Department in dealing with foreign governments is questioned. When permission is obtained for a U.S. vessel to conduct research in foreign waters, it is the U.S. Government through the State Department that has made the commitment. The operating institution then has the primary responsibility to carry out the terms of its obligation. UNOLS, while not having made the governmental commitment and not having the primary responsibility, could play an important role in assisting both the State Department and the collective of affected institutions in ensuring that the obligations are met in a timely, responsible, and systematic fashion.

I hope we don't come to a situation where State and UNOLS operate parallel systems for monitoring the fulfillment of obligations. It should be possible for UNOLS to do this on behalf of both State and the member institutions: If the government ship operators can be tied into a common system, all the better.

By copy of this letter, I am requesting Tom Stetson to distribute copies of your comments to members of the UNOLS Advisory Council. I hope you can participate in our discussions later this month.

Yours sincerely,

Warren S. Wooster

WSW:hn

cc: T. Stetson



DEPARTMENT OF STATE

Washington, D.C. 20520

BUREAU OF OCEANS AND INTERNATIONAL ENVIRONMENTAL AND SCIENTIFIC AFFAIRS

January 19, 1977

Dr. Warren S. Wooster Institute for Marine Studies HA-35 University of Washington Seattle, Washington 98195

Dear Warren:

I have reviewed your draft--Proposed UNOLS Role in Facilitating Distant Water Research -- and have the following informal comments. I agree, very definitely, that UNOLS should play an active role in facilitating distant water research. However, its role regarding fulfillment of obligations, as described, is also one which I believe should be assumed as a responsibility by the U.S. Government. Obligations, conditions, and foreign participation under the LOS Treaty are viewed by governments as part of an official agreement. ure of an institution to comply with an agreement would affect our relationship with that country and could result in repercussions to the entire U.S. research fleet, both private and public. For this reason it appears that the Department must monitor clearance obligations but this would not preclude UNOLS from operating a parallel system or from providing policy and procedural guidance to create a system in which the Department has final responsibility.

If UNOLS attempted to monitor and enforce obligations, its credibility with the universities might be seriously hampered. To continue its function of coordinating, it needs the full trust and confidence of its members. A monitoring role would tend to give it a regulatory function and probably discourage communication and openness.

UNOLS might feel that a parallel system to one operated by the Department would be useful as a self-monitoring technique. This might be beneficial to both

parties by providing a check and also a focal point within UNOLS for information on requirements of foreign countries, participation arrangements, etc. The schedule of procedures, as presently devised, with some modifications, would permit a parallel monitoring system. This would, of course, involve extra resources and duplication of effort to some extent, which might not be an excessive luxury if UNOLS has a requirement for the information. Therefore, a decision should be made concerning the intended role of UNOLS and its relationship to its members before defining its role and responsibility regarding obligations.

The set of procedures that we do finally develop should apply to public vessels as well as private, and therefore, all concerned should have an input in developing the procedures. It may work out, as in the case of the clearance request forms, that UNOLS and the Department will develop the procedures and then later seek the concurrence of government agencies. Other alternatives would be to have concerned agencies such as NOAA, Navy and NSF to (1) participate on the UNOLS sub-committee, (2) form a sub-committee in PIPICO to address the problem, (3) or have a combined UNOLS/PIPICO group. I feel strongly that UNOLS should play a key role in developing the policy and procedures since it represents the major operating force in foreign waters.

The role of the national data depositories, if any, is difficult to define because we do not yet know for sure, specifically what will be required. I foresee U.S. scientists on a research cruise making informal agreements with the host country scientists to provide certain types of data or reports. The governments probably would not be involved and the preliminary data would be transferred informally. A cruise report and a final data report(s) would be transferred government to government, and these alone might constitute compliance from the host government's viewpoint, in addition to specified obligations. Other obligations taken on by scientists, which were not specifically recorded, could be left to the good faith and conscience of the scientists or an attempt might be made to monitor these also as they do effect our relationships.

UNOLS may see a role for the data centers in forwarding data reports to the foreign, and other ministries of host countries and having the data center inform the Department. This would result in some benefit to the Department but we would still have to record the action and monitor its completion anyway. The data centers might be able to develop a system for keying all data results to a particular cruise, assemble a distribution list including all countries from which clearance was received, and a computer summary of when and to whom all reports were mailed.

Under Further Obligations, the comments on Article 61 concerning responsibility may be unnecessary. The restriction on publication probably is unconstitutional, and if so the U.S. could not accept it. It is also doubtful that institutions would accept it, although individual scientists might. The Department probably would not enter into an agreement where publication was restricted and could not take part in negotiations concerning permission to publish if an agreement was entered into privately by an institution.

Rather than ramble on further, I will wait until you look over my comments on UNOLS and the Department's responsibility concerning obligations before commenting on the actual procedures you have proposed. This is not an attempt to avoid getting down to specifics, but rather an attempt to have the procedures reflect the desired responsibility of the parties involved.

Best regards,

William Erb

Research Vessel Clearance Officer

SIXTH ANNUAL MEETING

- 0900 A.M. WEDNESDAY, MAY 26, 1976, ROOM 2008, NEW EXECUTIVE OFFICE BUILDING 17TH STREET NEAR PENNSYLVANIA AVENUE, N.W., WASHINGTON, D.C.
 - 1. INTRODUCTION BY DR. JOHN A. KNAUSS; CHAIRMAN UNOLS
 - 2. REPORT BY EXECUTIVE SECRETARY

 The Executive Secretary will report on the activities of UNOLS over the past year; ship operations support, Associate Membership, Inspection Program and other UNOLS matters.
 - 3. REPORT BY DR. RICHARD C. DUGDALE; CHAIRMAN UNOLS ADVISORY COUNCIL

 Dr. Dugdale assumed the duties of Chairman of the Advisory Council in May 1975. He will report on the activities and current recommendations of the Advisory Council.
 - 4. SHIP SUPPORT Outlooks for current and future ship support funding by Federal Agency program managers.
 - 5. LONG RANGE PLAN FOR UNIVERSITY SHIPS

 The final draft of the Long Range Plan will be distributed before the meeting. It is hoped that

 Members will approve and adopt this plan to represent the position of UNOLS on future ship requirements.
 - 6. SHIP DESIGN STUDIES Last year UNOLS approved the need for conceptual design studies for new types of ships. A report will be presented for discussion on the progress and future of these studies.
 - SAFETY STANDARDS
 Previous draft standards are in final form. There should be a discussion on how these standards apply and will be used and updated.
 - 8. UNIFORM COST ACCOUNTING

 Several members have suggested new ideas in this area. A working paper will be distributed summarizing the various proposals.
 - 9. MANNED UNDERSEA VEHICLES AND HABITATS

 Several members have expressed a concern over the role and future of university research in this area.

 The ALVIN Review Committee and Advisory Council are preparing recommendations, but the opportunity exists now for a braod discussion on this subject.
 - 10. LAW OF THE SEA CONFERENCE

 John Knauss will give an update on the current conference and its outlook. Also the potential role

 of UNOLS in the developing regulations and obligations regarding research clearances.
 - 11. OTHER TOPICS

 This is an opportunity for representatives of research institutions as well as individual scientists and Federal representatives to raise and discuss issues concerning matters of mutual interests.

SHIP SCHEDULING SESSION

- 0900 A.M. THURSDAY, MAY 27, 1976, ROOM 2008, NEW EXECUTIVE OFFICE BUILDING 17TH STREET NEAR PENNSYLVANIA AVENUE, N.W., WASHINGTON, D.C.
 - . The ship scheduling meeting is an informal session for UNOLS Members to meet, compare and discuss problems involved with 1977 ship schedules.
 - . The Meeting is open to all persons interested and especially to scientists who have ship time needs in 1977 and wish to present their needs to shop operators.
 - . Preliminary ship schedules have been developed by UNOLS Members and collated sets will be distributed and available prior to the meeting.

BUSINESS MEETINGS

- 1. ELECTION OF OFFICERS: The UNOLS Charter requires the election or re-election of the Chairman and Vice-Chairman annually.
- ELECTION OF ADVISORY COUNCIL: Expiring terms and vacancies require the election of at least three new members of the Advisory Council. Nominations are required in writing to the UNOLS Office prior to the Meeting.
- 3. APPOINTMENT OF EASTWARD, ALPHA HELIX & ALVIN REVIEW COMMITTEES: In accordance with the Charter, the Advisory Council will submit a slate of nominees for the expiring terms in these committees
- 4. OTHER UNOLS BUSINESS

Dest, by Barber 25 F 5 25

Duke University Marine Laboratory BEAUFORT, N. 3TH CAROLINA

February 23, 1977

Dr. Richard C. Dugdale, Chairman UNOLS Advisory Council Bigelow Laboratory for Ocean Science McKown Point West Boothbay Harbor, Maine 04575

Dear Dick:

I would like to respond to the suggestion that Mary Johrde, Head of the Office for Oceanographic Facilities and Support, made concerning a change in status of Duke University's research vessel, EASTWARD. The suggestion made by the National Science Foundation caused some consternation within the University because, although the logic of Mary's suggestion was quite clear and well-documented, a parallel set of comments and rumors also emanated from the Foundation suggesting that this change in status would be very detrimental for the continued operation of the Oceanographic Program at Duke. This occurrence emphasizes the rather fragile nature of the network of public confidence that a shared facility operates on. I believe the climate of confidence has been repaired to some degree, but it is clear that we must carry out our necessary evolutionary changes through a process of clear and widely distributed communication.

In particular, the University concurs with the four points that argue in favor of evolving the present National Facility towards a "typical" shared institutional facility. I would like to restate these in the order of importance as we see them:

- 1) The change in sources and amounts of Federal ship operations support funds requires that EASTWARD compete on the same grounds as other ships to schedule funded programs and thereby to secure operating funds. The persistence of the incorrect belief that NOF's automatically receive full support from NSF has made it unduly difficult for the EASTWARD management to broaden and stabilize its support base.
- 2) The marine operations group at Duke has outgrown its origins as a single-discipline, relatively unsophisticated training support unit: EASTWARD is a well-run, well-equipped ship, capable of supporting the full normal range of oceanographic operations for a ship of her size.
- 3) The Duke University marine program and those of the University of North Carolina and other nearby institutions have increased in strength and vitality. They now regularly account for 40-60% of EASTWARD's schedule for the conduct of solidly-supported research projects of staff members. This level of "core use" is fully comparable to that of a number of UNOLS institutional vessels.

4) The success and general acceptance of the "UNOLS concept" has opened access to Federally-supported institutional vessels to qualified scientists throughout the larger research community: EASTWARD is neither more nor less "available" than any number of other UNOLS ships.

We concur with the National Science Foundation that the EASTWARD can serve the oceanographic community as well, or better, as a "regular" part of the U.S. academic oceanographic fleet rather than in her present status. The Duke University oceanographic community is particularly sensitive to the truth that the ship must compete on an equal ground with the other ships in the U.S. fleet, but that the NOF status has compromised to some degree our ability to attract and develop the strongest possible user clientele involving both NSF scientists and scientists supported by other agencies. With regard to the point emphasized in number 2 above, the Cooperative Oceanographic Program at Duke University is confident that we can compete well for the scientific user community with equivalent sized vessels in the U.S. academic fleet. We are particularly committed to the idea that this competition for the user clientele is a healthy aspect of U.S. oceanography that should be encouraged.

An aspect of the suggested change that we would like to unequivocally emphasize is that Duke University would continue to operate the EASTWARD as a shared facility and that we would continue the University program that is presently designated the Cooperative Oceanographic Program. The ship scheduling committee would continue to be made up of a collection of prestigious scientists from the U.S. academic oceanography community; the change being that these individuals would now be responsible to the University rather than to the UNOLS Advisory Council.

It seems it would be appropriate to accompany this change in status of EASTWARD with a change in the UNOLS charter with regard to National Oceanographic Facilities. The charter states that:

1. In addition to regular institutional UNOLS facilities there may be identified National Oceanographic Facilities, defined as those facilities, specialized and otherwise, that are made available for the use of qualified scientists from any institution and the use of which shall be determined by a UNOLS Review Committee.

It seems that the initiative that the National Science Foundation is making in this case is that they wish National Oceanographic Facilities to have as their major property the uniqueness of the Facility, not the availability. The logic is, of course, is that all UNOLS facilities are "available" so that uniqueness remains the sole functional criterion for setting these facilities apart from any others in the UNOLS assemblage. In the same vein, under paragraph number 3, the purpose of the National Facilities should be limited to:

- To provide for the support and use in academic research of specialized and unique facilities.

Since we are presently in the midst of charter revision, it seems appropriate to tackle this in concert with the change in status of the EASTWARD.

The final, and very important, thought is that the change in status suggested by the National Science Foundation has provided the stimulus for Duke University and the two Universities of the North Carolina system to evaluate their long-range oceanographic plans with regard to ship needs. One potential plan that seems to have great merit is to have Duke University join with the University of North Carolina at Chapel Hill and North Carolina State University and submit a proposal to the National Science Foundation for a vessel of the ISELIN class to replace the EASTWARD. Such a vessel might functionally replace both the EASTWARD and North Carolina's ageing vessel, the ADVANCE, and service the local ERDA, Sea Grant and BLM contracts as well as the NSF users presently using EASTWARD. Consolidating the State's oceanographic ship budget, the other agencies' ship funds and the NSF support that would be coupled to the proportion and number of NSF users would provide a support base for a ship that was both larger and more modern than the EASTWARD. The logic of this particular approach seems quite pervasive to me as Director of Duke's Oceanographic Program, but I must emphasize that it, at present, does not have the formal concurrence of Duke University or the other North Carolina universities.

In summary, the response of the University to the National Science Foundation's suggestion is that we concur with the logic arguing that the EASTWARD be "graduated" to the status of an institutional facility and feel that this move, made in concert with the appropriate changes in the UNOLS charter, would strengthen the Cooperative Oceanographic Program.

Sincerely,

Richard T. Barber Director Cooperative Oceanographic Program

RTB:sjs

February 22, 1977

Scientific Research in the Fishery Conservation Zone

Scientific research, including fisheries research, is specifically excluded from the term "fishing" in Section 3(10) of the Fishery Conservation and Management Act of 1976. It should be noted, however, that the following specific activities are considered to be fishing within the meaning of the Act, and therefore require a permit issued in accordance with Section 204:

Any activity involving the catching, taking or harvesting of fish in commercial quantities, or the use of gear capable of catching, taking, or harvesting fish in commercial quantities, including:

- 1) the conducting of tests of fishing gear; or
- 2) fishing carried out for the purpose of training fishermen

Fisheries research which assists in the conservation and management of the stocks, and the identification of the fishery resources of the Fisheries Conservation Zone is encouraged. With this in mind, the specific activities outlined above, when undertaken in full cooperation with the United States, shall not be deemed to be fishing within the meaning of the Act.

CONTENTS of Packet:

Draft Agenda - 2/24

Minutes of A/C Meeting 12/6-7/76

Notice of Ship-Use Forecasting Meeting w/distribution

Synopsis of Meeting, 1/31/77, U/Washington

Letter to Sec. of State from W. Wooster, 2/1/77 re guidelines on fishing and scientific research

Letter to W. Wooster, 1/17/77 from Frederick Irving w/ attachment

Letter to Erb from W. Wooster, 2/1/77 attached to Erb letter to Wooster, 1/19/77

Application for Membership, Hobart and William Smith Colleges

Sixth Annual Meeting

List of Ships and contacts

Status of A/C and R/C

Letter to Dugdale from Trabant, 1/25/77

| OPERATOR | NAME | LOA (FT) | BUTLT CONVERTED | SCIENTS | OWNER | SHIP SCHEDULING CONTACT |
|---|--------------------------------------|-------------------------|------------------------------|---------------------|--------------|---|
| University of Alaska Institute of Marine Science Fairbanks, Alaska 99701 | ACONA | 85 | 1961 | 9 | NSF | Dr. J. R. Moore Director (907) 479-7531 |
| Scripps Institution of Oceanography | MELVILLE | 245 | 1969 | 25 | NAVY | Capt. Robert B. Haines, |
| P. O. Box 1529 | SCRIPPS | 95 | 1965 | 8 | | Ship Scheduler, Code A-010 |
| La Jolla, California 92037 | T. WASHINGTON ALPHA HELIX | 209 133 | 1965 1966 | 17 12 | NAVY | (714)452-2840 |
| University of Hawaii | | | 1075 | | | Mr. J. Frisbee Campbell |
| Hawaii Institute of Geophysics 2525 Correa Road | KANA KEOKI | 156 | 1967 | 15 | | Scientific Coordinator for Marine Operations |
| Honolulu, Hawaii 96822 | MOANA WAVE | 174 | 1973 | 13 | NAVY | (803) 948-7654 |
| Oregon State University School of Oceanography Corvallis, Oregon 97331 | CAYUSE WECOMA | 80 177 | 1968 1975 | 8 14 | NSF | Ms. Mary Jo Gutierrez Ship Scheduling Officer (503) 754 \$\frac{4}{2}\$147 |
| University of Southern California | | | | | | Mr. E. B. Veek |
| Allan Hancock Foundation University Park Los Angeles, California 90007 | VELERO IV | 110 | 1948 | 12 | | Associate Director for Facilities (213) 746-6068 |
| University of Washington | T.G. THOMPSON | 209 | 1965 | 20 | NAVY | Dr. Alyn C. Dexbury |
| Department of Oceanography Seattle, Washington 98105 | HOH ONAR | 65 65 | 1943/1962 1954/1963 | 6 | NAVY NAVY | Director of Operations (206) 543-0444 |
| Lamont-Doherty Geological Observatory Columbia University Palisades, New York 10964 | CONRAD VEMA | 209 197 - | 1962 1923/1953 | 15 14 | NAVY | Dr. Dennis Hayes (914) 359-2900 Ext. 470 |
| Duke University Duke Univ. Marine Laboratory Beaufort, North Carolina 28516 | EASTWARD | 118 | 1964 | 15 | | Dr. Richard T. Earber Director, Cooperative Oceanographic Program (919) 728-2111 |
| Skidaway Institute of Georgia University System of Georgia P. O. Box 13687 Savannah, Georgia 31406 | BLUE FIN | 72 | 1972/1975 | 8 | | Dr. David W. Menzel, Director (912) 352-1631 |
| Johns Hopkins University Chesapeake Bay Institute Baltimore, Maryland 21218 | R. WARFJELD | 105 | 1957 | 10 | | Mr. Harold W. Screen, Jr. Director of Operations (301) 338-8755 |
| Rosenstiel School of Marine & | GILLIS | 209 | 1962 | 19 | NAVY | Mr. James Gilbons, |
| tmospheric Sciences University of Miami | ISELIN | 170 | 1972 | 13 | | Operations Manager (305) 350-7223 |
| 10 Rickenbacker Causeway Miami, Florida 35149 | CALANUS | 64 | 1970 | 6 | • | |
| hiversity of Rhode Island Graduate School of Oceanography Kingston, Ehode Island 02881 | ENDEAVOR | 177 | 1976 | 16 | NSF | Mr. Robert Sexton Director of Scientific Services (401) 792-6197 |
| Coxas ASH University Department of Oceanography College of Geosciences College Station, Texas 77843 | GYRE | 174 | 1973 | 18 | NAVY | Capt. T. K. Treedwell Marine Operations Office (713) 845-7211 |
| uiversity of Texas P. O. Box 7999 Austin, Texas 78712 | LONGHORN | 80 | 1971 | 10 | | Dr. C. A. Eurk Director (512) 471-4816 |
| oods Hole Oceanographic Institution Woods Hole, Massachusetts 02543 | ATLANTIS 11 KNORR OCEANUS DSRV ALVIN | 210 245 177 15 | 1963 1970 1975 1964 | 25 25 13 3 | NAVY NSF | Dr. Arthur E. Maxwell Provost (617) 548-1400 Ext. 250 |

UNOLS

STATUS OF ADVISORY COUNCIL & REVIEW COMMITTEES (with dates of investiture/expiration)

CHAIRMAN: W. S. Wooster, U. of Washington (elected annually)

V. CHAIRMAN: T. F. Webster, W.H.O.I. (elected annually)

Executive Subcommittee: Ch. & V. Ch. of UNOLS, Ch. of A/C, Exec. Secretary

ALPHA HELIX REVIEW COMMITTEE ADVISORY COUNCIL (3 yr. term) *V. Alexander, U. of Alaska E. Chin, U. of Georgia W. M. Sackett, TAMU J. F. Case, UCSB 7/74-6/77 *R. C. Dugdale, Bigelow Lab 7/74-6/77 M. G. Gross, JHU R. T. Barber, Duke T. K. Treadwell, TAMU 7/74-6/77 7/74-6/77 7/75-6/78 7/76-6/79 7/75-6/78 7/75-6/78 H. B. Steinbach, Oceanic Fdn. J. D. Costlow, Duke H. W. Jannasch, W.H.O.I. D. Frankenberg, U. of N.C. G. H. Keller, OSU J. H. Martin, MLML 7/76-6/79 7/73-6/79 7/76-6/77 7/76-6/79 7/76-6/79 7/76-6/79 O. Holm-Hansen, UCSD, ex-officio 11/76-6/79 Chairman & V. Ch. are ex-officio members ALVIN REVIEW COMMITTEE EASTWARD REVIEW COMMITTEE *A. F. Richards, Lehigh R. R. Hessler, UCSD G. H. Keller, OSU *D. Frankenberg, U. of N.C. D. K. Atwood, AOML/NOAA 7/73-6/76 2/75-6/78 7/75-6/78 2/75-6/77 J. H. Carpenter, U. of Miami L. S. Land, U. of Texas, Austin R. Lasker, NMFS/NOAA L. P. Atkinson, Skidaway 2/75-6/77 7/75-6/78 K. K. Turekian, Yale 2/75-6/78 G. D. Grice, W.H.O.I. 2/75-6/78 R. W. Corell, U.N.H. 7/76-6/79 D. E. Hayes, LDGO 7/76-6/79 M. C. Gregg, U. of Washington 7/76-6/79 A. E. Maxwell, WHOI, ex-officio 2/75-6/78 7/76-6/79 7/75-6/78 7/76-6/79 7/76-6/79 R. C. Beardsley, W.H.O.I. R. T. Barber, Duke, ex-officio H. T. Rossby, U.R.I. 7/73-6/79 7/75-6/78

NOTE: Regardless of Annual Meeting date, elected members take office 1 July of that year. Please call any omissions or discrepancies to the attention of the Exec. Secretary.

Chairperson

UNIVERSITY OF DELAWARE NEWARK, DELAWARE 19711

OFFICE OF THE PRESIDENT 132 HULLIHEN HALL PHONE: 302-738-2111

* 1 × 1

January 25, 1977

Dr. Richard C. Dugdale, Chairman UNOLS Advisory Council Bigelow Laboratory of Marine Sciences W. Booth Bay Harbor, ME 04575

Dear Dr. Dugdale:

Thank you for your letter of December 14, 1976 requesting additional information about the research vessel CAPE HENLOPEN. As you know, the vessel arrived in Delaware on April 4, 1976 and as a consequence our operating information for 1976 begins on that date and ends on December 31, 1976. As you might expect our scheduling and operating procedures have not yet become fully established and like any new and sophisticated system we are still in a "teething" stage. At this moment we are expecting delivery of the fourth laboratory van momentarily and will soon install paravane anti-roll devices.

Now let me turn to your specific questions and respond to each in turn.

- 1. A detailed operating history of the CAPE HENLOPEN in calendar year (CY) 1976 is given in attachments la, lb, and lc. These three tables include the number of days at sea, for what purpose, names of chief scientist and participating scientists with their home institutions.
- 2. Operating costs and sources of funds for 1976 are listed in Attachments 2a and 2b respectively. The daily rate for the CAPE HENLOPEN consists of two parts. The first part includes all fixed costs such as crew salaries, insurance, dry docking, maintenance, contribution to a replacement fund, and overhead. The second part includes all crew overtime beyond a certain base allowance included in the fixed costs, fuel, lube oil, and food. For calendar 1976 the fixed costs were distributed over a 260 day operating year resulting in a daily rate of \$1,145.

Experience has shown that two matters require revision for calendar year 1977. The first is that in a start up period 200 charter days per year is a more realistic period over which to distribute the fixed operating costs. Second, experience has shown that scientists who charter a vessel such as the CAPE HENLOPEN often work around the clock for the duration of their charter. A crew of six cannot maintain continuous service safely under these conditions. Therefore, a seventh crew person has

been included in the fixed part of the rate and an eighth crew person is available as a pass through charge if the planned work at sea requires the added help. These two changes will bring the 1977 daily rate to \$1580 plus expendables which average \$600 to \$800 per day.

- 3. The schedule for 1977 is not yet fixed. Attachment 3 lists the promising charter prospects for 1977. To be most useful to the academic community and to sponsoring agencies we believe that there should be some flexibility in the schedule with commitments firming up 60 to 90 days in advance of going to sea. Clearly, in 1977 there is an opportunity for UNOLS to encourage use of the CAPE HENLOPEN by researchers requiring ship time in the mid-Atlantic area.
- 4. Projected operating costs for 1977 are given on Attachment 4. These are based on 200 days per year charter use with University of Delaware sources making up any deficits during this start up period. We do not now see any mode of operation which might develop which could not be accommodated under the daily rate schedule planned for 1977.

Finally, you asked for a comment on the extent to which the increases in fuel costs and actual operating experience that have occurred since the vessel was designed are expected to modify the original concept of operation. Most of this has been answered under items 2 and 4 above. Clearly 260 days per year for the first year was too high and we have reduced our target to 200 days for 1977. We believe, however, that the features included in the system for fast turnaround time in port (i.e., self loading and unloading of the laboratory vans and four vans to provide on shore preparation for sea) and economical operation at sea will permit us to eventually achieve approximately 260 days per year at sea.

Experience to date shows that the CAPE HENLOPEN can operate for most purposes in the 5' - 6' seas for which she was designed and for some operations she can work comfortably into 7' - 8' seas. The paravane roll stabilization equipment which we will install during the next few weeks is expected to increase her ability to work in at least one higher sea state and to provide a more stable platform in all sea states.

Increased fuel costs will have no effect on the daily fixed rate charged for the CAPE HENLOPEN since fuel is not included in that part of the rate. Since fuel is billed as an expendable each chief scientist can adjust his speed, length of charter, and cruise plan to optimize the work done by the CAPE HENLOPEN and minimize his cost. We plan in 1977 to develop a little computer program for charters to use to optimize their cruise plan. It will include such variables as probability of weather or research delays and such constants as the value of time of the scientists on board and fuel cost vs. speed.

In conclusion, I can say without reservation that the CAPE HENLOPEN has proven to be a first-rate vessel for the service she was intended. She has many features found only in larger vessels but at a much lower daily cost.

Further, she has the additional feature of speed between port and the work area which allows scientists aboard to collect their data in minimum time and at minimum cost and to return to their on shore laboratories for sample analysis and data processing, though this can be done aboard the CAPE HENLOPEN.

I hope that this letter provides sufficient information for your Advisory Council to base its recommendation. I understand from Dean Gaither that you attended Dr. Mooers' workshop in Lewes in mid-January and had an opportunity to inspect the CAPE HENLOPEN and the on shore support facilities. As you can see, we have set out to develop a first rate marine operating base for regional academic use at Lewes. We hope that UNOLS will make full use of what the University of Delaware has provided for the east coast academic community, particularly since our actions have been in direct response to the 1972 UNOLS sub-committee recommendation that special coastal zone/continental shelf vessels are unique and are needed.

If you have any further questions, please call me directly at (302) 738-2111 or Dean Gaither (302) 738-2841. We will be pleased to discuss any facet of our plans for the CAPE HENLOPEN for 1977.

Sincerely yours,

E. A. Trabant President

Enclosures

cc: Dr. W. S. Gaither

Dr. W. S. Wooster

Mr. T. R. Stetson

XC - M. Johncle, NSF/OFS

OPERATING HISTORY R/V CAPE HENLOPEN CY 1976 (April 4, 1976 - December 31, 1976)

| Cruise No. | Charter Dates | Days at Sea | Sponsor | Purpose |
|------------|-----------------------|----------------|---------------------------|---|
| 76-1 | 4/14 | 1 | College of Marine Studies | Crew Training |
| 76-2 | 4/15 | 1 | College of Marine Studies | Faculty Orientation |
| 76-3 | 4/19- 4/23 | 3 | U. S. Naval Academy | Measure Performance Parameters |
| 76-4 | 4/26- 4/30 | 5 | Colgate Univ./Union Col. | Geological/Geophysical Study |
| 76–5 | 5/12- 5/14 | 3 | NSF | Evaluation of Vessel for Scientific Tasks |
| 76-6 | 5/19-21 5/24, 25 | 3 | U. S. Naval Academy | Continue Measurement of Performance Parameters |
| 76-7 | 5/26- 6/4 | 8 | NSF | Hull Performance Evaluation |
| 76-8 | 6/21 - 6/23 | 3 | College of Marine Studies | Trips for Potential Donors |
| 76-9 | 6/30 | 1 | NSF | Evaluation for Scientific Tasks |
| 76-10 | 7/7- 7/8 | 2 | Brookhaven National Labs | Equipment Testing |
| 76-11 | 7/11- 7/13 | 3 | National Marine Fish. Ser | Fish larvae Studies |
| 76-12 | 7/27- 8/7 | 12 | EPA | Recovery of Waste Containers |
| 76-13 | 8/16- 8/18 | 2 | NSF | UNOLS Evaluation of Vessel |
| 76-14 | 8/23- 8/26 | 4 | VIMS/BLM | Obtain baseline survey data |
| 76-15 | 8/30 | 1 | College of Marine Studies | Trip for Potential Donors |
| 76–16 | 8/31- 9/10 | 9 | E G & G | Geophysical Exploration |
| 76-17 | 9/20 | 1 | NSF | Fuel Consumption Measurements |

| ruise No. | Charter Dates | Days at Sea | Sponsor | Purpose |
|-----------|------------------|----------------|---------------------------|-------------------------------|
| 7.6–18 | 9/22 | 1 | NSF | Evaluation of Scientific Task |
| 76-19 | 10/2 | 0 | Marine Science Consortium | Demonstration of Equipment |
| 76-20 | 10/4- 10/8 | 2 | College of Marine Studies | Drydock in Baltimore |
| 76-21 | 10/27 | 1 | College of Marine Studies | Engine Testing |
| 76-22 | 11/3 | 1 | NSF | Evaluation of Scientific Task |
| 76-23 | 11/5- 11/6 | 2 | NSF | Evaluation of Scientific Task |
| 76-24 | 11/8- 12/3 | 19 | VIMS/BLM | Obtain baseline Survey data |
| 76–25 | 12/13- 12/22 | 2 | College of Marine Studies | Drydock to repair propellers |
| | ises: | 25 | | |

CHIEF SCIENTIST(s) AND INSTITUTION FOR EACH CRUISE (April 4, 1976 - December 31, 1976)

| Cruise No. | Chief Scientist(s) | Home Institution |
|------------|--------------------|---|
| 76-1 | None | |
| 76-2 | K. S. Price | College of Marine Studies, Univ. of Delaware |
| 76–3 | Neil Monney | U. S. Naval Academy |
| | N. R. Fuller, Jr. | NAVSEC, Washington, DC |
| 76-4 | C. E. McClennen | Colgate University |
| | H. Zimmerman | Union College of Schenectady University |
| 76-5 | K. S. Price | College of Marine Studies, Univ. of Delaware |
| 76-6 | N. R. Fuller, Jr. | NAVSEC, Washington, DC |
| 76-7 | D. W. Hankley | NAVSEC, Norfolk Division, Norfolk, VA |
| 76-8 | None | |
| 76-9 | C. N. K. Mooers | College of Marine Studies, Univ. of Delaware |
| 76-10 | P. Colombo | Brookhaven National Laboratory, Upton, NY |
| 76-11 | W. G. Smith | NOAA/NMFS, Sandy Hook Laboratory, Highlands, NJ |
| 76-12 | R. Dyer | EPA, Washington, DC |
| | S. Dexter | College of Marine Studies, Univ. of Delaware |
| 76-13 | R. Dinsmore | WHOI |
| 76-14 | D. Boesch | VIMS, Gloucester Point, VA |
| 76-15 | None | |
| 76-16 | D. Frye | E G & G, Waltham, Massachusetts |
| 76-17 | None | |
| 76-18 | C. Sarabun | College of Marine Studies, Univ. of Delaware |

| Cruise No. | Chief Scientist(s) | Home Institution |
|------------|--------------------|--|
| 76-19 | None | |
| 76-20 | None | |
| 76-21 | None | |
| 76-22 | C. Sarabun | College of Marine Studies, Univ. of Delaware |
| 76-23 | T. Church | College of Marine Studies, Univ. of Delaware |
| 76-24 | J. Kraeuter | VIMS, Gloucester Point, VA |
| | D. Boesch | VIMS, Gloucester Point, VA |
| 76-25 | None | |
| | | |
| | | * |
| | * | |
| | | |
| | | |

SCIENTISTS PARTICIPATING ON EACH CRUISE R/V CAPE HENLOPEN CY 1976 CHIEF SCIENTIST(s) ARE LISTED ON TABLE

| Cruise No. | Scientist | Institution |
|------------|----------------------|---|
| 76-1 | None | |
| 76-2 | E. Pough | College of Marine Studies, Univ. of Delaware |
| | R. Keck | College of Marine Studies, Univ. of Delaware |
| 1 | J. Tinsman | College of Marine Studies, Univ. of Delaware |
| | D. Maurer | College of Marine Studies, Univ. of Delaware |
| | R. Smith | College of Marine Studies, Univ. of Delaware |
| 76-3 | M. McCormick | U. S. Naval Academy |
| | R. Battycharia | U. S. Naval Academy |
| 76-4 | All Students | |
| 76-5 | S. Dexter | College of Marine Studies, Univ. of Delaware |
| | D. Maurer | College of Marine Studies, Univ. of Delaware |
| | E. Pough | College of Marine Studies, Univ. of Delaware |
| 1 | J. Tinsman | College of Marine Studies, Univ. of Delaware |
| | R. Keck | College of Marine Studies, Univ. of Delaware |
| | R. Sheridan | College of Marine Studies, Univ. of Delaward |
| | W. Meredith | College of Marine Studies, Univ. of Delaware |
| | G. Davis | College of Marine Studies, Univ. of Delaware |
| 76-6 | All NAVSEC Engineers | |
| 76-7 | All NAVSEC Engineers | |
| | * | |
| 76-8 | None | |
| 76-9 | S. Kupferman | College of Marine Studies, Univ. of Delaware |
| | F. Daiber | College of Marine Studies, Univ. of Delaware |
| 76-10 | S. Dexter | College of Marine Studies, Univ. of Delaware |
| | C. Wingate | Woods Hole Oceanographic Institution |
| | W. Becker | Brookhaven National Laboratories |
| 76-11 | None | |
| 76-12 | Dr. Donald Reish | California State University of Long Beach |
| | Andrew Soutar | Scripps Institute of Oceanography |
| | Al Lukas | Brookhaven National Laboratories |
| | Linda Graham | Woods Hole Oceanographic Institution |
| | Pam Polloni | Woods Hole Oceanographic Institution |
| | Phil Bedard | Nova University - Florida |
| | Dr. Akihiko Ito | Japan Atomic Energy Research Institution |
| | Peter Columbo | Brookhaven National Laboratories |
| | Walter Becker | Brookhaven National Laboratories |
| . 10 | Bruce Heczen | |
| | brace neczen | Lamont-Doherty Geological Observatory, Columbia University |

| Cruise No. | Scientist | Institution |
|------------|--|--|
| 76-1.3 | T. K. Treadwell J. Biggons J. Leiby T. Stetson F. Alexander R. Elder | Texas A & M University University of Miami Woods Hole Oceanograhpic Institution UNOLS National Science Foundation National Science Foundation |
| 76-14 | J. Krauter J. Von Montfraus B. Diaz D. Maurer P. Smyth J. Tinsman | Virginia Institute of Marine Science Virginia Institute of Marine Science Virginia Institute of Marine Science College of Marine Studies, Univ. of Delaware Virginia Institute of Marine Science College of Marine Studies, Univ. of Delaware |
| 76-15 | None | |
| 76-16 | Dr. Gary Williams Dr. Lloyd Falk Charles Hopper Art Gerokoulis | E G & G DuPont Company DuPont Company E G & G |
| 76–17 | None | |
| 76-18 | All Students | |
| 76-19 | None | & ∩ •• |
| 76-20 | None | |
| 76-21 | None | |
| 76-22 | All Students | |
| 76-23 | All Students | |
| 76-24 | J. Musick P. Smyth J. Von Montfraus D. Benner J. Coluocoresses | Virginia Institute of Marine Science Virginia Institute of Marine Science Virginia Institute of Marine Science Virginia Institute of Marine Science Virginia Institute of Marine Science |
| 76-25 | None | |
| | | |
| | | |

Operating Costs (April 4, 1976 - December 31, 1976)

I. Salaries & Wages

| A. Ships Company | A. | Ships | Company |
|------------------|----|-------|---------|
|------------------|----|-------|---------|

| | 1. | Salaries | | | \$5 | 7,802.00 |
|------|---------|-----------------|---------------|------------|--------|----------|
| | 2. | Overtime (30%) |) | | _1 | 7,033.29 |
| | | | | Total | \$7 | 4,835.29 |
| | B. Mar | ine Operations | 6 | | | |
| 10 | 1. | Salaries | * | | \$ | 4,332.00 |
| | 2. | Overtime | | | | 0 |
| , | | | in the second | Total | \$ | 4,332.00 |
| | | | | | | |
| II. | Repair, | Maintenance & | k Repair | | | |
| | A. Norm | nal Maintenance | e & Repair | | \$ | 2,646.30 |
| | B. Majo | or Overhal | | | | 1,949.87 |
| | * | | | Total | \$ | 4,596.17 |
| Y | | | | | | |
| III. | Other F | Expenses | * - | | 16.6 E | |
| | A. Lube | & Fuel Oil | | | \$1 | 1,630.15 |
| | B. Food | | | | 1 | 1,462.77 |
| | C. Insu | rance | | | 1 | 0,598.60 |
| | D. Stor | es & Supplies | | | 2 | 7,364.29 |
| | E. Trav | re1 | | | | 1,253.98 |
| | F. Shor | e Facilities S | Support | | | 2,247.60 |
| | G. Misc | ellaneous (Inc | ludes Amor | ctization) | 2 | 6,727.00 |
| | H. Cons | ulting | | | * | 2,165.56 |
| | | | Total Dir | ect Costs | \$17 | 7,213.41 |
| | · | | | | | |
| IV. | Indirec | t Costs | | 4 | 1 | 7,641.25 |
| V. | Total C | perating Costs | 3 | | \$19 | 4,854.66 |
| | | | Round | led to | \$19 | 4,855.00 |

SOURCES OF FUNDS R/V CAPE HENLOPEN CY 1976

| | | | Income |
|------------|---------------------------------------|---------------------|-------------|
| Cruise No. | Sponsor | Fixed Costs | Expendables |
| 76-1 | CMS | 1,145 | |
| 76-2 | NSF Performance Evaluation | 1,145 | |
| 76-3 | U. S. Naval Academy | 5,400 | 584.93 |
| 76-4 | Colgate/Union College | 5,400 | 1,967.45 |
| 76-5 | NSF Performance Evaluation | 3,435 | 960.00 |
| 76-6 | U. S. Naval Academy | 5,725 | 465.71 |
| 76-7 | NSF | 3,435 | 543.00 |
| 76-8 | CMS | 3,435 | 343.00 |
| 76-9 | NSF Performance Evaluation | 1,145 | 281.20 |
| 76-10 | Brookhaven National Laboratories | 2,290 | 443.55 |
| 76-11 | National Marine Fisheries Service | 3,434 | |
| 76-12 | Environmental Protection Agency | 6,870 | 1,313.35 |
| 76-13 | NSF | 3,435 | 3,680.04 |
| 76-14 | Virginia Institute of Marine Sciences | 4,580 | 1,772.70 |
| 76-15 | CMS | 1,145 | 1,774.40 |
| 76-16 | EG & G | 12,595 | 777 00 |
| 76-17 | NSF Performance Evaluation | 1,145 | 4,754.09 |
| 76-18 | NSF/RANN | | 229.80 |
| 76-19 | Marine Science Consortium | 1,145 | 221.40 |
| 76-20 | CMS | 1,145 | 703.60 |
| 76-21 | CMS | 2,290 | |
| 76-22 | NSF | 1,145 | 077.00 |
| 76-23 | NSF | 1,145 | 377.20 |
| 76-24 | Virginia Institute of Marine Sciences | 2,394 | 690.50 |
| , 0 2 1 | Virginia institute of Marine Sciences | 21,755 | 9,881.65 |
| | TOTALS | 96,778 | 30,644.57 |
| | TOTAL (Rounded |) 127, | 423 |
| | | | |
| | University of D | elaware <u>67</u> , | 432 |
| | Total Revenues | \$194, | 855 |

SCHEDULE FOR R/V CAPE HENLOPEN CY 1977 (January 1, 1977 - December 31, 1977)

At present there are no firm commitments or scheduled time for 1977. The following list consists of the anticipated users for 1977 based upon present information. These prospective charters are listed in decreasing order of certainty of attainment. Full UNOLS membership would encourage other academic researchers to schedule the Cape Henlopen for their projects.

- 1) Virginia Institute of Marine Sciences (VIMS) 60 days. VIMS has verbally expressed their desire to continue using the Cape Hanlopen for part of their seasonal cruises to obtain baseline data within the Baltimore Canyon Trough Area for BLM. Total level of funding of this BLM program is unknown.
- 2) Inter-institutional Users 20 days. The following institutions have all expressed a strong interest in obtaining at least five days of shiptime this year as part of this established user group:

Colgate University Columbia University (Lamount-Doherty Geological Obs.) U. S. Naval Academy University of Delaware University of Rhode Island

Membership for each institution, except University of Delaware is contingent on availability of research funds for anticipated projects. Actual members should be firm by April 1977. The University of Delaware plans on using funds from the educational budget, rather than a specific research project, to support their five days of ship use as a member of this group.

- 3) T. Church 5 days on NSF Grant OCE74-12512-A02. Total amount of funds is \$41,000. Dr. Church is requesting these five days aboard the Cape Henlopen but they have not yet been approved by NSF.
- 4) R. Biggs 11 days on NSF Grant ENV76-10618. Total amount of the grant is \$160,000. These sea days are pending the outcome of discussions between the Principal Investigator and the NSF Program Manager concerning details of the field verification program. Number of days needed and their schedule should be determined by March 1, 1977.
- 5) R. Sheridan 15 days on NSF Proposal No. 77-00045. Total amount \$34,190. This proposal has not been acted on by NSF. A decision is expected by March 1, 1977.

6) U.S.G.S. - 150 days. A proposal has been submitted to USGS in response to their RFP for use of a research vessel on an intermittent basis throughout 1977. Selection of the successful bidder has not yet been announced. Chances of success appear good due to the suitability of the Cape Henlopen to meet their expressed needs.

ESTIMATED OPERATING COSTS CY 1977 (January 1, 1977 - December 31, 1977)

| I. | Salaries | 8 | Wages |
|----|----------|---|-------|
| | D. C | | 11000 |

| Τ. | balalies a wages | |
|------|--|------------------------|
| | A. Ships Company | |
| | 1. Salaries | \$ 79,543 ¹ |
| | 2. Overtime (30%) | 23,863 |
| | Total | \$103,406 |
| | B. Marine Operations | |
| | 1. Salaries | \$ 46,000 ¹ |
| | 2. Overtime | 0 |
| | Total | \$ 46,000 |
| II. | Repair, Maintenance & Alterations | |
| | A. Normal Maintenance & Repari | \$ 28,000 |
| | B. Major Overhaul | 2,000 |
| | Total | \$ 30,000 |
| III. | Other Expenses | 1 |
| | A. Lube & Fuel Oil | \$124,000 ² |
| | B. Food | 30,400 ³ |
| | C. Insurance | 13,0004 |
| | D. Stores & Supplies | 15,000 |
| | E. Travel | 2,000 |
| | F. Shore Facilities Support | 13,000 ⁵ |
| | G. Miscellaneous (Includes Amortization) | 79,8006 |
| | Total Direct Costs | \$456,606 |
| IV. | Indirect Costs | 21,046 ⁷ |
| V. | Total Operating Costs | \$477,652 |
| VI. | Miscellaneous Data | |
| | A. Days at Sea | 200 |
| | B. Average Daily Cost Rate | 2,388 |
| | | |

UNIVERSITY OF DELAWARE

Operating Costs 1977 Footnotes

- 1. Salary increases average 8% at the University of Delaware.
- 2. Fuel & Lube Oil costs estimated as follows for CY 1977:

Lube Oil

\$4,000/yr.

Average fuel expended during each operational day: 1360 gal./day

1360 gallon @ .44/gal. = \$600/day

1360 gal./day X 200 days = 272,000 gal./yr.

272,000 gal. X \$.44/gal. = 120,000

Total Fuel & Lube 0il for CY 1977 = 124,000

- 3. \$8/day per person; 19 persons for 200 days = 30,400
- 4. Insurance: P & I only

Hull insurance provided by the State of Delaware

5. Annual Facilities Support Costs CY 1977:

6,500 Sewage pumping and removal

6,500 Utilities

\$13,000 Total

6. Miscellaneous for CY 1977

| Petty Cash | \$2,000 |
|------------------------|---------|
| Medical Expenses | 500 |
| Miscellaneous Expenses | 1,000 |
| Dock Fees | 1,000 |
| Inspections | 500 |
| | |

Subtotal \$5,000

Amortization (20 yr. life) $\frac{74,800}{$79,800}$ Charged only on days charter

7. Indirect Costs are:

25% of I. for 1977 charged only on days under charter

UNIVERSITY OF DELAWARE

NEWARK, DELAWARE 19711

OFFICE OF THE PRESIDENT 132 HULLIHEN HALL PHONE: 302-738-2111

November 9, 1976

Dr. Warren Wooster, Chairman
University National Oceanographic
Laboratory System
Institute of Marine Studies
University of Washington
Seattle, WA 98195

Subject: Full UNOLS Membership for the University of Delaware

Dear Dr. Wooster:

I am writing to transmit a proposal by the University of Delaware for full membership in the University National Oceanographic Laboratory System (UNOLS). We recognize that our request is for your organization to accommodate a new type of vessel and a new operating support situation. We believe however that the nation, and our upper mid-Atlantic region in particular, faces new problems and new challenges for research along our coasts and on the continental shelf. We also believe that we must not wait for the federal government to first identify and then to meet our every need, but rather, we must think for ourselves and then act with both prudence and determination.

In 1970 the University of Delaware Trustees saw the clear need for concentration on oceanographic problems and opportunities of the coastal zone. It acted by establishing the graduate College of Marine Studies. In 1974 it saw the clear need for a new type of versatile and economical vessel to serve as an oceanographic platform for research and educational use on the continental shelf. It acted by providing the \$1.535 million in venture capital necessary to build the R/V Cape Henlopen. Since the University of Delaware is a private non-profit educational institution it can charter the Cape Henlopen to a variety of scientific uses. These include:

- 1. University of Delaware marine researchers.
- 2. Researchers from regional colleges and universities.
- 3. Units of government.
- 4. Industry and other private organizations.

The University of Delaware is prepared to manage the vessel and accommodate different mixes of these four classes of users as demand requires each year. This means to UNOLS that we do not expect traditional

federal "block funding" to meet all or even a majority of the annual operating costs of the Cape Henlopen. What we do ask is that the University of Delaware be recognized as a full member of the community of academic oceanographic institutions which has constructed and now operates a modern and complete oceanographic facility for the use of and benefit of the entire oceanographic research community working in the upper mid-Atlantic offshore area.

This action is part of a long term plan by the University of Delaware to establish a center of excellence in coastal and continental shelf marine studies in a region where the need clearly exists.

We feel strongly that it is important for UNOLS first to recognize what the University of Delaware has done to make these facilities available to the oceanographic research community and second to recognize that new patterns of funding for research vessel acquisition and operation should be encouraged, particularly when national resources are becoming increasingly limited.

I look forward to your favorable action on this proposal.

Sincerely yours,

E. A. Trabant

President

Enclosure

cc: Dean W. S. Gaither

Dr. Richard C. Dugdale

Dr. Robert E. Hughes

Dr. Thomas R. Stetson