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Proceedings of a Workshop on

Procedures for Marine Scientific Activities in a Changing Environment

January 9-11, 1978

Held Under the Auspices of the
Ocean Policy Committee
Commission on International Relations
National Research Council
and
University National Oceanographic
Laboratories System

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This report has been reviewed by a group other than the authors according to the procedures approved by a Report Review Committee consisting of members of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine.

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INTRODUCTION

On January 9-11, 1978, the Ocean Policy Committee (OPC) of the National Research Council and the University National Oceanographic Laboratories System (UNOLS) convened a workshop entitled "Procedures for Marine Scientific Activities in a Changing Environment", chaired by Professor T. K. Treadwell. Held at the Scripps Institution of Oceanography, University of California, San Diego, La Jolla, California, the workshop provided an opportunity for representatives of academic institutions that operate major research vessels to review the likely nature of the regime for marine scientific research with and without a Law of the Sea (LOS) Treaty, and to consider procedures that must be developed in order to work in other nations' coastal areas and in the deep ocean in the future. Participants at the workshop are named in Appendix A. The following papers constituted a background for the meeting:

1. Comments on Part XIII, Informal Composite Negotiating Text, Articles on Marine Scientific Research, prepared by Ms. Mary Hope Katsouros, Executive Secretary, Ocean Policy Committee, National Academy of Sciences (Appendix B).
2. Proposed UNOLS Role in Facilitating Distant Water Research, prepared by Dr. Warren S. Wooster, University of Washington; member Ocean Policy Committee.

During the morning session on January 9, Mr. Norman Wulf of the National Science Foundation reviewed the status of negotiations at the Law of the Sea Conference. Focusing on the treatment of scientific research throughout the LOS negotiations, he briefly discussed the issues before the Conference, in particular, the marine scientific research issue. Mr. Blumberg of the Department of State reviewed the articles in the Informal Composite Negotiating Text that pertain to marine scientific research and offered his view on the outcome of the Law of the Sea negotiations.

The afternoon session of the first day considered the respective implications of a treaty and a non-treaty regime for the conduct of marine scientific research. The two points of view were presented by Drs. John Knauss and Edward Miles; the texts of their briefs are given in Appendices D and E.

Ms. Mary Hope Katsouros briefed the participants on the status of jurisdictional maritime claims over marine scientific research. She reported that of the 130 independent coastal States, 56, as of January 1978, have claimed jurisdiction over a 200 nautical mile maritime zone. According to her analysis (See Appendix C), at least 41 of these States claim direct or indirect jurisdiction over marine scientific research. She noted that most of these nations had not promulgated regulations for foreign scientists and institutions wishing to obtain clearances for research in the waters claimed.

During the remainder of the workshop, the participants were divided into two working groups to discuss (1) "Preparatory and Planning" and (2) "Operational and Follow Up" aspects of research cruises. Sessions of the two groups were chaired by Prof. Robert Dinsmore and Dr. David A. Ross, respectively. Each group prepared a brief summary of the remarks made at their session and these were presented to the entire workshop and discussed. Following the meeting Prof. Dinsmore and Dr. Ross consolidated their reports and presented them to an editorial committee composed of Captain Dinsmore, Ms. Katsouros, Dr. Miles, Dr. Ross, Prof. Treadwell, and Dr. Wooster. The following report is a synopsis, without attribution, of the major topics dealt with in the group discussions. The conclusions and recommendations represent a consensus, although they were not specifically approved by participants in the form presented here.

BACKGROUND

As the protracted Law of the Sea negotiations continue, several features of the proposed regime for marine scientific research are becoming evident:

1. The conduct of marine science research at sea will be subjected to increased control by coastal States. Even now, many coastal States are adopting restrictive policies regarding marine scientific research.
2. Control over research will be exercised within the 12-mile territorial sea, on the continental shelf, and to a distance of 200 miles offshore in the Exclusive Economic Zone (EEZ); limited control might be extended to the seabed beyond (the so-called Area).
3. The new regimes for marine scientific research will include obligations not previously required of marine institutions. Meeting some of these obligations will require new formalities and funding beyond that which is presently available.

Workshop participants, although aware of continuing negotiations, assumed that the future regime for marine scientific research will be very similar to that outlined in the 1977 Law of the Sea (LOS) document, the Informal Composite Negotiating Text (ICNT).

The U.S. marine science community should not delay developing plans until a final text is adopted because some features of the new text are already being unilaterally implemented by coastal States. Accordingly, the following "Summary Recommendations" and "Recommended Operating Procedures" were developed at the workshop. Subsequent sections of the report elaborate on the specific requirements of the ICNT and comment on aspects of the recommendations and proposed procedures. It should be noted that the workshop and the Ocean Policy Committee did not consider whether the United States should ratify the emerging Law-of-the-Sea treaty and took no position on that issue, but recognized that both points of view are widely held and in either event it is clear that certain operating information requirements and procedures need to be clarified.

SUMMARY RECOMMENDATIONSTo the Operating Institutions:

1. That the institutions follow the recommended operating procedures (pp. 4-5) and furnish the Department of State and UNOLS the information requested therein.

To UNOLS:

2. That UNOLS establish an information service to compile and make available to its members and to other research vessel operators the following information:

- a) Planned and current distant water research programs;
- b) National and international laws and regulations pertaining to the control of marine scientific research; and
- c) Details of experience in obtaining clearance and in operating off foreign coasts, including names and addresses of foreign research contacts.

3. That UNOLS assist operating institutions and the Department of State in monitoring the fulfillment of obligations pertaining to the conduct of distant water research.

4. That UNOLS cooperate with the Federal Research Operators Group (FROG) to ensure that common practices and procedures are followed to the greatest extent practicable by all U.S. research vessels in their conduct of distant water research.

To the National Science Foundation:

5. That the Foundation, in discussions with the Department of State and other appropriate Federal agencies, develop adequate funding to cover the additional costs of distant water research resulting from the changed regime.

To the Department of State:

6. That the Department assist the operating institutions in carrying out communication and negotiation with other coastal States on matters relating to clearance requests, changes in research plans, and the orderly fulfillment of obligations incurred as conditions for access.

7. That the Department continue to serve as the official channel for communication and negotiation with other coastal States on matters relating to clearance requests, changes in research plans, and the orderly fulfillment of obligations incurred as conditions for access.

8. That a record of these communications be maintained and that the essential information be made available to the operating institutions and UNOLS.

9. That the Department obtain copies of all national and international laws and regulations that govern the conduct of marine scientific research in distant waters and routinely provide this information to the operating institutions and UNOLS.

10. That the Department develop and implement procedures to facilitate the research by U.S. scientists in 200 mile zones where jurisdiction is claimed by coastal States.

11. That the Department enter into regional and bilateral negotiations with appropriate organizations and countries in order to facilitate the future conduct of marine scientific research in distant waters.

RECOMMENDED OPERATING PROCEDURES

1. Pre-cruise discussions: In appropriate cases, pre-cruise planning discussions should be held in which the chief scientist and/or other representatives of the operating institution and of the Department of State meet with appropriate scientists and officials of the coastal State. Such discussions are particularly important when previous experience with the coastal State is limited, when difficulties or misunderstandings with the coastal State have occurred in the past, or when the proposed research is complex or of long duration. The purposes of the discussions include ensuring that all concerned fully understand the nature of the research and the conditions under which it is to be conducted, arranging for coastal State participation and arranging for exchange of information and data.
2. Clearance request: Unless informal arrangements are appropriate, the operating institution should submit a clearance request to the Department of State in time for it to be forwarded to the coastal State an agreed time in advance of the proposed operation. The request should be in the standard format developed in consultations between UNOLS and the Department and should contain the information stipulated in the eventual treaty or as agreed with the coastal State concerned.
3. Clearance negotiations: When these negotiations are conducted by the Department of State, a record of them should be maintained and furnished to the operating institution and to UNOLS. All conditions applying to the clearance should be clearly stated, including those relating to the conduct of the research and to port-cruise responsibilities. Academic institutions should provide UNOLS with records of informal negotiations and arrangements.
4. Changes in research plans: All necessary significant changes in research plans should be reported to the Department of State by the operating institutions as soon as possible. During the cruise, the Captain of the research vessel should report such changes both to a designated contact in the coastal State and to the Department of State.
5. Cooperation during cruise: The Captain and the Chief Scientist should comply with the conditions under which access was granted, such as those described in Article 250 of the ICNT, or other agreed conditions stipulated by the coastal State, and at the conclusion of the cruise should report the actions taken to the Department of State and to UNOLS.
6. Post-cruise actions: At the conclusion of the cruise, the operating institution should inform the Department of State and UNOLS about the record of cooperation with the coastal State. Arrangements for providing access to data and samples should also be reported by the operating institution; this information should be transmitted by the Department of State to the coastal State. A schedule should be established for forwarding to the coastal State. Subsequently, periodic reports and relevant publications should be forwarded in the same manner.
7. Compliance with obligations: Fulfillment of obligations should be monitored by the Department of State and UNOLS. At the end of two years, the operating institution should report all actions taken since the end of the cruise. The Department of State should forward this information to the coastal State and indicate whether all obligations have been complied with fully.

SPECIFIC PROCEDURES REQUIRED BY THE ICNT

These paragraphs describe some of the obligations of marine scientific organizations in the development, operation, and completion of marine expeditions as provided in the ICNT (see Appendix B for articles relative to marine science). The list cannot be comprehensive at present because of Article 250, paragraph 2, which concerns application of additional unspecified conditions by the coastal State. It should be emphasized that this section does not concern itself with the basic principles applying to marine scientific research, for example, that marine scientific research activities shall be conducted exclusively for peaceful purposes - Article 241(a), but rather only with the major restrictions and obligations.

Article 151 sets forth the functions of the Deep Seabed Authority. These functions include the conduct of marine scientific research. Paragraph 7, in particular, grants to the Authority the responsibility to "harmonize and coordinate" such research in the Area. The extent to which "coordination" could become "regulation" is a matter of some concern.*

Article 249 lists information to be provided to the coastal State not less than six months in advance of the expected starting date of the research project, if that project is to be conducted within that State's EEZ or on its continental shelf (which, according to the ICNT, extends to the outer edge of the continental margin, even when this lies beyond 200 nautical miles off the coast in question.) The following must be described.

- a) the nature and objectives of the research project;
- b) the method and means to be used, including name, tonnage, type and class of vessels and a description of scientific equipment;
- c) the precise geographical areas in which the activities are to be conducted;
- d) the expected date of the first appearance and final departure of the research vessels, or deployment of the equipment and its removal, as appropriate;
- e) the name of the sponsoring institution, its director, and the person in charge of the research project; and,
- f) the extent to which it is considered that the coastal State should be represented in the research project.

While much of this information has been routinely furnished, certain items might present problems. For example, in part (c), the interpretation of "precise" may differ from country to country. In part (f), it is important that the response be precise and realistic. The term "to participate" is unclear and could presage an involvement lasting for years after the initial funding for the program has expired.

*As a consequence of negotiations at the Spring 1978 session of UNCLOS, it appears that the role of the Authority regarding marine scientific research proposed in the ICNT may be considerably reduced.

Article 250 addresses the duty to comply with certain conditions; it is one of the major articles in the ICNT which concerns obligations for U.S. marine scientists.

Paragraph 1(a) treats the right of a coastal State, if it so desires, to participate or be represented in the research project, especially on board. On occasion, this may lead to requests that research vessels enter foreign ports to pick up and discharge coastal State scientists.

Paragraph 1(b) concerns providing the coastal State, at its request, with preliminary reports as soon as practicable and with final results and conclusions after completion of the research. This requirement had been in effect in some States prior to the ICNT, but has probably not been fulfilled as conscientiously as it could have been. One problem is that the analysis of results from an expedition cannot always be completed within the lifetime of the original research grant. The text contains no procedure for notification that completion or compliance with regulations has been achieved.

Paragraph 1(c) concerns access by the coastal State, at its request, to all data and samples from the research project, which includes providing it with data that can be copied and samples that can be divided without detriment to their scientific value. Meeting this obligation will entail some additional costs, although experience suggests these will be moderate. The National and World Data Centers can play a role in data transfer.

Paragraph 1(d) concerns assistance in assessing the data samples, and the results thereof, is open-ended and might comprehend items unrelated to the major purpose of the expedition (i.e., a physical oceanography cruise might be followed by a request by the coastal State for interpretation of how the information gathered will affect larval distribution of fish or dispersal of pollutants). Likewise, the coastal State could ask for assistance long after the completion of the program or in situations where the principal investigator has become affiliated with another organization.

Paragraph 1(e) concerns making the research results available through appropriate national or international channels. Since scientists believe that free and open publication is an essential element of scientific research, compliance is routine, although lengthy delays in publications often occur. The reference to paragraph 2 of Article 250 implies potential constraints that could prevent such publication.

Paragraph 1(f) relates to notifying coastal States of "major changes" in research programs. This is important since a change in program could be used to stop research activities (see Article 254, 1(a)). It is not clear what constitutes "major" changes or to whom and how the notifications are to be made.

Paragraph 1(g) addresses itself to the removal of scientific installations or equipment upon completion of the research. Presumably it is recognized that the retrieval of that is lost at sea is seldom practicable. A conceivable difficulty arising in connection with this provision concerns free-floating equipment that might enter the 200-mile zone of a coastal State.

Paragraph 2 recognizes that the coastal State may establish laws and regulations as a condition for granting consent. The cross reference in paragraph 1(e) suggests that such regulations may include control over publication, a restriction that will be unacceptable to many scientists.

Article 251 states that communications concerning the research project shall be made through appropriate official channels unless otherwise agreed. The required use of official channels is likely to weaken scientist-to-scientist mechanisms for developing cooperative research efforts. It will be essential for these channels to be identified early in the development of projects.

Article 253 concerns implied consent. A coastal State is permitted to delay approval of a project by requesting additional information provided for in Articles 249 and 250. The State could also delay approval of a project if outstanding obligations exist from a previous research project.

Article 254 gives the coastal State the right to halt research activity in progress if a project is not conducted in accordance with the information initially communicated under Article 249 or if it does not comply with the obligations of Article 250. As noted earlier, these obligations are open-ended, and the work of one institution can be stopped if another has failed to comply.

Paragraph 1(a) operates on the basis of information submitted "initially". This is inconsistent with Article 250(1)(f) which provides for submitting changes in the research plans.

Article 255 addresses the rights of landlocked and geographically disadvantaged States, which are to be notified of research projects and, at their request to be provided additional information and assistance. Although no sanctions are specified, the extent of research institutions' responsibility is unclear.

Article 263 states that installations and equipment shall bear appropriate identification markings and have adequate internationally agreed upon warning signals. This article appears to pertain principally to installations rather than to equipment used from ships.

Article 265 states that coastal state decisions relating to Articles 247 and 254 are not subject to dispute settlement.

GENERAL COMMENTS

The preceding paragraphs have described some of the implications of the ICNT for the marine scientific community. Apart from the obvious restrictions on research activities, serious problems may arise from differing interpretations of the provisions of that text. The workshop participants felt that some of these problems could be mitigated by improved cruise planning and operations. However, before discussing cruise planning and operations, and possible schedule of operations, other general comments should be recorded. Some of these comments have been incorporated into specific recommendations, while others are noted only in the text.

Bilateral and Regional Agreements. Procedures for the conduct of marine scientific research more favorable than those specified in the ICNT, might be negotiated on a bilateral or regional basis. Such procedures could represent simplified and/or expanded arrangements in the mutual interest of both the researching and the coastal States. Agreements thus developed could clarify the items in Articles 249 and 250 of the ICNT or serve as operative mechanisms in the absence of a Law of the Sea (LOS) Convention.

Agreements under such arrangements are independent of LOS but are encouraged in Articles 244 and 248. Bilateral or regional discussions and negotiations between the U.S. Government and other coastal States should be pursued and negotiated agreements should be implemented promptly. The U.S. delegations for these negotiations should include practicing scientists. The arrangements thus derived should be made available to all research vessel operators through UNOLS and the Department of State. (See Recommendation 11)

Appropriate Official Channel. The ICNT requires (Article 251) that communication concerning the research project shall be made through appropriate official channels unless otherwise agreed. In the U.S., several government agencies (i.e., Department of State, National Science Foundation, and National Oceanic and Atmospheric Administration) might appropriately serve in this capacity, and workshop participants explored the relative merits of each for this purpose. In general, however, it was recognized that the Department of State would either serve as the official channel or on occasion might delegate the responsibility to some other agency. (See Recommendation 7)

Scientist-to-scientist contact. It was noted that while scientist-to-scientist contacts would still be important, they would not, in themselves, be sufficient to establish formal arrangements for a program. The U.S. marine scientific community should be aware of this constraint. However, workshop discussions indicated that in the U.S., researching groups, advisory bodies, and individuals should continue to participate in planning discussions to reinforce official channels in developing and planning cooperative research efforts.

International Organizations Facilitating Research. In the ICNT, the possibility is mentioned of international organizations facilitating or obtaining consent for research in various exclusive economic zones (see Article 248). U.S. representatives to meetings of intergovernmental organizations should keep this possibility in mind during discussions of cooperative marine scientific research programs. However, because the full implications of Article 248 are as yet unclear, participation in such international sponsorship should be regarded at this time as only a secondary means for obtaining consent.

National laws and regulations. In order for operating institutions to function effectively under the new regime, they must be fully aware of all pertinent laws and regulations and the obligations and responsibilities contained therein. The Department of State is in the best position to assemble a comprehensive file of these provisions. (See Recommendation 9) The proposed UNOLS Information Service (See Recommendation 2) is intended to facilitate dissemination of such information.

Exclusive Economic Zone Claims. Problems have already arisen where, because coastal State jurisdictional claims are not recognized by the U.S., the Department of State has been unable to process requests for clearance. Without prejudging whether such claims should be recognized, workshop participants proposed that means be developed for handling such requests without undue disruption of research plans. (See Recommendation 10)

Additional cost. The workshop participants felt that many of the obligations and additional activities would involve increased costs (see below for listing of obligations). Probably additional costs may be considered to fall into one of three categories:

1. Costs related to research project - travel, data and sample exchange, routine assessment costs, participation of foreign nationals in the research project, preparation and publication of special reports, removal of equipment.

2. Costs related to ship operation - port calls, additional operational costs for increased ship time and various communications, transportation and subsistence for foreign participants.

3. Costs of cooperating and assistance - discussions between U.S. scientists and the coastal State scientists, training programs, technical assistance, possible additional scientific projects requested by the coastal State, assessments of data after completion of project.

The only existing funding possibility was the Sea Grant International Program (for training programs), participants were unaware of any present mechanism to fund the items in the third category. Nor is it clear that the increased costs listed in the first and second categories have been recognized or that they will be readily accepted by the funding agencies. (See Recommendation 5)

CRUISE PLANNING AND OPERATIONS - A POSSIBLE SCHEDULE OF OPERATIONS

Planning and operations of a research cruise. The following discussion assumes (1) that regulations such as those outlined in the ICNT will eventually be adopted by most or all coastal nations and (2) that marine science research in the Area (that area of the international ocean seabed and subsoil located beyond areas of coastal State jurisdiction) will remain unregulated. Many future research programs may be governed by treaties or by bilateral or regional agreements between the United States and another country or countries. In these cases, regulations and obligations will either be clearly defined or will incorporate articles from a Law of the Sea Convention. Specific obligations can be categorized as follows:

1. Provision of information on and details of expedition
2. Communication through appropriate official channels
3. Provision of information concerning major changes in research plans
4. Participation of foreign nationals in work at sea
5. Access to data and samples
6. Assessment and evaluation of data
7. Provision of results - preliminary and final reports
8. Compliance with regulations and laws of coastal State

Other obligations may include:

- Port calls and visits of officials
- Increased levels of communication and possible enforced changes of cruise programs
- Additional scientific projects requested by coastal State
- Significant coastal State scientist participation in planning the research programs and in working up the results
- Involvement of neighboring landlocked or other geographically disadvantaged States

- Publication in coastal State journals
- Training programs
- Requests for data or other information after end of project
- Evaluation of project in subject areas not relevant to original objectives

Schedule of operations. A set of recommended procedures is described above (see page 4). Comments on some of these procedures follow:

Pre-cruise discussions. Problems in carrying-out distant water research under the new regime are likely to arise because the investigators and the operating institutions on the one hand, and the officials and the scientists of the coastal State on the other, do not have the same understanding of the research plans and of the conditions under which the work is to be done. This understanding can be achieved in many cases by pre-cruise planning meetings between scientists and officials of the U.S. and those of the coastal State. These meetings should discuss and clarify the items in Articles 249 and 250 and where possible negotiate agreement for their implementation. Specific approaches and details of the research project should be discussed. Guidelines for the use of U.S. participants in these discussions may be desirable to ensure that all the appropriate points are raised. In addition, the UNOLS Information Service should provide prospective operators with all available background information regarding specific coastal States and their regulations. The Department of State and UNOLS should be informed about the outcome of these planning meetings; embassy representatives should participate where possible. Funding for such trips should be developed as discussed above.

Consideration should be given to how responsive the research organization should be in complying with the conditions for research clearance. For example, should all data and information be provided automatically or only that which is specifically requested by the coastal State? The former approach carries the risk of greatly expanding the burden on the investigator. The latter approach may seem unduly formalistic to the coastal State and could weaken its opportunity to share fully in the benefits of the research. Whichever is chosen, it is important that each research institution (both those that operate the ship and those that provide the scientific party) ensure that all agreed obligations have been met to avoid creating problems for groups that follow. (See Recommended Operating Procedure 1)

Clearance Request: The operating institution should submit a clearance request to the Department of State with an information copy to UNOLS. If the ICNT provisions apply, the necessary information must be received by the coastal State not less than six months in advance of the expected starting date of the research project. Otherwise, the required lead time should be determined in consultation with the Department of State. The clearance request form has been developed through UNOLS in consultation with ship operators and contains either information required in the ICNT, especially Article 249 (see page 25 of this report) or that specified in bilateral or other arrangements. (See Recommended Operating Procedure 2)

Clearance Negotiations: Until now, informal arrangements for research access have been possible with many coastal States. As the provisions of the ICNT enter into effect or as coastal States incorporate similar provisions in their national regulations, clearance negotiations will increasingly be conducted by the Department of State. It is important that the operating institution be fully informed of the progress of the clearance negotiations. In addition to being reported by phone, the outcome of the research vessel clearance negotiations should also be recorded in some standard way, with all conditions explicitly stated. UNOLS should be kept informed of the developments and outcome.

Changes in Research Plans. Before the cruise begins, the operating institution should inform the Department of State of any major changes from the program originally submitted. The Department should report these changes to the appropriate authorities in the coastal State. Once the operation is underway, other necessary changes may arise, because of difficulties with the ship or with the equipment or because early findings suggest a more fruitful approach. Unless other arrangements have been made, such changes should be reported by radio to the Department of State for formal transmittal to the coastal State and where possible directly to an appropriate contact in that State. (See Recommended Operating Procedure 4)

Cooperation during cruise. During the research cruise, the Captain and Chief should make certain that the conditions under which access was granted, such as those described in Article 250 of the ICNT, or those stipulated by the coastal State and agreed to in the clearance negotiations have been met. All such actions taken should be reported to the Department of State.

During and after the field operations, the operating institution should provide such access to data and samples as has been agreed, reporting these actions to the Department of State and to UNOLS. The Department of State in turn should report this action to appropriate officials of the coastal State. Data and samples should be made available to cooperating scientists from the coastal State, but it is necessary to record this action formally to ensure that fulfillment of the obligation is made known to appropriate officials of the coastal State. (See Recommended Operating Procedure 5)

Post Cruise Action. At the conclusion of the cruise, the operating institution should submit a summary report* on scientific work of the field operation to the Department of State for forwarding to appropriate officials of the coastal State, with an information copy to UNOLS. Although the operating institution or the chief scientists of the field operation may informally provide preliminary reports to coastal State scientists, formal transmission by the Department of State is essential for recording that this obligation has been met. A deadline for this formal transmission of the Summary Report should be established.

*The Summary Research Cruise Report includes the following information: ship name; operating institution; clearance countries; dates; project title(s); port calls; foreign participants; senior scientist; description of scientific program; observations and samples; and, name and address of contact to whom inquiries regarding the cruise should be made.

In addition to this report, both the Department of State and UNOLS should be informed of the general success of cooperation with the coastal State. This information, made available through the UNOLS Information Service, will be of great value to those who plan later work in the same region.

The operating institution should also establish and implement a schedule for providing the coastal State upon request with copies of further reports; copies of the schedule should be provided to the Department of State and UNOLS. As reports, including data reports, become available, copies should be sent to the Department of State for formal transmission, in addition to any copies provided informally to cooperating coastal State scientists. UNOLS should be informed of formal transmissions. Such a schedule is required so that the extent to which the obligation is being met in a timely fashion can be evaluated. Because of inevitable delays in final publication, operating institutions should furnish the coastal State with periodic summary reports. The final publication should be transmitted by the Department of State.

The operating institution could continue to transmit any formal publications that result from the program to the appropriate channels in the foreign countries. A copy of the covering letter with a list of articles should be sent to UNOLS. (See Recommended Operating Procedure 6)

Compliance with obligations. The ICNT makes no provision for acknowledgement by the coastal State that obligations relating to a specific cruise have been satisfactorily met. To meet this problem, two actions are proposed. First, UNOLS should assist the Department of State in monitoring the fulfillment of obligations and in reminding operating institutions when the necessary action is unduly delayed. Second, after some reasonable period (two years is proposed), the U.S. should formally indicate to the coastal State its opinion that in view of the actions taken, the task has been completed. (See Recommended Operating Procedure 7)

Schedule of implementation. Until the time when international agreement has been reached on the conditions for the conduct of marine scientific research in distant waters, such conditions are likely to differ from country-to-country. During this intervening period, some of the Recommended Operating Procedures may need to be fully implemented. Since the actual procedures to be followed must be decided on a case-by-case basis, full cooperation among the operating institutions, the Department of State and UNOLS is essential. UNOLS should have an important role in facilitating this cooperation.

APPENDIX A

PROCEEDINGS OF A WORKSHOP ON PROCEDURES FOR MARINE
SCIENTIFIC ACTIVITIES IN A CHANGING ENVIRONMENT

January 9-11, 1978

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APPENDIX B
COMMENTS ON
PART XIII
INFORMAL COMPOSITE NEGOTIATING TEXT
ARTICLES ON MARINE SCIENTIFIC RESEARCH

by Mary Hope Katsouros

This paper outlines the Articles in Part XIII, "Marine Scientific Research," of the Informal Composite Negotiating Text (ICNT). That Part is appended. The purpose is to indicate the likely nature of the regime for marine scientific research under a comprehensive treaty that follows the ICNT.

The ICNT contains 27 articles on marine scientific research; these 27 articles comprise six sections which begin on page 128 of the text.

Section 1 of this part formulates the general principles for all marine scientific research (Articles 239-242) which can be summarized as follows:

- general statement of the right of all states to conduct scientific research (Article 239);
- general obligation on all states to promote and facilitate research (Article 240);
- general principles of peaceful purposes, use of scientific methods, noninterference with other uses of the sea, protection of the marine environment (Article 241); and
- research not to form the basis for any jurisdiction claim (Article 242).

Section 2 (Articles 243-245), contains general obligations to: promote international cooperation; conclude bilateral, regional, and multi-lateral agreements; promote the flow of scientific data, publish results, and provide adequate technical assistance.

Section 3 deals with the conduct and promotion of marine scientific research (Articles 246-258).

Article 246 provides for coastal state exclusive right to regulate and control all marine scientific research in the territorial sea. Existing international law recognizes that the coastal state has the right to regulate and control research activities in this area; at the Third U.N. Law of the Sea Conference, the width of the territorial sea was increased from three to 12 miles. Thus, although this article restates present law, the area that is now regulated is 12 miles.

Article 247 is the basic regime article for marine scientific research in the economic zone and on the continental shelf and is composed of five paragraphs. (The economic zone is defined as that area that "shall not extend beyond 200 nautical miles from the baseline from which the breadth of the territorial sea is measured." The continental shelf of a coastal state is defined as that area comprising "the seabed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of

its land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the continental margin does not extend up to that distance." This definition provides for the few areas of the world where the continental shelf extends seaward more than 200 miles.)

Paragraph 1 makes explicit the right of the coastal state to regulate, authorize, and/or conduct marine scientific research in its exclusive economic zone and on the continental shelf.

Paragraph 2 sets out a consent regime that requires explicit consent of the coastal state before any marine scientific research can be conducted in the zone or on the shelf. The requirement of consent does not say when a state is to grant, and when it is to withhold, consent.

Paragraph 3 requires coastal states "in normal circumstances" to grant consent for research projects, "exclusively for peaceful purposes and in order to increase scientific knowledge of the marine environment for the benefit of all mankind." The paragraph does not define the range of events to be considered "normal"; thus, a coastal state appears to be unrestricted in its decision to grant or withhold consent. It is also free to define "peaceful purposes" and "the benefit of all mankind." The phrase "in normal circumstances" is similar to language contained in Article 5(8) of the 1958 Continental Shelf Convention, which language has been used to increase coastal state control over oceanographic research since 1964 to the point where many research activities have been adversely affected. It has been stated that "in normal circumstances" means in normal diplomatic circumstances; however, since the negotiations were held in closed sessions, there is no legislative history to support this interpretation.

The degree of coastal State discretion provided by this Article is emphasized by Article 265 which expressly states that the coastal state need not submit for dispute settlement any controversy arising out of its right to authorize scientific research as provided by Article 247. In short, the state's determination that "circumstances" are not "normal" is not contestable, whether the alleged circumstances are political, diplomatic, economic, military, scientific or natural.

Finally, while this paragraph adds a requirement that "coastal States establish rules and procedures ensuring that such consent will not be delayed or denied unreasonably," it again should be noted that determination of whether delays or denials are "unreasonable" is left to the states.

Paragraph 4 spells out several conditions under which coastal states may withhold consent, the most important being research which "is of direct significance for the exploration and exploitation of natural resources." The state has complete discretion to determine what research has "direct significance" since the ICNT contains no guidelines or criteria to lend objectivity to this decision. Inasmuch as the state's decision is beyond appeal, there is no opportunity to build up a body of standards, principles or criteria which would help to reduce future uncertainty. Other conditions for withholding consent include: projects for which information sent to the coastal states regarding the nature and objectives of the project is inaccurate; the use of explosives in, or the introduction of harmful substances to, the marine environment; and where the researching state has outstanding obligations from

a prior research project. This combination of occasions for denial makes it possible for the state arbitrarily to withhold consent in practically all cases.

Paragraph 5 forbids unjustifiable interference (as defined by the coastal state) with any or all activities undertaken by the state in accordance with its sovereign rights and jurisdiction.

Article 248 provides for automatic authorization of projects undertaken by an international organization if the state is a member, has a bilateral agreement with, or is willing to participate in the project. In cases such as the International Council for the Exploration of the Sea in the North Sea, this could be a means of facilitating science; the more general consequences could be that international organizations will cease to develop cooperative investigations that would fall under this Article.

Article 249 requires that the researching state or competent international organization planning to do research within the economic zone or continental shelf of the coastal state, provide the coastal state a full description of the project six months in advance. This extends the period of advance notification from not less than four months to not less than six months in advance of the expected starting date of the research project. The notification must include information on the nature and objectives of the project, method and means of operation, exact area, name of sponsoring institution director and researcher, and a recommendation on coastal state participation.

Article 250 is comprised of two paragraphs enumerating conditions with which the researching state must comply.

Paragraph 1 lists the researching state's (or competent international organization's) obligations, including coastal state participation, providing reports and results, access to data and samples, helping the state to assess results, making these results generally available (subject to paragraph 2), informing coastal states of changes in the project, and removing any installations or equipment used.

Paragraph 2 can be interpreted as providing the state with authority to establish additional obligations besides those listed in paragraph 1. It also permits the state to control publication of results of any kind of research over any period of time. It also may be noted that the new provision would permit such restriction on all research and is therefore even more restrictive than the previous text which referred only to a certain category of results. It is also not apparent that the coastal state is limited to prior restraints on publication, only that it may impose prior restraints.

Articles 249 and 250 outline a series of basic obligations that the researching state must fulfill in order to conduct marine scientific research within the economic zone and continental shelf of the coastal state. These articles are still ambiguous and require significant clarification to minimize misunderstanding about their fulfillment (see also Article 254). There is no mechanism to inform the researching state whether it has outstanding obligations in the view of the coastal state. The most difficult obligation to interpret is the open-ended provision that the researching state must provide assistance to coastal states in assessing data and samples and the results.

Article 251 provides an obligation to communicate through official channels.

Article 252 says that "States shall seek to promote through competent international organizations the establishment of general criteria and guidelines to assist the states in ascertaining the nature and implications of marine scientific research." This Article, however, does not require states to proceed with the task of defining the terms involved; the phrase "States shall seek to promote" does not bind the parties to any timetable or procedures to discharge the task indicated and even if "competent international organizations" should establish criteria and guidelines that are agreed to by most states, there is no requirement that states accept the criteria and guidelines.

Article 253 extends from four to six months the period before implied consent becomes effective, and from two to four months the period before the coastal state should respond to the communication of information concerning proposed research. The concept of implied consent is intended to counterbalance the right of a coastal state to regulate, deny, or authorize the conduct of a marine scientific research project in its economic zone or on its continental shelf. Although the concept is useful, the qualifications placed on this Article can render it virtually meaningless because a coastal state may continuously request supplementary information.

Article 254 provides the coastal state the right to stop an ongoing research project if it is not being conducted in accordance with the information initially communicated to the state as provided under Article 249 regarding the nature, objectives, method, means or geographical areas of the project, or if there is a failure to comply with provisions of Article 250 concerning the rights of a coastal state to participate in or be represented in the research project without cost to the state within a reasonable period of time. (The Article allows the state to require cessation of research activities if the project is not being conducted in accordance with information initially communicated under Article 249, even though Article 250 specifically provides for updating that information.)

Article 255 requires that the researching state take into account the interests and rights of neighboring landlocked and geographically disadvantaged states, and that these states should be given the opportunity to participate in the research project "whenever feasible." The problem created here is that in some instances it will not be obvious which landlocked or geographically disadvantaged states are to be considered neighboring.

Article 256 states that coastal states, on the basis of bilateral, regional, and multilateral agreements, shall adopt measures in the spirit of international cooperation to promote and facilitate marine scientific research such as adopting reasonable and uniformly applied rules, regulations and administrative procedures, facilitating access to their harbors, and providing assistance to marine scientific research vessels. The obligation is a new requirement placed on coastal states and could improve conditions for scientific research.

Article 257, the Article for the deep seabed, provides that all states and competent international organizations have the right to conduct marine scientific research in the international seabed area in conformity with the provisions of Part XI of the present convention.

Comment: Although this paper is concerned with articles in Part XIII, two provisions of Part XI, the Area, must be discussed. Article 143 of Part XI is a general statement on scientific research. It is the only article in Part XI that deals solely with scientific research. The text of this article is as follows:

Marine Scientific Research

1. Marine scientific research in the Area shall be carried out exclusively for peaceful purposes and for the benefit of mankind as a whole in accordance with Part XIII of the present Convention.

2. States Parties shall promote international cooperation in marine scientific research in the Area exclusively for peaceful purposes by:

(a) participation in international programmes and encouraging cooperation in marine scientific research by personnel of different countries and of the Authority;

(b) ensuring that programmes are developed through the Authority or other technologically less developed countries with a view to:

(i) strengthening their research capabilities;

(ii) training their personnel and the personnel of the Authority in techniques and applications of research;

(iii) fostering the employment of their qualified personnel in activities of research in the Area:

(c) effective dissemination of the results of research and analysis when available, through the Authority or other international channels when appropriate.

It should also be noted that this article appears in Section 3 of Part XI entitled, 'Conduct of Activities in the Area.' It could be interpreted that marine scientific research is an activity and therefore must comply with the Convention and regulations prescribed by it.

Article 151 deals with the functions of the Authority and paragraph 7 of this article could be interpreted as confirming the scope of the Authority's jurisdiction over marine scientific research. Paragraph 7 states:

"The Authority shall carry out marine scientific research concerning the Area and its resources, and may enter into contracts for that purpose. The Authority shall promote and encourage the conduct of marine scientific research in the Area, harmonize and coordinate such research, and arrange for the effective dissemination of the results thereof."

This paragraph could be interpreted, therefore, to authorize the Authority to conduct scientific research in the area as well as enter into contract for that purpose, assuring direct and effective control at all times over such activities. It is also worth noting a statement of President Amerasinghe's which indicates the Authority's role regarding research. "The question whether the new provision on scientific research in Article 151 is sufficient to indicate the role that the Authority may be expected to play in this activity, which is very important to the international community, may require further discussion."

Article 258 provides that all states and competent international organizations have the right to conduct marine scientific research in the water column beyond the limits of the economic zone.

Section 4 discusses the legal status of scientific installations and equipment (Articles 259-263) which can be summarized as follows:

- statement that the use of installations and equipment for research is subject to the same conditions as other research (Article 259);
- statement that installations shall not affect delimitation nor the territorial sea (Article 260);
- rights to establish 500-meter safety zones around scientific installations (Article 261);
- requirement that installations must not interfere with established shipping routes (Article 262); and
- requirement to mark and identify installations (Article 263).

Section 5, containing Article 264, discusses state responsibility and liability for damage caused by scientific research. In essence, the Article states that States are responsible for ensuring compliance with the convention for research undertaken by them or on their behalf. It also provides for researching state liability and compensation for damage resulting from research in accordance with international law.

Section 6 (Articles 265 and 266) discusses settlement of disputes.

Article 265 removes marine scientific research from dispute settlement with regard to (1) exercise of coastal state rights or discretions under Article 247, and (2) the decision by the state to terminate a research project under Article 254. These are the principal questions which might require dispute settlement. The Article is silent on the rights in the matter for the researching state or organization.

Section 266 provides that, pending the settlement of a disput, the research activity cannot be started or permitted to continue.

PART XIII

MARINE SCIENTIFIC RESEARCH

SECTION 1. GENERAL PROVISIONS

Article 239

Right to conduct marine scientific research

States, irrespective of their geographical location, and competent international organizations have the right to conduct marine scientific research subject to the rights and duties of other States as provided for in the present Convention.

Article 240

Promotion of marine scientific research

States and competent international organizations shall promote and facilitate the development and conduct of marine scientific research in accordance with the present Convention.

Article 241

General principles for the conduct of marine scientific research

In the conduct of marine scientific research the following principles shall apply:

(a) Marine scientific research activities shall be conducted exclusively for peaceful purposes;

(b) Such activities shall be conducted with appropriate scientific methods and means compatible with the present Convention;

(c) Such activities shall not unjustifiably interfere with other legitimate uses of the sea compatible with the present Convention and shall be duly respected in the course of such uses;

(d) Such activities shall comply with all relevant regulations established in conformity with the present Convention including those for the protection and preservation of the marine environment.

Article 242

Marine scientific research activities not constituting
the legal basis for any claim

Marine scientific research activities shall not form the legal basis for any claim to any part of the marine environment or its resources.

SECTION 2. GLOBAL AND REGIONAL CO-OPERATION

Article 243

Promotion of international co-operation

States and competent international organizations shall, in accordance with the principle of respect for sovereignty and on the basis of mutual benefit, promote international co-operation in marine scientific research for peaceful purposes.

Article 244

Creation of favourable conditions

States and competent international organizations shall co-operate with one another, through the conclusion of bilateral, regional and multilateral agreements, to create favourable conditions for the conduct of marine scientific research in the marine environment and to integrate the efforts of scientists in studying the essence of and the interrelations between phenomena and processes occurring in the marine environment.

Article 245

Publication and dissemination of information and knowledge

1. States and competent international organizations shall, in accordance with the present Convention, make available information on proposed major programmes and their objectives as well as knowledge resulting from marine scientific research by publication and dissemination through appropriate channels.
2. For this purpose, States shall, both individually and in co-operation with other States and with competent international organizations, actively promote the flow of scientific data and information and the transfer of knowledge resulting from marine scientific research in particular to developing states, as well as the strengthening of the autonomous marine research capabilities of developing states through, inter alia, programmes to provide adequate education and training of their technical and scientific personnel.

**SECTION 3. CONDUCT AND PROMOTION OF MARINE
SCIENTIFIC RESEARCH**

Article 246

Marine scientific research in the territorial sea

Coastal States, in the exercise of their sovereignty, have the exclusive right to regulate, authorize and conduct marine scientific research in their territorial sea. Marine scientific research activities therein shall be conducted only with the express consent of and under the conditions set forth by the coastal State.

Article 247

Marine scientific research in the exclusive economic zone and on the
continental shelf

1. Coastal States, in the exercise of their jurisdiction, have the right to regulate, authorize and conduct marine scientific research in their exclusive economic zone and on their continental shelf in accordance with the relevant provisions of the present Convention.
2. Marine scientific research activities in the exclusive economic zone and on the continental shelf shall be conducted with the consent of the coastal State.
3. Coastal States shall, in normal circumstances grant their consent for marine scientific research projects by other states or competent international organizations in their exclusive economic zone or on their continental shelf to be carried out in accordance with the present Convention exclusively for peaceful purposes and in order to increase scientific knowledge of the marine environment for the benefit of all mankind. To this end, coastal States shall establish rules and procedures ensuring that such consent will not be delayed or denied unreasonably.
4. Coastal States may however in their discretion withhold their consent to the conduct of a marine scientific research project of another State or competent international organization in the exclusive economic zone or on the continental shelf of the coastal State if that project:
 - (a) is of direct significance for the exploration and exploitation of natural resources, whether living or non-living;
 - (b) involves drilling into the continental shelf, the use of explosives or the introduction of harmful substances into the marine environment;
 - (c) involves the construction, operation or use of artificial islands, installations and structures as referred to in articles 60 and 80;

(d) contains information communicated pursuant to article 254 regarding the nature and objectives of the project which is inaccurate or if the researching state or competent international organization has outstanding obligations to the coastal State from a prior research project.

5. Marine scientific research activities referred to in this article shall not unjustifiably interfere with activities undertaken by coastal States accordance with their sovereign rights and jurisdiction as provided for in the present Convention.

Article 248

Research project under the auspices of, or undertaken by international organizations

A coastal State which is a member of a regional or global organization or has a bilateral agreement with such an organization, and in whose exclusive economic zone or on whose continental shelf the organization wants to carry out a marine scientific research project, shall be deemed to have authorized the project to be carried out, upon notification to the duly authorized officials of the coastal State by the organization, if that State approved the project when the decision was made by the organization for the undertaking of the project or is willing to participate in it.

Article 249

Duty to provide information to the coastal State

States and competent international organizations which intend to undertake marine scientific research in the exclusive economic zone or on the continental shelf of a coastal State shall, not less than six months in advance of the expected starting date of the research project, provide that State with a full description of:

- (a) the nature and objectives of the research project;
- (b) the method and means to be used, including name, tonnage, type and class of vessels and a description of scientific equipment;
- (c) the precise geographical areas in which the activities are to be conducted;
- (d) the expected date of first appearance and final departure of the research vessels, or deployment of the equipment and its removal, as appropriate;
- (e) the name of the sponsoring institution, its director, and the person in charge of the research project; and
- (f) the extent to which it is considered that the coastal State should be able to participate or to be represented in the research project.

Article 250

Duty to comply with certain conditions

1. States and competent international organizations when undertaking marine scientific research in the exclusive economic zone or on the continental shelf of a coastal State shall comply with the following conditions:

(a) Ensure the rights of the coastal State, if it so desires, to participate or be represented in the research project, especially on board research vessels and other craft or installations, when practicable, without payment of any remuneration to the scientists of the coastal State and without obligation to contribute towards the costs of the research project;

(b) Provide the coastal State, at its request, with preliminary reports, as soon as practicable, and with the final results and conclusions after the completion of the research;

(c) Undertake to provide access for the coastal State, at its request, to all data and samples derived from the research project and likewise to furnish it with data which may be copied and samples which may be divided without detriment to their scientific value;

(d) If requested, assist the coastal State in assessing such data and samples and the results thereof;

(e) Ensure, subject to paragraph 2 of this article, that the research results are made internationally available through appropriate national or international channels, as soon as feasible;

(f) Inform the coastal State immediately of any major change in the research programme;

(g) Unless otherwise agreed remove the scientific installations or equipment once the research is completed.

2. This article is without prejudice to the conditions established by the laws and regulations of the coastal State for the granting of consent where the coastal State, notwithstanding the provisions of article nevertheless, grants its consent to the project in question.

Article 251

Communications concerning research project

Communications concerning the research project shall be made through appropriate official channels unless otherwise agreed.

Article 252

General criteria and guidelines

States shall seek to promote through competent international organizations the establishment of general criteria and guidelines to assist States in ascertaining the nature and implications of marine scientific research.

Article 253

Implied consent

States or competent international organizations may proceed with a research project upon the expiry of six months from the date upon which the information required pursuant to article 252 was provided to the coastal State unless within four months of the receipt of the communication containing such information the coastal State has informed the State or organization conducting the research that:

- (a) it has withheld its consent under the provisions of article 252 ; or
- (b) the information given by the State or competent international organization in question regarding the nature or objectives of the research project does not conform to the manifestly evident facts; or
- (c) it requires supplementary information relevant to the conditions and the information provided for under article 252 and ; or
- (d) outstanding obligations exist with respect to a previous research project carried out by that State or organization, with regard to conditions established in article 252

Article 254

Cessation of research activities

1. The coastal State shall have the right to require the cessation of any research activities in progress within its exclusive economic zone or on its continental shelf if:

- (a) the research project is not being conducted in accordance with the information initially communicated to the coastal State as provided under article 252 regarding the nature, objectives, method, means or geographical areas of the project; or
- (b) the State or competent international organization conducting the research project fails to comply with the provisions of article 252 concerning the rights of the coastal State with respect to the project and compliance is not secured within a reasonable period of time.

Article 255

Rights of neighbouring land-locked and geographically disadvantaged States

1. States and competent international organizations conducting marine scientific research in the exclusive economic zone or on the continental shelf of a coastal State shall take into account the interests and rights of neighbouring land-locked and other geographically disadvantaged States, as provided for in the present Convention and shall notify these States of the proposed research project as well as provide, at their request, relevant information and assistance as specified in article 249 and subparagraph (d) and (f) of article 250.

2. Such neighbouring land-locked and other geographically disadvantaged States shall, at their request, be given the opportunity to participate, whenever feasible, in the proposed research project through qualified experts appointed by them.

Article 256

Measures to facilitate marine scientific research and assist research vessels

For the purpose of giving effect to bilateral or regional and other multilateral agreements and in a spirit of international co-operation to promote and facilitate marine scientific research activities conducted in accordance with the present Convention, coastal States shall adopt reasonable and uniformly applied rules, regulations and administrative procedures applicable to States and competent international organizations desiring to carry out research activities in the exclusive economic zone or on the continental shelf and shall, for the same purpose, adopt measures to facilitate access to their harbours and to promote assistance for marine scientific research vessels carrying out such activities, in accordance with the present Convention.

Article 257

Marine scientific research in the Area

States, irrespective of their geographical location, as well as competent international organizations, shall have the right, in conformity with the provisions of Part XI of the present Convention, to conduct marine scientific research in the Area.

Article 258

Marine scientific research in the water column beyond the exclusive economic zone

States, irrespective of their geographical location, as well as competent international organizations, shall have the right, in conformity with the present Convention, to conduct marine scientific research in the water column beyond the limits of the exclusive economic zone.

**SECTION 4. LEGAL STATUS OF SCIENTIFIC RESEARCH INSTALLATIONS
AND EQUIPMENT IN THE MARINE ENVIRONMENT**

Article 259

Deployment and use

The deployment and use of any type of scientific research installations or equipment in any area of the marine environment shall be subject to the same conditions as those for the conduct of marine scientific research in such area, as provided for in the present Convention.

Article 260

Legal status

The installations or equipment referred to in this section shall not have the status of islands or possess their own territorial sea, and their presence shall not affect the delimitation of the territorial sea, exclusive economic zone and continental shelf of the coastal State.

Article 261

Safety zones

Safety zones of a reasonable width not exceeding a distance of 500 metres may be created around scientific research installations in accordance with the relevant provisions of the present Convention. All States shall ensure that such safety zones are respected by their vessels.

Article 262

Non-interference with shipping routes

The deployment and use of any type of scientific research installations or equipment shall not constitute an obstacle to established international shipping routes .

Article 263

Identification markings and warning signals

Installations or equipment referred to in this section shall bear identification markings indicating the State of registry or the international organization to which they belong and shall have adequate internationally agreed warning signals to ensure safety at sea and the safety of air navigation, taking into account the principles established by competent international organizations.

SECTION 5. RESPONSIBILITY AND LIABILITY

Article 264

Responsibility and liability

1. States and competent international organizations shall be responsible for ensuring that marine scientific research, whether undertaken by them or on their behalf, is conducted in accordance with the present Convention.
2. States and competent international organizations shall be responsible and liable for the measures they undertake in contravention of the present Convention in respect of marine scientific research activities conducted by other States, their natural or juridical persons or by competent international organizations, and shall provide compensation for damage resulting from such measures.
3. States and competent international organizations shall be responsible and liable pursuant to the principles set forth in article 236 for damage arising out of marine scientific research undertaken by them or on their behalf.

SECTION 6. SETTLEMENT OF DISPUTE

Article 265

Settlement of disputes

Unless otherwise agreed or settled by the parties concerned, disputes relating to the interpretation or application of the provisions of the present Convention with regard to marine scientific research shall be settled in accordance with section II of Part XIV of the present Convention, except that the coastal State shall not be obliged to submit to such settlement any dispute arising out of:

- (a) the exercise by the coastal State of a right or discretion in accordance with article 247; or
- (b) the decision by the coastal State to terminate a research project in accordance with article 254.

Article 266

Interim measures

Pending settlement of a dispute in accordance with article 265, the State or competent international organization authorized to conduct a research project shall not allow research activities to commence or continue without the express approval of the coastal State concerned.

APPENDIX C

TWO HUNDRED NAUTICAL MILES NATIONAL MARITIME CLAIMS

by Mary Hope Katsouros

In order to consider whether a law of the sea treaty might be worse for science than no treaty or whether a treaty with negotiated arrangements would be preferable, it is necessary to examine recent practices of coastal nations as reflected in their national legislation. At this time, there are 130 independent coastal states. As of June 1978*, 66** of these coastal nations claim jurisdiction over a 200 nautical mile maritime zone. I estimated that out of these coastal states, at least 41 claim direct or indirect jurisdiction over marine scientific research within their 200 mile zone. The breakdown is as follows: Twenty-seven states clearly claim jurisdiction over marine scientific research as stated in their actual law or decree. These states are Argentina, The Bahamas, Barbados, Brazil, Burma, Cape Verde, Cuba, Dominican Republic, Ecuador, Guatemala, Guyana, India, Ivory Coast, Japan, Maldives, Mauritius, Mexico, New Zealand, Norway, Pakistan, Peru, Portugal, Seychelles, Sri Lanka, Uruguay, Vietnam, and Yemen, Aden. Although not specifically stated in the legislation or other sources of documentation, nine states claim a territorial sea and assuming the conventional rights of exclusive jurisdiction within the territorial sea, it can be implied that these nations would exercise some jurisdiction over scientific research. These nations include Benin, Congo, El Salvador, Ghana, Guinea, Liberia, Panama, Sierra Leone and Somalia. Fifteen states claim jurisdiction over activities related to fisheries or living and non-living natural resources within their maritime zone. It can be assumed that the jurisdiction covers marine scientific research where it impacts upon the fisheries or natural resources. These nations include Angola, Bangladesh, Canada, Chile, Comoros, France, German Democratic Republic, Haiti, Iceland, North Korea, Mozambique, Nicaragua, Poland, Senegal, and Togo. Therefore, only 15 nations which have made 200 mile claims do not claim jurisdiction over scientific research and only one explicitly excludes science, i.e., the United States.

It is also of interest to note that some nations use similar language to that of Article 246, stating that they have the right to regulate, authorize, and control marine scientific research in their 200 mile zone.

Although most of these nations have not as yet promulgated requirements for foreign institutions and scientists to obtain clearances for the research they intend to conduct in water claimed, I would like to give these examples of coastal States increasing obligations or conditions. The first is India. The Government of India in a letter to Dr. Manik Talwani dated July 18, 1977

stated that a formal request had to be sent through an official channel to the Government of India for permission. Besides a full description of the project, the requirement states that: "The Government of India will not permit the following:

- (i) physical oceanographic observations of a grid closer than 30 miles interval;
- (ii) stationary time series observations for all physical oceanographic parameters except currents;
- (iii) observations in ambient and ship generated noise level;
- (iv) reverberations of observations particularly in shallow waters;
- (v) use of sub-mercibles; and
- (vi) observations on acoustic signal range limitations.

It may also be kindly confirmed that:

- (i) The Government of India will have access to all the original raw and processed data, samples, interpretations, and final results related to seabed and sub-soil of Exclusive Economic Zone and Continental Shelf of India;
- (ii) The results of research and conclusions related to the area of Exclusive Economic Zone and Continental Shelf of India shall not be published or divulged to any third party without the prior consent of the Government of India.
- (iii) The survey over the exclusive Economic Zone and Continental Shelf will not allow participation of any third party without the prior consent of the Government of India.

The second one is Trinidad and Tobago where they approved research, but insisted on two new requirements. The first was that data results could only be published with the Government's consent and that all data and specimens would be property of Trinidad and Tobago.

The last one is Argentina. Argentina in its Law No. 20.489 states and (these are only excerpts), i.e., binder (b) "In some cases the Government may rule that an Argentinan expert be given authority to oversee and/or participate in the research." One is not certain what the word "oversee" means.

One could continue, it is obvious that more and more states are claiming jurisdiction over science and incorporating as minimum requirements the obligations as now stated in the ICNT.

*This paper has been updated since the workshop in January 1978 at which time 56 coastal nations claimed a 200 mile zone.

**The 66 states, in alphabetical order, are: Angola, Argentina, The Bahamas, Bangladesh, Barbados, Benin, Brazil, Burma, Cambodia, Canada, Cape Verde, Chile, Comoros, Congo, Costa Rica, Cuba, Denmark, Dominican Republic, Ecuador, El Salvador, Federal Republic of Germany, France, German Democratic Republic, Ghana, Guatemala, Guinea, Guyana, Haiti, Iceland, India, Ireland, Ivory Coast, Japan, North Korea, South Korea, Liberia, Maldives, Mauritius, Mexico, Mozambique, Netherlands, New Zealand, Nicaragua, Norway, Oman, Pakistan, Panama, Papua New Guinea, Peru, Poland, Portugal, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Soviet Union, Sri Lanka, Sweden, Togo, Ukrainian SSR, United Kingdom, United States, Uruguay, Vietnam, Yemen, Aden. A country-by-country summary is available from the Ocean Policy Committee.