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# Introduction

It is evident that the Law of the Sea Treaty, and the extended jurisdictional claims already made by many coastal countries, have led to various problems for U.S. marine scientists who wish to work in foreign waters<sup>1</sup>,<sup>2</sup>. Likewise there is a potential for problems in the future, regardless of the eventual U.S. position on the treaty. The basic premise of my paper is that in spite of these problems there will also be many valuable opportunities for marine science and marine scientists, but to realize these will require new approaches and skills. First, something about the problems.

### The Problems

The rules and conditions in the Law of the Sea Treaty (treaty) presently can directly affect marine research in about 42 percent of the ocean - including all coastal zones and many other scientifically interesting areas. From a marine science perspective the ocean can be divided into seven regions: internal waters, 12 mile wide territorial seas, straits used for international navigation, archipelagic waters, 200 nautical mile exclusive economic zones (EEZ), shelf beyond 200 nautical miles, and the "Area". Specific marine science conditions apply to all regions except the "Area" (for more specifics the treaty should be consulted).

The treaty also has conditions for marine scientific research that are essentially independent of jurisdictional regions. Among these are:

- Adjacent coastal state consent is required for research in all parts of the ocean, except the "Area."
- Consent (in the EEZ and shelf beyond 200 nautical miles) shall "in normal circumstances" be granted, but it can be denied if the research "is of direct economic significance for the exploration and exploitation of natural resources, whether living or non-living."
- Permission mechanisms for research in internal waters, territorial seas, international straits and archipelagic waters are not well defined and permission will probably be harder to obtain than in the EEZ.
- The coastal state can, if it desires, participate in the research endeavors including access to all data and samples (that can be divided without detriment to their scientific value).
- If requested, the researching group shall provide an assessment of data, samples and research results or provide assistance in their assessment or interpretation.

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# stopped if such activities do not follow original plans or if some of the above are not being met. Actual implementation of the above conditions and others will be at the discretion of individual countries. These conditions, unfortunately, may be invoked differently in response to each new request for permission to conduct research. If it so desires, a country has many opportunities to frussuperficially innocent but frustratingly effective

- Research activities can be suspended or

trate marine scientific research in their waters. A procedure would be for a foreign country continuously to request more information about the research, and in this manner delay their final decision to the point of preventing the research without ever actually denying permission. Perhaps more important than any roadblocks unsympathetic coastal states might erect, is that the perceived difficulties could effectively discourage U.S. scientists from seeking permission to work in foreign waters. One Problem Solved

An immediate problem for U.S. marine scientists was caused by the recent U.S. decision to remain outside of the Treaty. This led to a situation where most of the world was, or soon would be, recognizing the treaty controls over marine scientific research while the U.S. only recognized foreign control over marine research within a three-mile wide territorial sea and for certain types of continental shelf research. For the U.S. to honor the coastal states' wider claims of jurisdiction would have amounted to a tacit acceptance of part of the treaty. U.S. scientists were impaled on the horns of this dilemma since they were without an official mechanism to request per- mission to work in foreign EEZ's.

Progress towards a solution came in the form of a 1983 House Bill (H.R. 703 or the International Marine Scientific Research Act) proposed by Congressmen Studds and Pritchard. This bill called attention to the problem and stated that the "Secretary of State shall transmit promptly to the appropriate officials of a foreign country requests by U.S. scientists for permission to conduct marine scientific research in" foreign EEZ's. A subsequent action, which effectively resolved the problem was the Presidential Proclamation of 10 March, 1983. An accompanying United States Ocean Policy Statement stated that "The Department of State will take steps to facilitate access by U.S. scientists to foreign EEZ's under reasonable conditions." It is not clear what "reasonable conditions" actually implies but one assumes this means the conditions in the treaty. The State Department, because of the President's statement, now is able to negotiate permissions for scientific research in foreign EEZ's by U.S. scientists<sup>3</sup>. The Studds-Pritchard Bill and a later EEZ implementation bill by Congressman Breaux and Senator Stevens also encourage the development of

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bilateral scientific arrangements with countries in whose waters much U.S. research activity occurs (i.e., Canada and Mexico). Bilaterals, if negotiated carefully, could simplify or even expedite research requests and approval.

## The Opportunity

Even with this recent spurt of legislative activity, the point should not be lost that U.S. marine scientists are still left with the treaty conditions and all their uncertainities. The challenge is how to overcome or even capitalize on this situation. I believe that there are reasons to be optimistic about the future of U.S. marine science. Many developing coastal countries<sup>4</sup> with their newly acquired marine real estate are anxious to explore and exploit their marine potential and many will turn to developed maritime nations such as the U.S. for help. Initially these countries may focus on resource development, and, in this context, they will need assistance with marine management and policy questions<sup>5</sup>, but these endeavors will also require sound scientific data. If my optimism is correct, developing coastal countries will (several already have) be looking for help in institution development, ships and equipment, specific technical training, graduate education, cooperative scientific arrangements and joint research. The question is, are there adequate mechanisms to satisfy the interests of developing countries as well as those of U.S. scientists and institutions? One could say yes since there are some good (though generally small) programs such as: URI with Malaysia; Miami with Colombia: Delaware with Costa Rica; Scripps with Mexico; Oregon State University with Chile; and others. At Woods Hole we have developed a cooperative international marine assistance program with selected countries to aid in development of their marine resource management plans; specific projects are underway with Colombia and Ecuador. Although these efforts are valuable<sup>6</sup> and should continue, I feel that more can and should be done, especially if we want to take full advantage of the world-wide interest in marine resource development.

# A Recommendation

In spite of the important need for cooperative marine science programs there is no coherent, focused U.S. effort to encourage work with individual foreign countries. Although U.S. projects (such as those mentioned in the previous paragraph) and contacts with individual foreign countries are common, they are spread among many federal and private organizations who are often unaware of what others are doing. As confusing as this is for U.S. scientists or organizations it is even worse for foreign scientists or countries. This problem was addressed by the Marine Technical Assistance Group of the Ocean Policy Committee (U.S. National Research Council). A specific recommendation was for a central clearing group in the United States capable of providing information to developing countries on technical assistance that is available and by what organizations. Such a central group would provide a point of contact for those seeking assistance and for those who can provide it.<sup>7</sup> The need for a coordination and information office for cooperative U.S. marine assistance activities has also been often stated by both U.S. and foreign officials.<sup>8</sup>

Thus, in spite of a recognized need for a coordinating office, no U.S. institutional mechanism, contact point or procedure yet exists. Dr. Richard Meunier, a member of the Marine Technical Assistance Group, has suggested<sup>9</sup> that a national clearinghouse for marine cooperation be established. The clearinghouse would perform informational services and facilitate marine technical cooperation with developing countries through both governmental agencies and private institutions. In my opinion for such an effort to be successful the following aspects for a clearinghouse are necessary:

- 1) Serve as a focal point for foreign countries, institutions or scientists interested in developing marine programs with U.S. institutions.
- Determine interest of U.S. institutions and 2) government agencies in participating in such programs and specific skills and talents they could contribute.
- 3) Transfer foreign communications and requests to appropriate U.S. marine scientists and institutions.
- 4) Evaluate and further clarify the actual request to define needs.
- Coordinate visits, consultations, etc. 5)
- 6) Disseminate information concerning various programs and opportunities (especially foreign) to U.S. community.
- 7) Follow up on programs, as they evolve, and develop an information base concerning style and rules of individual countries towards marine science activities with the U.S.

Many countries will be seeking aid and assistance of a type different from that which most marine scientists or institutions have provided in the past. Many of the developing countries will have a resource-oriented approach, which involves both science, technology and policy components. Some institutions, such as those with Sea Grant Programs, could respond to the resource or management needs but may be less well equipped for a major seagoing oceanographic effort. Programs may often require involvement of more than one group (from more than one university or a university/government combination). Currently such arrangements are very difficult to develop especially when the contact or initiation comes from a developing country. A clearinghouse could simplify and expedite such multi-institutional projects. It should also work closely with government agencies such as the Department of State and the National Science Foundation, and private groups such as the National Academy of Sciences and foundations which often may be recipients of foreign requests for marine assistance.

Working with foreign countries will obviously be expensive and conventional sources of funding (NSF, ONR and NOAA) might not be easily available. Funding from the foreign country, other than in-kind or in-country expenses, will often be minimal. New sources like AID, private foundations or industry might be more appropriate. Linking industry, academia, and government in cooperative efforts with foreign countries should be another goal of the clearinghouse. Industry could benefit from such cooperation since they might later have the opportunity for the future resource development.

The clearinghouse prototype is a concept worth testing in a one-to-two year experiment. It would have to be an honest broker and enjoy having the support of the U.S. marine science community. A coordinating committee and advisory panel, involving the major participants would be needed.

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<sup>8.</sup> Ibid., p. 40.