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Mining the Deep Seabed Implications for International Law and American Foreign Policy

Steven H. Fitzgerald
Old Dominion University

MINING THE DEEP SEABED: IMPLICATIONS FOR INTERNATIONAL LAW AND AMERICAN FOREIGN POLICY

by

Steven H. Fitzgerald
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Approved by:

Philip S. Gillette (Director)

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ABSTRACT

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Steven H. Fitzgerald
Old Dominion University, 1981
Director: Dr. Philip S. Gillette

Whether or not the United States may someday face a mineral shortage, the need for a coherent, unified minerals policy is critical to national objectives and national security. Deep-sea mining may be the answer to American (and world) mineral needs in the twenty-first century. However, there are numerous problems which must be dealt with and resolved in the near future, in order to enable the U.S. (and the world community) to take advantage of vast undersea resources. Deep-sea mining requires the development of technology, tremendous capital investments, and years of labor before production can begin. U.S. policy makers must decide soon whether to pursue an international, regional, or solitary approach to deep-sea mining. The conclusion of this paper is that it is in the best interest of the United States to ratify a U.N. Law of the Sea Treaty, which would also yield more benefits and harmony to the world community.

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Definition of Terms

Terms used herein are defined according to the current United Nations Law of the Sea Conference or by international law.

The Area -- the seabed, ocean floor and subsoil thereof beyond the limits of national jurisdiction ("high seas").

The Authority -- the international seabed authority through which the convention signatories administer the various activities of the Area.

Continental Shelf -- seabed and subsoil of a coastal state comprised of submarine areas extending to the continental slope (which drops to the deep ocean floor) to a depth of 200 meters.

High Seas -- all parts of the sea not included in the exclusive economic zone, in the territorial sea or internal waters of a state, open to all states.

Exclusive Economic Zone -- an area beyond and adjacent to the territorial sea, not to extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.

Territorial Sea -- the sovereign area of a coastal state measured from a specified baseline up to a limit not to exceed 12 nautical miles (sovereignty extends to the air space over the territorial sea as well as to its bed and subsoil).

The Enterprise -- the organ of the Authority which shall carry out exploration and exploitation activities in the Area, as well as transportation, processing, and marketing of minerals recovered.

Single Negotiating Text -- the term given to the forerunner of the current Draft Convention. This text did not constitute a treaty, but a text from which to negotiate the current Convention which will become, upon ratification, the United Nations Law of the Sea Treaty.

CHAPTER ONE

PURPOSE AND ORGANIZATION

Purpose and Objective of the Study

The purpose of this study is to examine the United States interest in one particular aspect of the ongoing United Nations Law of the Sea Conference -- mining of the deep seabed. The main objective is to attempt to determine a foreign policy regarding deep-sea mining which will be consistent with United States national objectives and national security.

Research Questions

The basic research question is this: Should the United States acquiesce to the desires of much of the international community in sharing the means (technology) as well as the harvest from exploiting the deep seabed? Or, should the U.S. act alone in mining for "high seas" resources? Some subsidiary questions and issues which will be touched upon are as follows:

1. The possibility of a vital mineral "crisis" in the United States; worldwide.

2. Questions regarding the U.S. dependence upon foreign countries for energy and non-fuel minerals.

3. Possibilities for passage and ratification of an international treaty concerning seabed resources.

4. Fate of the companies/industries (especially U.S.) with access to advanced mining technology.

5. The future development of deep-sea mining technology.

6. The transfer of technology to lesser developed countries.

7. Questions regarding "ownership" of the resources of the high seas.

8. Questions of moral obligations on the part of the U.S. to the international community.

In order to pursue the stated purpose and objective, it will be necessary to examine the United States dependence upon critical mineral resources, the supply of those resources -- both now and in the future, and the impact of the United Nations Law of the Sea negotiations regarding deep-sea mining, which may someday meet much of the world's mineral resource needs.

Scope and Limitations of the Study

This study is limited in scope to issues of international law and American foreign policy. Because of the nature of the study, oceanographic and technological aspects must receive some treatment, but will not be emphasized.

Due to the ongoing nature of the Law of the Sea (LOS) Conference and the high scholarly interest, it would be possible to produce volumes of material on each of the issue areas, including deep-sea mining. Because of the fact that the issues are linked in the overall convention, it may not be possible to consider thoroughly a single issue. It is unlikely that any form of agreement would be enacted without full agreement on the entire convention. Therefore, when considering United Nations action, it is difficult to focus singularly on the deep-sea mining issue.

However, the demonstrated criticality of the issue to the United States justifies its singular, in-depth study. Ultimate disagreement over this single issue could expose and exacerbate a rift in basic national policies that could force renegotiation or even destroy the entire LOS negotiation process as far as the United States is concerned.

Background

In the past decade, the United States (and most other countries of the world) has been dealing with an "energy crisis" brought on and aggravated by a seemingly unending dependence on foreign fuel supplies (particularly from the Organization of Petroleum Exporting Countries -- OPEC). Recently, U.S. dependence upon foreign suppliers for a wide range of key minerals has been the cause of concern among government and industry leaders. The energy shortage may be looked upon as a mere inconvenience compared to the economic calamity that would result from a cut off of non-fuel minerals absolutely essential to modern industry.

The specific data changes slightly, depending upon which organization or agency does the estimating. However, most U.S. governmental agencies seem to be in agreement on the following.[1] The U.S. is more than 50 percent dependent on foreign sources for over half of the approximately 40 non-fuel minerals described as most essential to our $2.3 trillion dollar economy. Many of these come exclusively from foreign sources and some of the most critical minerals come from highly unstable areas of the world. In 1980, the U.S. was obliged to import 91 percent of its chromium, 88 percent of platinum-group metals, 93 percent of

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[1] Henry M. Jackson, U.S. Senator. "Why Foreign Policy Will Determine Domestic Tranquility in the 1980s," Government Executive 80 (December 1980):14-22.

cobalt, and 97 percent of tantalum and manganese requirements. By contrast, the U.S. was only 42 percent dependent on imported oil. In 1979, the U.S. had to import 25 billion dollars worth of non-fuel minerals. This dependence on foreign sources for raw materials so vital to U.S. industries has been increasing for many years for several reasons, including: technology advancement and legislative and regulatory restrictions imposed on the U.S. industry.[2]

According to Senator Henry Jackson, the United States has two types of shortages -- physical and economic. A physical shortage results from too little of the material in the U.S. to meet the demand. The economic shortage is that, although mineral deposits are available in the U.S. and the extraction and processing technology exists, laws and regulations prohibit mining of the minerals or make it prohibitively expensive. According to Senator Jackson, only 0.3 of one percent of the total U.S. land mass has been mined since 1776 -- and a third of that has been reclaimed. Most of the potential mineral access lies in the more than 750 million acres of public lands -- and, in 1979, about 75 percent of these were either closed or severely restricted to hard rock mining activity.[3]

Currently, according to Senator Jackson, there are 80 different laws administered by 20 different federal agencies which directly or indirectly affect the domestic non-fuel minerals industry.

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[2] Alton D. Slay, "Our Dependence on Critical Materials," Air Force Policy Letter 24 (December 1980):2.

[3] Jackson, "Foreign Policy," p. 19.

Not only have prices soared in recent years, but, as a result of very ambitious OSHA/EPA rule making, many companies are forced out of business or to merge in order to meet costly requirements.

Therefore, even if the U.S. could meet domestic demands domestically, there would be great difficulty in extracting and processing these minerals. However, the United States is today self-sufficient in only five of the 27 minerals considered most essential to modern industry. What are some of these imported minerals -- and how critical are they?

Chromium. Chromium is possibly the single most important strategic mineral to modern civilization. It has also been referred to as the "most unsubstitutable" metal in the world. There is no replacement for chrome in the manufacture of corrosion-resistant steel. Chromium is widely used in oil refining, the petrochemical industry, conventional and nuclear power plants, tanker trucks, gas turbines, industrial machinery, and in all stainless steel. Chrome is considered so vital that for years the United States specifically exempted chrome from the list of embargoed imports from Rhodesia.

Manganese. This metal is essential to the production of steel. Without its qualities to capture the impurities, steel would tear, crack, and break.

Cobalt. This space-age metal is necessary for the superhard alloys used in the aerospace industry. Every jet engine requires from 200 to 900 pounds of this metal. Cobalt is also essential to nuclear-propulsion systems, high-speed cutting tools, synthetic-fuel production, high-grade steels, and integrated circuits.

Alumina and Bauxite. The United States, despite being a major world producer of aluminum metal, relies 94 percent on imports of these two raw materials for aluminum. Without low-weight, high-strength aluminum, the aerospace industry simply could not exist.

Platinum. This high-priced metal, usually considered in the precious metal category, is an essential ingredient in the manufacture of catalytic converters, and is used for its properties as a chemical catalyst.

Tantalum. This essential metal is used mainly in machinery and electronic components.

So critical are mineral supplies in some industries that they must be ordered three years in advance of production. In 1979 and 1980, materials shortages caused delays that prevented the Defense Department from obtaining critical weapons and equipment on schedule.[4]

A complex combination of political, economic, and environmental events has conspired to place the U.S. in a vulnerable situation. Composing only five percent of the world's population, Americans consume about 20 percent of the world's production of non-fuel minerals. Competition for minerals has increased dramatically as western Europe and Japan have become more aggressive in manufacturing and trading. At the same time, many of the industrializing Third World nations are reducing their exports of raw materials in order to meet their own needs.

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[4] Donald E. Fink, "Availability of Strategic Materials Debated," Aviation Week and Space Technology, 5 May 1980, p. 44.

The U.S. arrived at this critical state at least partly by ignoring a basic historical truism -- that a vigorous, healthy economy with assured sources of raw materials is essential to national defense. Rather than looking to the long-term health of our economy, the U.S. has pursued a policy of stockpiling critical materials for use in time of war. Unfortunately, even that policy has been subject to so much political and economic pressure that stockpiles of many critical materials are far below U.S. goals. Chromium, for example, is 180,000 tons short of stockpile goals of 1.35 million tons, and cobalt is 44 million pounds short. The goal for bauxite, from which alumina and aluminum are made, is 27.1 million tons, yet only 14.1 million tons are in the inventory. In all, the National Defense Stockpile is about 50 percent short of targeted levels.[5]

Considering these factors, a mineral shortage seems almost inevitable, although perhaps not in the immediate future. Deep-sea mining may not supply all the world's needs, and certainly will not do so in the near future. However, seabed mining may be the answer to much of the world's mineral needs in the twenty-first century.

Of all the attractions the oceans hold out to mankind, the lures of wealth and resource provision are certainly dominant ones. In addition to the means of transportation and communication that it affords, the wealth it embodies is generally of four kinds: biological, chemical, physical, and geological resources. This study will not be concerned with biological or physical resources. It will also not deal with the

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[5] Fink, "Strategic Materials," p. 44.

chemical resources -- that is, materials that are dissolved in water and are not of immediate economic value.

Marine geological resources could be categorized in three broad groups: organic deposits, detrital deposits, and authigenic deposits. Of these, oil and gas, which are organic deposits, are highly valued. Favorable marine areas for accumulation of oil and gas deposits include large deltas of very old major rivers, closed basins, and long, narrow troughs that parallel the coast and trap sediments from the land. The most common sources for oil and gas occur in certain special environments on the continental shelf.[6] (See Figure 1 or Definition of Terms section for description of the continental shelf.)

Detrital deposits are the result of erosion of preexisting rock, with the eroded material being carried to the oceans by rivers or some other mechanism. Once in the ocean, the detrital material will be carried by waves and currents and eventually deposited on the sea floor. Sand and gravel and heavy minerals such as titanium, zircon, diamonds, tin, monazite iron, and gold are among the detrital deposits. Exploitation of some of these deposits is thus far limited and yields modest economic returns.

Minerals belonging to authigenic deposits accumulate slowly on the ocean floor as chemical and biological precipitates of chemicals derived from the continents and carried in solution within the sea water. Calcium carbonite (gem corals and argonite mud) and phosphorite and manganese nodules may be mentioned as examples of authigenic deposits.

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[6] K.O. Emory and Brian J. Skinner, "Mineral Deposits of the Deep-Ocean Floor," Marine Mining 1 (May 1977):3-40.

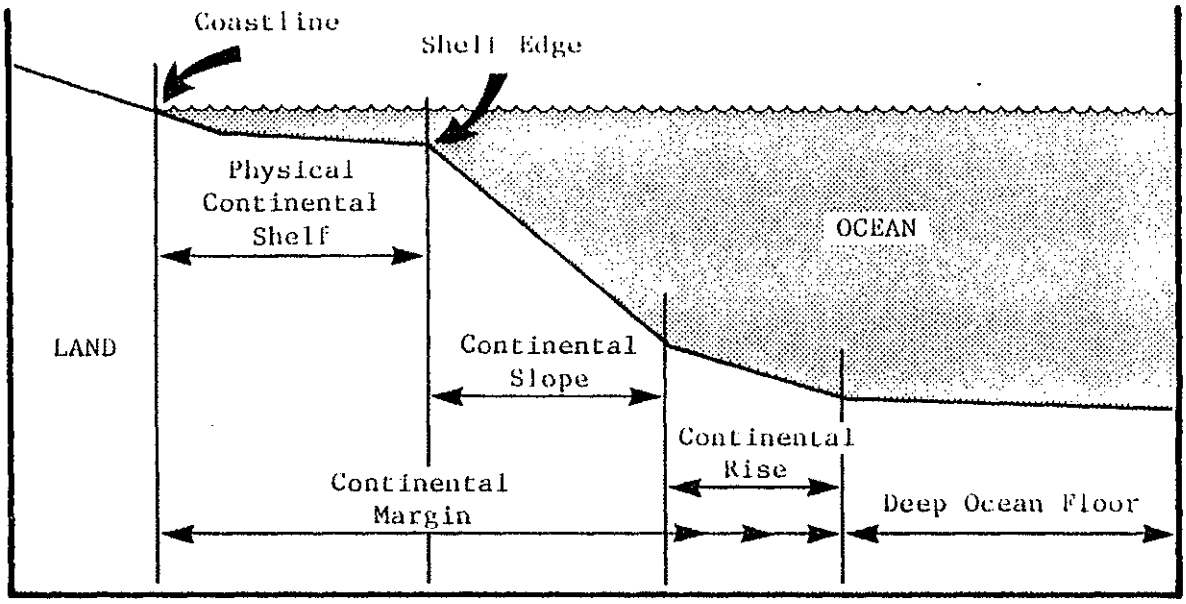

Figure 1. Schematic Representation of Seabeds and Ocean Floors.

Source: U.S. Council on International Economic Policy, "International Economic Report of the President," February 1974, p. 82.

The phosphorite nodules are common on the shallow banks off California and eastern Florida, South Africa, Peru, and Chile. Competition from inexpensive land sources delay their exploitation.

Manganese nodules, however, have greater economic potential than the phosphorite nodules.[7] They are a black to brown colored hydrous manganese dioxide concentration and contain silica, manganese, iron, copper, nickel, cobalt, lead, and aluminum. Nodules, pavements, crusts, and coatings occur atop rock in many areas and on sediment floors that have a slow rate of deposition. In sedimentary environments the nodules appear to be occasionally rolled about and are concentrated, but not confined to the sediment surface. (See Figure 2)

The economic attraction of manganese nodules is their high concentrations of copper, nickel, and cobalt. Nickel is of interest because of the small number of economic deposits on land, and it is concentrated in the same nodules that are also rich in copper. Cobalt is concentrated in many nodules, but its distribution is much more erratic than that of copper and nickel. Manganese itself is "relatively unimportant," at least by present economic standards, because its percentage in the nodules is less than half that in extensive deposits being mined on land.[8]

The manganese nodules occur over wide areas of the ocean floor. According to recent studies, the North Pacific has by far the most

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[7] Ibid., p. 34.

[8] Emory, "Mineral Deposits," p. 34.

Figure 2. Manganese Nodules.

Courtesy of the Smithsonian Institute.

extensive deposits over large areas. The densest concentration reportedly lies between 6° North and 20° North and from 110° West to 180° West.[9] While there are large provinces of nodules in the Atlantic and the Indian Oceans, because of high sedimentation in those parts, they are poorly developed.[10] [11] (See Figure 3)

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[9] Ross D. Eckert, Economic Enclosure of Ocean Resources (Stanford: Hoover Press, 1979), pp. 214-219.

[10] Eckert, Economic Enclosure, p. 6. The nodules of the Pacific are of both geological and economical importance. Here the most valuable deposits rich in nickel and copper are available. Most nickel-rich nodules occur in siliceous deposits at depths from 4,000 to 5,600 meters, with maximum nickel values in nodules obtained from 4,900 meters.

[11] For the sake of completeness, mention should be made of pods of hot brines as also being of possible economic value. The hot brines discovered at the bottom of the Red Sea contain abnormally high concentrations of copper, zinc, and silver. However, problems of recovery and separation of deposits presently impede their utilization as a resource base. (See Eckert, Economic Enclosure, p. 6.)

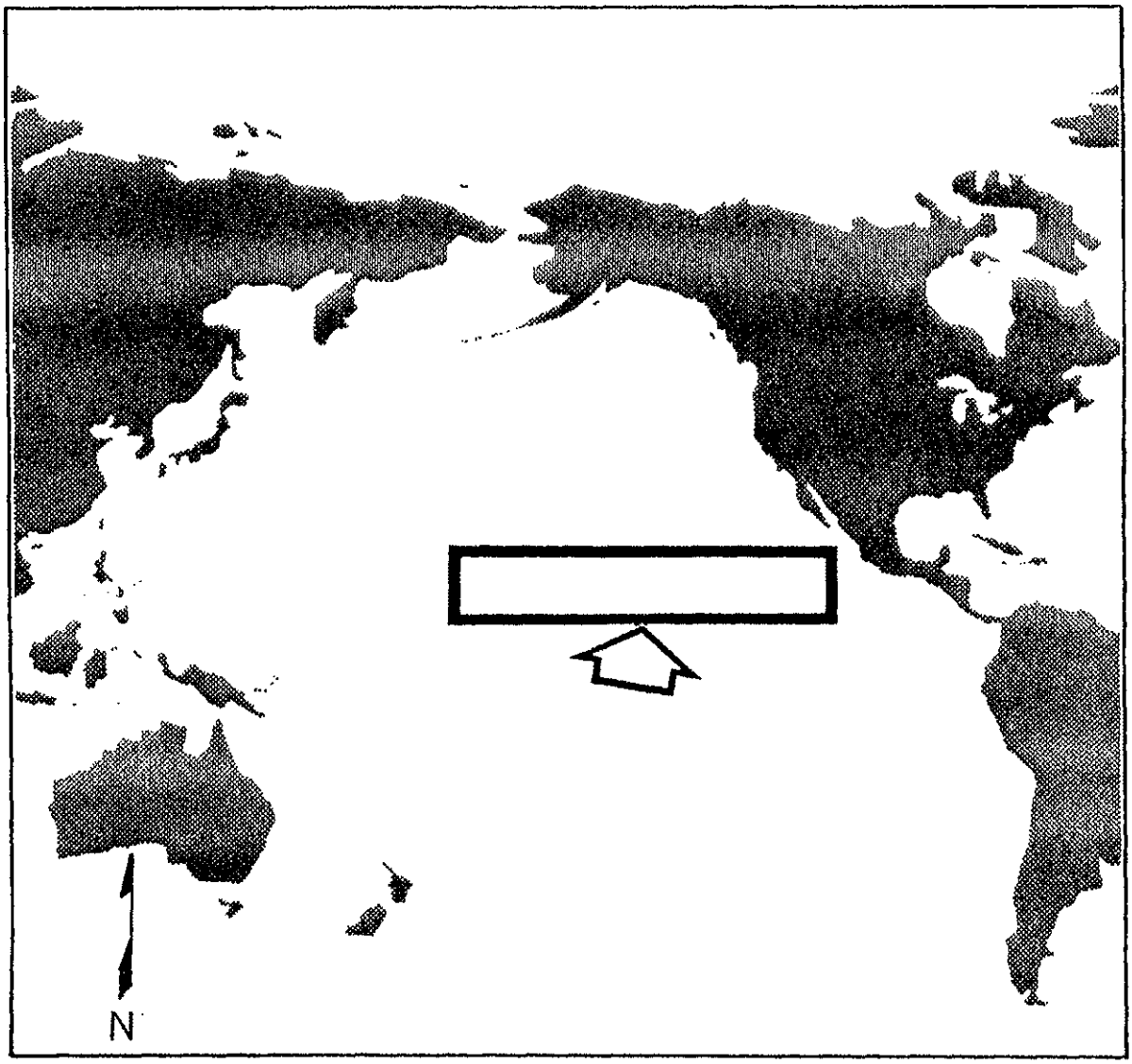

Figure 3. World's Densest Concentration of Manganese Nodules.

Source: Eckert, Economic Enclosure of Ocean Resources, p. 6.

The Problem

Currently, the four geographic areas from which the United States imports most of its non-energy minerals vary in internal political stability and vulnerability to external influence. The strategic importance of these areas to the United States and their potential impact on U.S. policy are summarized below.

Southern Africa: From a non-energy mineral resource standpoint, southern Africa is one of the richest areas in the world, and, therefore, among the most strategically significant to the United States and its allies. More than half of the world's gold, industrial and gem diamonds, and cobalt and nearly one-third of the world's antimony, chromite, vanadium, vermiculite, and platinum group metals is produced by southern African nations. The United States generally relies on these nations for more than 25 percent of its antimony ores, concentrates, and oxides, chromium, cobalt, corundum, industrial diamonds, ferromanganese, platinum group metals, and vanadium.[12]

Table 1 shows the mineral reserves of the Republic of South Africa as a percentage of African, western, and world reserves. More than 40 percent of the western world's reserves of chromite, fluorspar, gold, manganese, platinum group metals, titanium, and vanadium is located in that country. Of these seven minerals, five (chromite, manganese,

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[12] U.S. Department of the Interior, Bureau of Mines, Mineral Commodity Summaries 1981, pp. 9-177.

TABLE 1

Mineral Reserves of South Africa

Commodity	Percent of African Reserves	Percent of Western World Reserves	Percent of World Reserves
Antimony	99%	10%	4%
Asbestos	77	14	10
Chromite	85	84	83
Copper	10	2	2
Industrial Diamonds	8	8	7
Fluorspar	98	50	46
Gold	94	61	49
Iron Ore	66	6	4
Lead	54	5	4
Nickel	86	12	10
Manganese	94	84	48
Phosphate Rock	10	8	8
Platinum Group Metals	99	99	86
Tin	10	2	1
Titanium	93	40	5
Vanadium	99	96	64
Zinc	63	9	9

Source: U.S. Bureau of Mines, 1979.

platinum group metals, titanium, and vanadium) are considered to be strategic. Because of the inherent economic instability of most southern African nations, an interruption in the flow of these minerals could occur at any time.

West and Southwest Pacific: The reliance of the U.S. and its allies on Australian mineral exports is significant. Approximately 67 percent of the alumina and 43 percent of the ilmenite (an ore used primarily in producing titanium dioxide pigment) imported by the U.S. is from Australia. More than 70 and 45 percent, respectively, of United States imports of tin and tantalum come from southeast Asian nations, principally Malaysia and Thailand. This area of the world is, again, highly vulnerable to internally or externally-motivated political or economic instability.[13]

Latin America: More than 80 percent of the bauxite, 73 percent of the columbium, and 25 percent of the iron ore and vanadium imported by the United States is from Latin American nations. The U.S. also is dependent on Mexico for 90 percent of its strontium and 55 percent of its fluorspar requirements. With few exceptions, Latin American nations are economically and politically unstable.[14]

North America: The United States obtains more than 25 percent of its asbestos, copper, gold, gypsum, ilmenite, iron ore, lead, nickel,

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[13] Ibid., pp. 16-159.

[14] Ibid., pp. 38-175.

potash, silver, and zinc imports from Canada. It is probable that the U.S. can rely on Canadian sources of minerals over the foreseeable future.[15]

In summary, the numerous minerals previously described are critical to U.S. economy and vital to U.S. national defense. The United States, for a number of geological, political, technological, and economic reasons, must continue to rely, at least over the near-term, on mineral imports. However, as is the case with any other internationally traded commodity, there is no guarantee that the U.S. can continue to depend on existing or potential foreign sources. Because of the changing political, social, and economic aspirations of nations, foreign mineral reserves now available to the U.S. may in the future be restricted either for use solely by the nation in which the mineral reserves are found, or by that nation's allies.

Given the uncertainty of future mineral imports from various countries, the United States government should do everything in its power to encourage this nation's mining industry to explore for and develop in an environmentally acceptable manner additional domestic mineral reserves. It is also imperative that the U.S. government promote research directed towards developing new materials, such as composites, that can be substituted for some of the minerals and metals in which this nation is deficient.

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[15] Ibid., pp. 12-181.

The deep seabed does, however, offer a potential resource supply with vast reserves. Manganese nodules, in particular, may be the single most valuable resource of the seabed. Of the estimated total of 1.5 trillion tons of nodules, it has been suggested that there are between 10 billion and 500 billion tons of nodules which it would be economically feasible to mine.[16] At current consumption levels, 100 billion tons of nodules contain enough nickel to supply the total world demand for 1,600 years.[17] The overall point here is that, at the minimum, effective measures must be taken by the United States to increase its strategic mineral self-sufficiency and to develop new substitute materials where possible. However, many of the required resources are available from the deep seabed. Technology is or can be developed to extract and produce them, and the motivation is high (both politically and economically) to begin the process. Only an appropriate agreement or designated course of action (policy) on the part of the United States government delays production.

Although we may not see a mineral shortage in the immediate future, the need for a coherent, unified policy regarding production and stockpiling of critical minerals is a necessity for the United States (and worldwide). Deep-sea mining may be the answer to at least part of our

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16 I.G. Bulkley, Who Gains from Deep Ocean Mining (Berkeley: University of California Press, 1979), p. 1.

17 Ibid., p. 1.

mineral needs in the twenty-first century. However, there are numerous issues and problems which must be dealt with and resolved in the near future, otherwise the U.S. and the world community will be unable to take advantage of the vast undersea resources.

The development of appropriate technology is very expensive and time consuming. Those industries involved must be stimulated now so that the technology will be available when the need is greatest. It is possible that international policy now under consideration could stifle investment in technology development. The United States may be forced to choose between what is best for the world community and what is best for the U.S.

Many countries of the world (especially lesser developed countries) maintain that the resources of the deep seabed are the "common heritage of mankind," and that the resources and the technology to develop them must be shared by all nations. This policy may very well discourage technology development born of a (capitalistic) profit motive. Since the U.S. is practically the only nation capable of real strides in this area, this policy could result in denial of technology and much-needed mineral resources to the United States and the world.

Evolution of Three U.S. Policy Alternatives

In December 1872, H.M.S. CHALLENGER, a wooden steamship, set out on an epic scientific exploration of the oceans. During the following four years it circumnavigated the planet and took measurements of depths, temperatures, currents, observed contours, and took samples of the flora, fauna, and sediments in every major ocean. The charts and surveys amassed by the CHALLENGER expedition were eventually published in a series of 50 volumes which mark the beginning of oceanography as a separate field of systematic inquiry.

One of the major discoveries of the CHALLENGER was that nodules of rocklike materials, often the size and shape of potatoes, lay on the deepest bottoms of the Atlantic, the Indian, and particularly the Pacific Oceans. The nodules were recognized then to be rich in several minerals, but they remained a scientific curiosity until the 1950s. Rising prices of metals and advances in technology have recently generated great interest in these resources and have raised the possibility that they can be exploited commercially.

There is, however, substantial controversy over the manner in which they should be exploited. In particular, the possibility of unregulated competition among private firms to mine the seabeds has met with widespread concern. Leaders of major powers are fearful that unregulated competition for nodules could lead to international instability or even conflict. Leaders of poorer nations presently without the technology

to exploit believe that these mineral riches should be the "common heritage of mankind" and should be mined by an international organization mainly for the benefit of states that are at a disadvantage in wealth or geography. Some economists have argued that exploitation would be inefficient without regulations that create exclusive property rights to unmined deposits. The ocean miners, for their part, are of two minds on the prospective benefits of regulation. On the one hand, they are concerned that the creation of a strong international regime to control all access to the deep seabed would attempt to protect land-based minerals producers and possibly discriminate against enterprise miners. But some miners also contend that bankers are generally unwilling to extend vast loans without settled seabed property rights that would indicate security of tenure and reduce the possibilities of claim jumping. The continued uncertainty about an international agreement that might call for restrictions in seabed production by private miners or subject them to onerous taxes and royalties has, according to the miners, caused them to postpone investments and has raised the total cost of their activities. For all these reasons, ocean mining and possibly an international authority to regulate it have become one of the thorniest issues at the Law of the Sea Conference.

The crucial decisions facing the United States form the basis for the three policy alternatives of the study.

1. The United States accepts and adheres to an international Law of the Sea treaty when ratified by the United Nations participants.

2. The U.S. does not ratify an international Law of the Sea treaty, but reaches mutually beneficial regional agreements.

3. The U.S. does not ratify any agreement (international or regional), and elects to act alone in the application of technology to mining the deep seabed.

In order to select these three alternatives, it was necessary to analyze the positions of each of the participants or potential participants, specifically, those countries involved in the Law of the Sea conferences, the U.S. government (particularly the Carter Administration), and the U.S. mining corporations. The overall position of the delegates to the LOS conventions can probably best be obtained from the most recent "Draft Convention,"[18] realizing that this document represents numerous compromises in seven years of negotiations. The position of the Carter Administration was made very clear by Ambassador Elliot L. Richardson, Special Representative of the President for the Law of the Sea Conference, in his many testimonies before various sub-committees of the U.S. Congress, and is best summarized in his address before the American Mining Congress in San Francisco on September 24, 1980.[19]

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[18] United Nations Conference on the Law of the Sea, "Draft Convention on the Law of the Sea (Informal Text)," September 2, 1980. (Portions of this convention are recorded in the Appendixes section.)

[19] Elliot L. Richardson, "Seabed Mining and Law of the Sea," U.S. Department of State Bulletin 80 (December 1980):60-64.

The U.S. mining corporations/consortiums have also testified on numerous occasions before various Congressional subcommittees, and the Congressional records provide the best insight as to their consolidated positions regarding all aspects of the LOS convention.

Bearing in mind the overall objective of this study (to determine an appropriate policy regarding deep-sea mining), and the methodology and sources used, the three alternatives appear to entail the most logical and plausible of potential U.S. actions. That is, ultimately the selected course of direction taken by the U.S. government should fall into one of those three categories, or conceivably, a combination thereof.

The primary sources used (Congressional records and the Draft Convention itself) appear to be the most appropriate, the most accurate, and certainly reflect the most current thinking through the end of the Carter Administration.[20] The actual choice of an LOS policy will probably be made by President Reagan. Although his basic political philosophy is quite different from that of the former president, he will, nonetheless, be faced with the same three options.

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[20] It should be pointed out here that, as of early March 1981, there appear to be indications of at least a rethinking of the United States position vis-a-vis the Draft Convention and the entire LOS negotiations by the Reagan Administration. (See "U.S. Bars Treaty in Spring on Use of Sea Resources," New York Times, 4 March 1981, p. A1.)

Organization of the Report

With the ultimate intention of discerning a proper foreign policy course of action for the United States regarding deep-sea mining, it will be necessary to provide considerable background. Therefore, information on past foreign policy, circumstances regarding minerals and U.S. dependence on foreign sources, and political and economic climates in supplier-states will be presented throughout the study.

Chapters three through five detail three options describing three possible United States foreign policy alternatives. Background is provided for each alternative as well as an analysis of the net effects of U.S. adoption of such a policy.

As the government of President Reagan takes shape in early 1981, it is becoming apparent that major policy shifts may be in the offing. Should a policy shift occur regarding the Law of the Sea in general or deep-sea mining in specific, it would be away from an international agreement. The concluding chapter will emphasize overall implications regarding each of the three possible courses of action.

CHAPTER TWO

REVIEW OF RELATED RESEARCH

Review of Related Research

After considerable research into the study area, it has become apparent that most current published works on the subject can be placed into four broad categories:

1. United Nations publications (documents and treaties).

2. United States government publications (mostly Congressional hearings).

3. Scientific publications.

4. Works of scholars, scholarly organizations/interest groups.

Evaluation

There is a vast amount of data available, primarily in the oceanography or technology-related fields. Most scholarly works are in those fields of study. Some research has been done by law of the sea advocacy groups such as the Law of the Sea Institute. This prestigious organization is composed of scholars, lawyers, engineers, and geographers, and holds annual conferences to air current issues. (The conference which primarily dealt with deep-sea mining was the Tenth Annual Conference, June 22-25, 1976. The conference "Proceedings" are referenced in the Bibliography section of this paper.) Additionally, a review of scholarly works of related research has been completed. Six recent doctoral dissertation abstracts which deal with related issues were reviewed.[1]

All of these works offer much useful background information. However, in each case the views and concerns expressed have since been overcome by events. The primary reason for this is that until September 1980, there was no generally accepted draft treaty. Previously, the U.N. Law of the Sea Conference had produced a document called the "Single

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[1] Patricia Colling, ed., Dissertation Abstracts 41 vols. (Ann Arbor: Greenway Publishers, 1981).

Negotiating Text," which U.S. Ambassador Elliot Richardson described as "totally unacceptable."[2] Most of the political-legal research and analysis heretofore dealt with problems and criticisms of that Single Negotiating Text, which have since been resolved.

The concentration of sources for this study will be mostly in United Nations publications and U.S. government publications since these provide the most current data. Due to the time-sensitive nature of the issues, there is a need for current analysis, especially since there has been no published research to date (scholarly or otherwise) with the new Draft Convention at the center of consideration. Disregarding the time-sensitive issues, there is much historical background of value as well as suggestions for alternative courses of action which still remain as viable options in the event of future negotiation breakdowns. Some of these alternatives will be discussed in Chapters Four and Five.

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[2] Richardson, "Seabed Mining," p. 60.

Conclusions

An important point which needs to be emphasized here is that this and any review of related research reveals the need for current, objective analysis of the issues, especially regarding the development of United States foreign policy over the next 10 to 20 years.

With the development of the new Draft Convention, researchers must begin anew the process of analyzing and dissecting the various articles and issues. Previous arguments and concerns with the former negotiating texts are now out of date. Background and expanded data are necessary and beneficial in the examination of deep seabed issues. However, much is at stake in American foreign policy formulation over the near term, as shall be shown in subsequent chapters.

CHAPTER THREE

THE UNITED STATES AND INTERNATIONAL LAW OF THE SEA

The United States and International Law of the Sea

First Policy Alternative: The United States ratifies an international Law of the Sea treaty.

Background

Although the issues are relatively familiar today (especially with oil and mineral supply concerns), the international community has only begun to deal with resources of the high seas. The 1958 Law of the Sea Conference began to deal with related issue areas. Interestingly, the Convention on the Continental Shelf, April 1958, which dealt primarily with ownership -- rights of exploration and exploitation -- within the area of the territorial sea, expressed no acceptance of the doctrine that the continental shelf below the high seas belongs -- or ought to belong -- to the international community as a whole.[1] The Second Geneva Conference (1960) dealt primarily with the issues of the breadth of the territorial sea and fishing limits. Certainly these issues are primary and should theoretically be resolved before dealing with "high seas" issues. However, the Second Conference also failed to achieve its goals.

Interestingly then, seabed resources were not on the agenda up to this point. In 1967 it was first officially recognized that there might be some resources of commercial value on the ocean floor outside the limits of national jurisdiction, and that the question of who was entitled to this wealth could prove to be a source of international conflict. On the initiative of Malta, the General Assembly considered the

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[1] U.S. Department of State, Digest of International Law, 1965, by Marjorie Whiteman, (Washington, D.C.: Government Printing Office, 1965), p. 930.

question of the peaceful uses of the resources of the ocean floor in the interests of mankind as a whole. A 35-member ad hoc committee was set up to study the issue. In 1968 the General Assembly replaced the ad hoc committee with a 42-member Committee on the Peaceful Uses of the Sea-Bed and Ocean Floor Beyond the Limits of National Jurisdiction. The task of this committee was to examine the principles which should govern exploitation of resources in this international area if they were to be developed in the interests of mankind as a whole. On the basis of the work of this committee, the General Assembly in 1970 unanimously adopted a declaration of principles governing the use of the seabed. The major points in this declaration were as follows:

> (1) The seabed and ocean floor, and the subsoil thereof, beyond the limits of national jurisdiction as well as the resources of the area, are the common heritage of mankind; the area is not subject to appropriation and no state may claim or exercise sovereignty over any part thereof; no state or person shall claim, exercise, or acquire rights with respect to the area or its resources incompatible with the international regime to be established and the principle of this declaration.
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> (2) The area is open to use exclusively for peaceful purposes.
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> (3) The exploration of the area and the exploitation of its resources are to be carried out for the benefit of mankind as a whole.[2]

The General Assembly then decided to convene a third conference on the Law of the Sea in 1973 to deal with the establishment of an equitable regime to govern all exploitation of resources of the seabed and ocean floor, related issues concerning the regimes of the high seas, the continental shelf, the territorial sea, fishing and conservation of

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[2] Bulkley, "Deep Ocean Mining," p. 3.

living resources, preservation of marine environment, and scientific research. The terms of reference of the Sea-Bed Committee were changed so that it became a Preparatory Committee for LOS III.

The Third U.N. Law of the Sea Conference (LOS III) was held in Caracas, Venezuela, in the summer of 1974. It settled nothing. The almost 5,000 delegates from 148 nations adopted no conventions, no regulations, and reached only one recommendation: that they reconvene for another session in the Caracas in the following summer. LOS III has been exhaustively described and analyzed by many scholarly and interest groups. The intention here is not to repeat this effort, but to summarize briefly and to highlight the basic alternatives available to the international community.

LOS III has met nine times and produced negotiating texts on most ocean issues. The current Draft Convention represents agreement on many navigational and coastal resource issues. It attempts to balance the interests of the major maritime nations, the developing coastal states, the landlocked and geographically disadvantaged states, and the "Group of 77" caucus of 119 developing countries.

Some form of comprehensive oceans treaty is necessary to contain the wide array of coastal states' claims of jurisdiction in the oceans. These claims, include territorial seas issues which could pose threats to naval mobility, the flow of commercial traffic, and overflights. Some of these claims restrict the right of "innocent passage." (Passage is "innocent" so long as it is not prejudicial to the peace, good order, or security of the coastal state. Such passage applies only

in territorial seas and in international waters of a coastal state and outside a designated "high seas" corridor.)

Without an oceans treaty, the 12-nautical mile territorial sea limit could eliminate high seas corridors in straits less than 24 nautical miles wide and bordered by two or more countries. Many of the world's most important straits are in this category: for example, the Strait of Gibraltar, separating the Atlantic from the Mediterranean; the Strait of Hormuz at the entrance to the Persian Gulf; the Bab el Mandeb Strait, connecting the Indian Ocean to the Red Sea and the Suez Canal; the Malacca-Singapore Straits, connecting the Northern Indian Ocean and the Pacific; and the Tsushima Strait (also known as the Korean Strait), connecting the Sea of Japan with the Yellow and East China Seas. Eliminating high-seas corridors in these straits could seriously impair the movement of U.S. (not to mention other) naval vessels which depend on complete mobility in the oceans and unimpeded passage through international straits. At stake in this single issue is U.S. overseas trade, which is increasingly more vulnerable to distant political developments.

There are many issues being dealt with by the current Draft Convention, and it should be easily recognized by now that it is in the interest of the United States (and all nations employing ocean-going vessels) to have an internationally accepted treaty to protect each of these varied features. And it is necessary to point out here again that it is virtually impossible for these issues to be separated or for piecemeal approval of separate issues to occur. Therefore, the U.S. must either heartily pursue an acceptable international (or regional) agreement or face possible legal chaos at sea.

The most controversial feature of the current Draft Convention[3] is its provision for the establishment of an International Seabed Authority to organize and control the mining of the deep seabeds beyond the limits of national jurisdiction. According to the Draft Convention, the International Seabed Authority (ISA) would license corporate mining under a "parallel system" of exploitation designed to encourage developing country participation in seabed mining.[4] The parallel system was actually presented by former U.S. Secretary of State, Henry A. Kissinger, in April 1976. Dr. Kissinger's proposal called for a system of "parallel access" to seabed resources, under which, whenever a deep seabed mining site is set aside for state or private exploitation, a similar site would be set aside for the international community. The United States also proposed that the following issues be included in any future treaty:

1. The formation of an International Seabed Resource Authority (ISA) to supervise exploration and development of the deep seabeds.

2. The Authority (see also the Definition of Terms section) would be comprised of four principle organs:

- An Assembly of all member states to give general policy guidance;

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[3] The appendix section offers several applicable portions of the current Draft Convention for more in-depth analysis.

[4] United Nations, "Draft Convention," Annex III, pp. 130-151.

- A Council, to serve as executive, policy-level and main decision-making forum;

- A Tribunal, to resolve disputes through legal processes; and

- A Secretariat, to carry out the day-to-day administrative activities of the Authority.

3. A requirement for guaranteed access for states and their nationals to deep seabed resources (with reasonable conditions).

4. The creation of an Enterprise under the Authority, to exploit the deep seabeds -- primarily a mining organization (see also the Definition of Terms section.)

5. The reservation of prime mining sites for exclusive exploitation by the Enterprise or by the developing countries directly (includes the "parallel access" concept).

6. A system for sharing the revenues from mining activities for the use of the international community, primarily for the needs of the poorest countries.

7. The sharing of technology with, and training of personnel from, developing countries.[5]

(Interestingly, many of the proposals which various U.S. interests find so distasteful today were actually introduced by U.S. delegates. It

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[5] U.S. Department of State, Digest of United States Practice in International Law, 1976, (Washington, D.C.: Government Printing Office, 1977), pp. 365-368.

should be noted again, though, that most articles placed in the current Draft Convention are compromises and are the result of give-and-take between nations and issues -- as will be discussed later in this chapter.)

According to the Draft Convention, the mining arm of the ISA, the Enterprise, would exploit portions of the international seabed for the benefit of the developing countries. Executive control of the ISA would be vested in the Council (as proposed by the United States) made up of 36 states selected according to economic and geographic criteria.

In reviewing the position of U.S. mining firms (especially as revealed in numerous Congressional testimonies), it is obvious that they are seeking improvements in the text that would assure access to strategic seabed minerals and lessen what mining consortiums view as precedent-setting effects of the Draft Convention. From the beginning, the mining consortiums have insisted on several "minimal" concessions: a system of "preparatory investment protection" for mining investments made prior to entry into force of a treaty; creation of a preparatory commission that would draft the provisional rules, regulations, and procedures for the ISA; and deletion of the "Brazil Clause," which obligates prospective seabed miners to sell their mining technology to developing countries.[6]

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[6] Adoption of the "Brazil Clause," probably the most popular of the critical articles, could set a precedent in the area of technology and thereby create problems in other North-South negotiations.

The overall concerns of the mining industry are most accurately set forth in a series of communications between Ambassador Richardson and Mr. Marne A. Dubs, Chairman of the American Mining Congress, Committee on Undersea Mineral Resources.[7] On February 29, 1980, Mr. Dubs responded to Ambassador Richardson's request that the industry carefully analyze the then-current negotiating text and provide recommendations. Mr. Dubs enumerated a list of 11 "fundamentally unacceptable" issues, as follows:

1. The unworkable system of access to ocean minerals;

2. The confiscatory requirements for technology transfer;

3. The extensive competitive advantages, largely at U.S. taxpayer expense, accorded the Enterprise;

4. The ability of the International Seabed Authority to force private companies into joint ventures with the Enterprise;

5. The financial burdens imposed upon private companies wishing to mine ocean minerals;

6. The market distorting and inflationary system of production controls on seabed mineral mining to be imposed by the International Seabed Authority;

7. The Authority's open-ended power to regulate all other seabed mineral production, including petroleum;

8. The system of world government to be imposed by the treaty which, in addition to abrogating existing legal rights enjoyed by the United States, would also grant the USSR superior political power over the United States;

9. The probable distribution of revenues received by the Authority to world terrorist groups, including the PLO;

10. The likely moratorium on ocean mining by private companies which would result form international reviews and restructuring of the regime; and

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[7] U.S. Congress, House, Hearing Before the Committee on Foreign Affairs, 96th Cong., 2nd Sess., 1980, pp. 77-84.

11. The dispute settlement system which is biased against all developed countries.[8]

On April 29, 1980, Ambassador Richardson responded with an item-by-item account of progress made as of that date on each of the 11 issues.[9] The following is a summary of his response, made after the second revision to the negotiating text.

1. The "unworkable system" of access: the Authority now must grant a contract to a miner who has "fulfilled a limited set of objective requirements..."

2. The "confiscatory requirements" for technology transfer: the transfer of technology is no longer a condition for access to a mining site, and the only technology which will be negotiated for (especially as discussed below) will be mining technology, not processing technology. The only negative aspect left in the revised text is the "Brazil Clause," allowing developing countries under certain circumstances to "stand in the shoes" of the Enterprise to buy technology. Therefore, when the technology is sold (under limited circumstances), a developing country (also under limited circumstances) may step in to make the purchase.

3. The "extensive competitive advantages" accorded the Enterprise: the preferences granted the Enterprise have been "significantly reduced." There is no longer an automatic tax exemption (since the second revision), and once a positive cash flow has been

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[8] Ibid,, pp. 78-79.

[9] Ibid., pp. 80-84.

established (ten years maximum), the Enterprise will be required to pay the same financial arrangements as will private miners. Also, the Council has been given a greater role in determining the conduct of Enterprise business.

4. The forcing of private companies into joint ventures with the Enterprise: joint ventures are now wholly optional.

5. The imposition of "financial burdens" upon private companies: financial arrangements are now "far less burdensome" with the introduction of the principle of low profits/low payments, high profits/high payments.

6. The "market distorting and inflationary system" of production controls: the new formula in the revised text "remedies the low-growth problem," and assures potential miners of sufficient tonnage to allow for orderly and natural growth.

7. The Authority's "open-ended power" to regulate all other seabed production, including petroleum: it was the position of Ambassador Richardson and the Carter Administration that the likelihood of hydrocarbons existing under the deep seabed is very slight, and that the U.S. would not wish to be forced to negotiate an entire new treaty for each mineral as it is discovered (this seems to be a very reasonable position on both counts).

8. The "system of world government" to be imposed by the treaty which would abrogate "existing legal rights" as well as grant the USSR "superior political power over the United States:" this issue

was not resolved at the spring session (and is reflected thusly in Ambassador Richardson's response); however, a compromise acceptable to the mining interests was reached in the summer session (1980).[10]

9. The probable distribution of revenues to world terrorist groups: this issue was also not settled at the spring 1980 session, although the U.S. made very clear the point that it would ratify no treaty with such provisions. This matter was also settled later at the summer session.[11]

10. The "likely moratorium" on ocean mining by private companies: by the second revision of the negotiating text at the spring 1980 session, the moratorium was eliminated.[12]

11. The dispute settlement system "which is biased against all developed countries:" fundamental changes were made in the dispute settlement structure, allowing for commercial arbitration (much preferable to resolution of disputes in courts, such as the Seabeds Disputes Chamber of the Law of the Sea Tribunal).[13]

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10 Ibid., pp. 80-84. See also Richardson, "Seabed Mining," p. 60.

11 Ibid.

12 Ibid.

13 Ibid.

The reasons for spending so much time and space with the mining consortium arguments are numerous. Primarily, though, this summary gives the reader an excellent overall view of the issues which have caused so much heartburn for the mining industry and for the U.S. delegation. Also, the Carter Administration in general, and Ambassador Richardson in particular allowed tremendous influence by and interaction with the U.S. mining interests regarding this particular issue of the Law of the Sea. Review of all of the various Congressional subcommittee hearings[14] demonstrates that the negotiating delegations as well as Congressional subcommittees sought the advice and active participation of the mining interests from the very early stages of the LOS conferences.

An overriding conclusion which must be drawn, then, is that the interests of U.S. mining corporations were at the least adequately attended to, if not completely protected. The United States government has actually been attempting to "mediate" between the interests of its own mining consortiums and those of foreign governments -- some totally opposed to every U.S. position. Considering this fact, it seems almost a miracle that a middle ground, acceptable to both sides, could be found. This makes the work and successes of the Richardson negotiating team appear all the more worthy of note.

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[14] A specific example will not be cited here, only an invitation to review any of the "Hearings" documents referenced in the Bibliography. Any of those texts will demonstrate the manner in which the U.S. delegation as well as Congress depended upon the mining interests for counsel and specific advice on all the controversial issues.

What, then, would be the objections on the part of the United States to the current Draft Convention? Indeed, what would be the objections on the part of the developing countries to the current text? For both sides, it can only be said that they would hope for more concessions to each of their individual demands. It must be remembered that with 320 articles and eight annexes treating such a broad range of issues, the Draft Convention represents a web of compromises that does not satisfy all of the objectives of any one state. If the overall question is whether or not this particular Draft Convention should be adopted, then the pressure is really on for the new negotiating team (Reagan Administration)[15] to either accept the work of the previous team or identify problem areas and cause further delays in this seven-year-old process. If, however, the overall question is whether or not to pursue international negotiations at all, then the solution is a bit less time sensitive. One would think, however, that the only sure way of removing threats and uncertainties of international challenges to any state's national policy would be through the establishment of a universally recognized legal regime.

In regards to the United States concerns, the "bottom line" seems to be this: to justify spending a billion dollars on a single seabed

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15 "President Replaces Top Diplomats at Law of Sea Talks," New York Times, 9 March 1981, p. 1.

mining project,[16] an investor is entitled to insist on at least the following: assured access to the opportunity to exploit a specific mine-site; a fair chance to earn a return on investment commensurate with the risk undertaken; and solid protection against the arbitrary or unpredictable use or abuse of the Authority's power. Each of these minimal demands seems to have been met as previously discussed within the provisions of the current Draft Convention.

At the same time, there have been no indications that key foreign states or blocs of states are wavering in pursuit of their LOS goals or are contemplating major disputes which will force renegotiations.[17] Western Europe, the Soviet Union, and Japan have continued to see a comprehensive Law of the Sea Treaty as being helpful containing unilateral acts of expanded jurisdiction by coastal states that threatten freedom of navigation.

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[16] Most works outlining investment costs seem to agree on the billion dollar figure as a reasonable minimum, and the minimum time prior to commercial production as above five years. A representative example can be found in Law of the Sea Institute, Proceedings of Tenth Annual Conference, University of Rhode Island, 1976 (Cambridge, Mass., 1977), pp. 336-337. In this model, the author, from the Ocean Engineering Department at MIT estimates minimum Research and Development expenses to be $25 million, total minimum capital investment at $350 million, minimum annual operating costs at $105 million for 20 years (all in 1976 dollars).

[17] Two previously mentioned New York Times articles (4 and 9 March 1981) indicate that the U.S. may be planning to force renegotiations.

In recent years, continued participation by the developing nations has hung largely on their hopes for a deep seabed mining regime that would be a breakthrough for their new international economic order. The developing countries have been adamant in their demands that any future seabed mining regime include provisions for the transfer of technology, production controls, and a meaningful voice for the "third world." In their view, this is the price the industrialized nations must pay for a convention that also guarantees naval mobility. The developing countries almost certainly would move to renegotiate the navigation provisions of the Draft Convention if the developed countries attempt to strip the International Seabed Authority of its powers.[18]

Therefore, if the question were whether or not to pursue an international agreement on deep-sea mining, it should be in the best interests of the United States (as well as other countries) to know that their actions are accepted by the international community and in keeping with principles of international law. Where the interests of the U.S. (particularly national security interests) lead to the establishment of a position at odds with the majority of the world community, and/or at odds with international law, then basic, fundamental philosophies must be rethought. International law is, by its very nature and definition, "binding upon civilized states in their relations with one another."[19]

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[18] This would also present the Soviet Union with a dilemma. The USSR would have to balance its interest in preserving navigational freedom with the political attractiveness of siding with the developing countries in any North-South confrontation.

[19] J. L. Brierly, The Law of Nations, (London: Oxford University Press, 1963), p. 1.

It would seem logical to make these basic value judgments before an international Law of the Sea treaty is codified. The question is, then, whether or not the United States should accept the current Draft Convention, to attempt to force renegotiations (if deemed necessary by the Reagan Administration), or to be a non-signatory to the treaty and act in some other fashion.

The Reagan Administration is free to make any of these choices, and the timing is right and yields a thrilling setting: a new U.S. President; a new, more conservative, nationalistic philosophy; and resumption of the LOS Conference (the tenth session opened on March 10, 1981).

Conclusions

If the basic philosophy of the leaders of the United States government is to seek an acceptable international treaty (and it ought to be for numerous reasons, previously demonstrated), the main issue becomes how to reach acceptable compromises in remaining problem areas.

As previously shown, the problem areas with the current Draft Convention seem to be, basically: the transfer of technology and protection of investment. In both issues, timing is the key. Because of long lead times and tremendous start-up costs, even short delays in 1981 will result in setbacks of years for actual commercial production to begin. Mining consortiums naturally want to protect their "trade secrets," and banks naturally want guarantees before loaning large sums of money. It is not unreasonable, therefore, to expect mining interests to press for hard concessions or guarantees.

If these two main issues (technology transfer and investment protection) cannot be settled at the negotiating sessions (and, given past successes, it is likely that they can be settled), and, assuming the U.S. wishes to have an international treaty (over the alternative), the U.S. government could take a series of steps to unilaterally solve the problems for miners.

In the area of technology transfer, it has been pointed out that reasonable progress has already been made within the past year. The

only issue left for mining interests to fight for is the removal of demands placed on developed countries for technology, or possibly, at the least, the deletion of the "Brazil Clause." Since it is not expected that the developing countries will give in on this issue, the basic question boils down to this: does the U.S. agree that the resources of the deep seabed are the "common heritage of mankind?" The obvious implication is that there is a moral obligation on the part of the developed countries to assist the developing nations in taking advantage of the great wealth of the seabed. If the U.S. is committed to this ideal and the provisions of the Draft Convention are deemed unacceptable, the U.S. government could (even later) take the position that the technology is privately owned and that it has no authority to sell something it does not own. Or, better yet, the treaty could be ratified with reservations in this area. That is, the U.S. could unilaterally accept all parts of the treaty with exception to forced technology transfer.[20] There are precedents for reservations in

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[20] Conditions would have to be just right for this provision to be invoked. Some points should be made clear. First of all, the Enterprise must make reasonable efforts to purchase the technology -- and by revision, only processing technology is involved -- it needs on the open market. (And there may well be sellers glad to spread their research and development costs.) Secondly, the Enterprise can only acquire technology under a joint arrangement, never by any other means; and "fair and reasonable commercial terms and conditions" must be met. Thirdly, if, under the Brazil Clause, a developing country is substituted for the Enterprise, it should be kept in mind that, given the cost of buying the technology and meeting other capital requirements of a mining project, it is scarcely conceivable that any developing country or group of countries will any time soon undertake seabed mining on their own. A more logical option would be to enter into some form of association or into a multinational company, both of which would have technology.

international treaties, beginning at least as early as the Geneva Conventions of 1949, when Soviet bloc states made reservations to Article 85 of the Prisoners of War Convention.[21] Reservations do pose legal technicalities, which would be an acceptable price to pay, and a reservation would let the international community know the strong feelings of the U.S. government on this particular issue.

As to the issue of protection of investment, two points need to be made clear. First of all, the current Draft Convention assures access to the opportunity to engage in deep seabed mining, approval is fair, clear, and well-nigh automatic.[22] All the related, subordinate issues (like production ceiling) seem to have fallen into place and to be reasonable by the terms of the current Draft Convention. However, there is -- as of this writing, prior to the conclusion of the tenth session -- no "grandfather clause" for the protection of miners engaging in initial exploration/exploitation prior to the ratification of the treaty. This could cause serious concerns for the mining interests, as, again, long lead times and inflationary costs almost force miners to begin operations as soon as possible. Here again, though, it is possible,

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21 Gerhard von Glahn, Law Among Nations, (New York: MacMillan Publishing Co., 1976), pp. 430-433 and 715-718.

22 The criteria as spelled out in Annex III of the treaty (Draft Convention) satisfy these criteria. See also, George H. Aldrich, "Law of the Sea," United States Department of State Bureau of Public Affairs. (December 1980):3. (Mr. Aldrich was the Acting Special Representative of the President for the Law of the Sea Conference after Ambassador Richardson's resignation in the fall of 1980.)

that such a clause could be negotiated into the treaty during the tenth session. Additionally, if the United States were totally committed to adopting an international treaty, unilateral action could be taken. For example, there is the possibility of a combination of risk insurance under domestic legislation and perhaps some form of preparatory investment protection under the treaty which might include the right to continue mining until the Authority can act.[23] According to Ambassador Richardson, the chances of persuading the executive branch and the Congress to agree to risk insurance, which could be patterned after the Overseas Private Investment Corporation, are enhanced due to a number of factors.

The point here almost seems to be that "where there is a will, there is a way." If the United States is committed to pursuit of an international treaty on seabed mining -- as well as all the other Law of the Sea issues, certain sacrifices will have to be made to satisfy the interests of other countries. These sacrifices could then be absorbed by the federal government, if no true compromise could be reached. An interim "risk insurance" would not be too burdensome on the government if its budgetary prioritization were high enough to reflect the overall net affects of an international Law of the Sea. The end result would be beneficial to United States national security, both now and in the future, and would provide guarantees and incentives for capitalistic investments in ocean mining which could provide a wealth of resources and profits for the United States and the entire international community.

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[23] Richardson, "Seabed Mining," p. 64.

CHAPTER FOUR

THE UNITED STATES AND REGIONAL LAW OF THE SEA

The United States and Regional Law of the Sea

Second Policy Alternative: The United States pursues regional Law of the Sea agreements.

Background

The concept of regional law of the sea should be viewed not merely as a sign of failure -- failure of nations and diplomats to achieve a global maritime order, but, in another sense, regional law of the sea has been a real sign of optimism -- optimism based on hopes that regional maritime orders can avoid some of the worst effects of the legal chaos feared if unilateral national claims make up a new pattern of ocean law. Regional law of the sea may not be the best ultimate choice of national policy for the United States, but it does have advantages worthy of mention. The U.S. could virtually select its partners, thereby assuring maximum agreement and cooperation. Also, regional law of the sea does serve to meet some specific needs.

Historically, regional law of the sea has developed in three basic "roles" as a means of dealing with three sorts of needs. First, regional law may be a means of promoting shared legal claims of regional states. Secondly, regional law may be a means of providing for the efficient use of regional waters. Additionally, regional law of the sea may be a means of sharing ocean resources with regional landlocked or shelf-locked states. Each of these roles will be examined in turn.

Regional Law of the Sea
As a Means of Promoting Shared Legal Claims

In an uncomplicated way, regional law of the sea may be no more at times than the coordination and promotion of the legal claims of nations within a region. For reasons of similar historical background, shared geographical situations, or mutual political, economic, or security concerns, states within a region may be in much more of an accord with each other than they are with nations outside the area. By banding together in making international legal claims, regional states not only iron out differences among themselves for the sake of harmony, but for the purpose of facing the world together, acting more effectively as a unit.

The region which perhaps more traditionally has displayed this first type of regional law of the sea is Latin America and its sub-regions. The most famous regional Latin American law of the sea claim is the 200-mile territorial sea. The first regional origin of the extended territorial waters claim is the Declaration of Panama of 1939, when, at the urging of the United States, the American states created a "defense zone of 300 miles around the hemisphere with the 'inherent right' to keep the zone free of any hostile act by non-American belligerent nations."[1] This concept of a maritime defense zone was

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[1] Richard C. Bath, "Latin American Claims on Living Resources of the Sea," Inter-American Economic Affairs (Spring 1974):61-62.

again amended in 1947 in the Rio Treaty. After the unilateral American claim in 1945 to jurisdiction over the continental shelf, the Latin American states followed suit with unilateral claims of their own to the shelf, and, in 1947 by Chile and Peru, to full sovereignty over 200 miles. The individual Latin American states argued that the Declaration of Panama demonstrated a hemispheric consensus favoring extended maritime jurisdiction.[2] Individual claims to 200-mile seas were bolstered in 1952 by a sub-regional claim by Chile, Ecuador, and Peru -- the Santiago Declaration:

> (I) Owing to the geological and biological factors affecting the existence, conservation and development of the marine fauna and flora of the waters adjacent to the coasts of the declarant countries, the former extent of the territorial sea and contiguous zone is insufficient to permit of the conservation, development and use of those resources to which the coastal countries are entitled.
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> (II) The Governments of Chile, Ecuador, and Peru therefore proclaim as a principle of their international marine policy that each of them possesses a sole sovereignty and jurisdiction over the area of the sea adjacent to the coast of its own country and extending not less than 200 nautical miles from the said coast..."[3]

As the Declaration of Panama was a regional maritime claim against the then participants in the second world war, so the Santiago Declaration was a sub-regional maritime claim against developed distant-water fishing states, especially the United States. By standing together,

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[2] Ibid., pp. 59-85.

[3] United Nations, General Assembly, 19th Session, 12 August 1968, Agreement between Chile, Ecuador and Peru, signed at the First Conference on the Exploitation and Conservation of the Maritime Resources of the South Pacific, Santiago, 18 August 1952 (A/AC 135/10/Rev 1), p. 11.

Chile, Ecuador, and Peru hoped to more effectively promote their respective 200-mile claims against the United States. The decision of these three states to stand together was made more explicit in the Lima Declaration of 1954, which provided for joint cooperation and legal defense.

> 1. Chile, Ecuador, and Peru shall consult with one another for the purpose of upholding, in law, the principles of their sovereignty over the maritime zone to a distance of not less than 200 nautical miles...
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> 2. If any complaints or protests should be addressed to any of the Parties or if proceedings should be instituted against a Party in a court of law or in an arbitrational tribunal, whether possessing general or specific jurisdiction, the contracting countries undertake to consult with one another concerning the case to be presented for the defense and furthermore bind themselves to cooperate fully with one another in the joint defense.
>
> 3. In the event of a violation of the said maritime zone by force, the state affected shall report the event immediately to the other Contracting Parties for the purpose of determining what action should be taken to safeguard the sovereignty which has been taken...[4]

Now more than 25 years old, this sub-regional claim by states, the coasts of which make up more than 90 percent of the Pacific shore of South America, is an excellent demonstration of the creation of a claim to regional law of the sea for the sake of promoting regional preferences against other states. Although the United States did not accept the claim to 200-mile territorial seas, other American states (Argentina, Brazil, Uruguay, Panama, El Salvador, and Nicaragua) joined with Chile,

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[4] United Nations, General Assembly, 19th Session, 12 August 1968, Agreement Supplementary to the Declaration of Sovereignty over the Maritime Zone of 200 Miles, signed at the Second Conference on the Exploitation and Conservation of the Maritime Resources of the South Pacific, Lima, 4 December 1954 (A/AC 135/10/Rev 1), pp. 12-13.

Ecuador, and Peru in the Montevideo Declaration of 1970, which endorsed the 200-mile jurisdictions and declared their "right to establish the limits of their maritime sovereignty and jurisdiction in accordance with their geographical and geological characteristics and with the factors governing the existence of marine resources and the need for their rational utilization."[5]

Thus, the sub-regional claim of the Pacific South American countries broadened into a claim of many states within the Latin American region. The declarations of Santiago, Lima, and Montevideo are attempts if not to extinguish the antagonism of the United States, at least to disarm the opponent by making it clear that actions taken against one claimant offends all claimants.

Regional legal cooperation to promote shared preferences has been a frequent occurrence in the course of the United Nations Law of the Sea debate. Not surprisingly, the Latin Americans have maintained their 200-mile claim not only against the U.S., but in the international context as well. And another region has joined the Latin Americans in this first category.

Since 1972, the Africans have made a regional claim for an exclusive economic zone. In that year, the African States Regional Seminar on the Law of the Sea at Yaounde concluded:

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[5] United Nations, General Assembly, 24th Session, 30 April 1971, Montevideo Declaration on the Law of the Sea, 8 May 1980 (A/AC 138/34), pp. 2-4.

> 1. The African states have the right to determine the limits of their jurisdictions over the seas adjacent to their coasts in accordance with reasonable criteria which particularly take into account their own geographical, geological, biological, and national security factors.
>
> 2. The Territorial Sea should not extend beyond a limit of 12 nautical miles.
>
> 3. The African states have equally the right to establish beyond the Territorial Sea an Economic Zone over which they will have an exclusive jurisdiction for the purpose of control regulation and national exploitation of the living resources of the sea and their reservation for the primary benefit of their peoples and their respective economies, and for the purpose of the prevention and control of pollution.
>
> The establishment of such a zone shall be without prejudice to the following freedoms: freedom of navigation, freedom of overflight, freedom to lay submarine cables and pipelines...
>
> The Economic Zone embodies all economic resources comprising both living and non-living resources such as oil, gas, and other mineral resources.[6]

The Yaounde Conclusions were seconded by the Council of Ministers, the highest body, of the Organization of African Unity in its "Declaration on the Issues of the Law of the Sea" at Addis Ababa in 1973. The Addis Ababa Declaration also called for exclusive economic zones and added that the proper width for such a zone was 200 miles.[7]

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[6] United Nations, General Assembly, 27th Session, 1972, African States Regional Seminar on the Law of the Sea, Yaounde, Conclusions of the Regional Seminar on the Law of the Sea, 20-30 June 1972, (A/8721, Supplement No. 21), pp. 73-76.

[7] United Nations, Bulletin of Peace Proposals, 1974, "Addis Ababa Declaration on the Issues of the Law of the Sea, 24 May 1973," (A/AC 138/89), p. 31.

The African position on a 200-mile exclusive economic zone not only stands as a good expression of regional law of the sea as a means of promoting shared regional preferences but is a realistic compromise between the 200-mile territorial sea claims of the Latin Americans and the narrow jurisdictional preferences of the developed countries. It is likely that the pronouncements at Yaounde and Addis Ababa were meant to serve these two purposes, both to establish African regional law and to compromise the international law of the sea debate. As such, the exclusive economic zone might be the first law of the sea principle originally adopted on an African basis which becomes general international law. Much of the traditional law of the sea can be viewed as the broad adoption of European regional principles and many nineteenth century modifications such as the laws of neutrality might be seen as American regional preferences accepted on a global basis.

Some regions and sub-regions have been less successful than Latin America and Africa in promoting shared legal claims. In Asia, for example, where national maritime policies "vary very considerably," there has been very little regional cooperation in promoting joint claims in the law of the sea debate.[8] Questions such as archipelagos might find sub-regional support in South Asia and the issue of passage through straits has been treated for the Straits of Malacca by a joint declaration in 1971 by Indonesia and Malaysia which claimed that the

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[8] Law of the Sea Institute, Proceedings of Seventh Annual Conference (Kingston: University of Rhode Island Press, 1973), p.5.

strait was "no longer an international waterway."[9] But, as will be discussed in the second section, most Asian sub-regions share the discord of the Asian region as a whole.

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[9] Michael Leifer, "Continuity and Change in Indonesian Foreign Policy," Asian Affairs, (June 1973):179.

Regional Law of the Sea
As a Means of Providing for the Efficient Use of Regional Waters

Regional law of the sea can be so much more than an expression of national maritime claims coordinated and promoted regionally. If the states within a region choose, regional law of the sea can be a means of providing for the efficient use of regional waters. In this second category, regional law regulates regional maritime activities and, as such, is a form of supra-national law. The advantages of regional supra-national law of the sea are much the same as the much heralded advantages of international supra-national law of the sea. Waters regulated regionally as opposed to nationally can be better protected against overfishing and pollution. Especially where quite a number of nations share coasts of the same sea of ocean, regional law of the sea seems almost a natural way to provide for the efficient exploitation and protection of regional waters.

Perhaps the best examples of regional cooperation are the worst examples of how regional maritime government should work, that is, the regional fishery organizations. Of some 23 regional fishing organizations, only eight really have any avowed management functions, only three attempt to divide the catch among their members, and none attempt to prevent non-members from fishing as they like.[10] Little ventured,

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[10] Robert L. Friedheim, "International Organizations and the Uses of the Ocean." In International Cooperation, pp. 242-251. Edited by Robert H. Jordan. New York, Oxford Press, 1978.

little gained. It is not surprising that the reputation of the fishery organizations is notorious.

The most successful example of regional law of the sea as a means of providing for the efficient use of regional waters is to be found in Western Europe. There the most significant advance has been made in the Common Fisheries Policy of the European Community.[11] According to the 1957 Treaty of Rome establishing the Common Market:

> The Common Market shall extend to agriculture and trade in agricultural products. Agricultural products shall mean the products of the soil, of stock-breeding and of fisheries...
>
> ...restrictions on the freedom of establishment of nationals of a Member State in the territory of another Member State shall be progressively abolished in the course of the transitional period....[12]

A common market in fisheries and freedom of establishment means, in theory, that the territorial waters of every Member State should be opened to the fishermen of every other Member State. In practice, it took the European Community a long time to make national fishing zones regional fishing waters. Less efficient French and Italian fishermen were understandably reluctant to welcome Dutch, German, and Belgian

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[11] Mark W. Janis, "The Development of European Regional Law of the Sea," Ocean Development and International Law Journal 4 (Fall 1973):275-289.

[12] European Economic Community, Treaty Establishing the European Economic Community and Connected Documents (London: Publishing Service of the European Communities, 1965), pp. 47 and 59.

fishing fleets, but in June 1970, the Council of the European Community, the rule-making body, made equal access Common Market policy.[13] And, in October 1970, Regulation 2141/70 creating the Common Fisheries Policy was issued, to come into effect in February 1971.[14] Not only can the Community take conservation measures as required, but it is able to restructure the fishing industry, as it did in 1972 when it encouraged, through incentives, Community fishermen to switch from cod fishing to tuna.[15]

There are, however, some important limitations to the regional maritime organization of Western Europe. Many Western European states with important fisheries are not included. When the "Six" negotiated entrance for Great Britain, Ireland, and Denmark, the Common Fisheries policy was one of the biggest stumbling blocks and the three new members gained 10-year transition periods. Norway rejected the Common Market by

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13 Janis, "Regional Law," pp. 279-281.

14 William G. Lay, John R. Churchill, and Myron L. Nordquist, eds., New Directions in the Law of the Sea: Documents: Volume I (Dobbs Ferry: Oceana, 1973), pp. 50-51.

15 European Economic Community, "EC Fish Priorities: Salt Cod Out; Tuna In," European Community, No. 153 (February 1972), p. 6.

a referendum in which opposition to the Common Fisheries Policy was paramount; the "No" vote in Norwegian fishing areas ran up to 93%.[16] Iceland and Spain are not members of the Community. Thus, the regional jurisdiction of the Community does not encompass the entire region.

The other significant limitation to the maritime control of the European Community is with regard to non-living resources. The Community did decide in 1970 that continental shelf activities did fall within the realm of EC regulations.[17] But there is no effective Community control over off-shore oil or gas exploitation.[18] And the Community only seeks to provide for freedom of movement and establishment, not to govern off-shore resources. Also, it is unlikely that any regional maritime policy will effectively control the shelf short of a Community accord concerning energy in general.

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16 Janis, "Regional Law," p. 281.

17 European Economic Community, Bulletin of the European Communities (London: Publishing Service of the European Communities, 1980), p. 48.

18 John McLin, "Resources and Authority in the North Atlantic: Part I: The Evolving Politics and Law of the Sea in Northern Europe," Fieldstaff Reports, 8 (December 1973):10-11.

The Community's record is somewhat brighter concerning pollution and environmental protection. By a 1973 Declaration, the EC has a "Programme of Action on the Environment," part of which includes control of marine pollution.[19] There seem to be fewer internal disputes about the need and nature of pollution control than there are about an issue such as energy use and exploitation.

Outside the Common Market, there have been other attempts to create European regional law of the sea, but these other accords are more similar to the coordinating mechanisms of the first category than they are like the governing mechanisms of this second category and the European Community. It is unlikely that any other European organization, for the foreseeable future, can hope to be as effectively supra-national as the European Community. Additionally, the record of regional activities outside of Europe does not show that there have been successful attempts to use regional law of the sea to provide for the efficient use of regional waters in other areas of the world. One factor is that no matter how great the benefits of regional control, unless regional actors can settle outstanding political differences, it is improbable that effective regional governments will be formed. It is illustrative that the only successful regional maritime regime, that is Western Europe, is the result not of recognition of the inherently good reasons

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[19] European Economic Community, "Declaration of the Council of the European Communities and of the Representatives of the Governments of the Member States Meeting in the Council of 22 November 1973 on the Programme of Action of the European Communities on the Environment," Official Journal, 16 (20 December 1973).

for a regional maritime policy but of a larger process of regional economic integration. It is doubtful that the Common Fisheries Policy could have been established without the prior establishment of the Common Market.

This is not to say that regional organizations could not be used to coordinate national maritime policies. However, more than regional consensus is required. To provide for the efficient use of regional waters, a regional authority would almost certainly be required. Thus, this is a difficult issue, and a country opting for some form of regional authority would face the same problems as are faced in the current international negotiations (albeit, on a somewhat smaller scale).

Regional Law of the Sea As a Means of Sharing Regional Ocean Resources with Regional Landlocked or Shelf-locked States

A third role which regional law of the sea may play is possibly the most important in the context of this paper: helping landlocked and shelf-locked states share in the wealth of the oceans. This role has received increased attention particularly as a result of the proceedings of the Caracas Conference, and today it is the single most volative issue. The term "wealth" of the oceans has come to mean more than living resources. Wealth now includes the numerous mineral resources, be they manganese, tin, or diamonds.

There are approximately 30 major states which are landlocked. Many others, like Zaire and Iraq, have coastlines much shorter than those of most other countries. These are the countries that will lose the most by the 200-mile territorial seas or exclusive economic zones. These countries also have much to gain from sharing regional ocean resources.

The area in which developments for regional law of the sea as a means for sharing resources with landlocked or shelf-locked states is most pronounced in Africa. This should be no surprise since most of the world's landlocked states are African. Altogether, almost one-third of the African countries have no sea coast. If the resources of the ocean were divided by length of coastline they would get no share whatsoever.

The delcarations of the African region, more than those for any other area, present the case for the landlocked states:

> The exploitation of the living resources within the economic zone should be open to all African states both landlocked and near landlocked, provided that the enterprises of states desiring to exploit these resources are effectively controlled by African capital and personnel.
>
> To be effective, the rights of landlocked states shall be complemented by the right of transit.
>
> These rights shall be embodied in multilateral or regional or bilateral agreements.[20]

The African countries recognize, on order that the resources of the region may benefit all peoples therein, that the landlocked and other disadvantaged countries are entitled to share in the exploitation of living resources of neighboring economic zones on equal basis as nationals of coastal states and on bases of African solidarity and under such regional or bilateral agreements as may be worked out.[21]

Despite the good record of African pronouncements, there are no regional laws for sharing ocean resources at the present time. The problems faced by landlocked and shelf-locked states are many. Even the relatively generous African declarations provide only for "living" resources; the coastal states are not at all eager to distribute the profits from off-shore oil, gas, and minerals. Whether a disadvantaged

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20 United Nations, Yaounde, pp. 210-211.

21 United Nations, Addis Ababa, p. 31.

country seeks living or non-living resources, it will be difficult to determine which coastal states should give up part of its share to which landlocked or shelf-locked state. This determination could be better made by a regional authority, but as the second section demonstrated, the prospects for such an authority in Africa or most places are poor. If landlocked states are to use only their own capital and personnel, how will they find either? The coastal African states rely greatly on foreign capital and training themselves. Altogether, it seems that rights of use and transit will be of less utility to the disadvantaged African states than a simple, direct share of the profits from ocean resources. But such an outright payment is not likely to be made by the coastal states.

If there are difficulties for African landlocked states, problems are only greater for disadvantaged states elsewhere. In Latin America, attempts to have the Santo Domingo Conference even address the plight of landlocked states were frustrated. There are only two landlocked Latin American states, Bolivia and Paraguay, and they are relatively less important to their region than the numerous landlocked states of Africa. The five landlocked European states (Switzerland, Austria, Luxembourg, Czechoslovakia, and Hungary) and five landlocked Asian states (Afghanistan, Nepal, Bhutan, Laos, and Mongolia) face the same problems of being severely regionally outnumbered.

Although it is possible that disadvantaged states will reach bilateral or multilateral agreements to share ocean wealth, it is likely that these will be gained through the normal process of diplomatic bargaining that they will have to trade political support or

some other commodity to win a slice of profit from neighboring coastal states. On a regional basis, only Africa seems to have sufficient numbers of landlocked and allied states to secure a regional accord assuring disadvantaged states some portion of the gain from the extended exclusive economic zones. In Africa on a continent-wide basis there might be some realistic hope that some provision is made for non-coastal countires, but even so it would probably still be up to bilateral negotiations to determine exactly how great a provision will be made in each case.

Again, as was true in the second section, the issues here are complex, and not easily compromised.

Conclusion

Were the United States to opt for regional (as opposed to international) treaties and cooperation, the agreements reached would probably fit into one of the three categories discussed. The development of regional law of the sea has had three discernable objects: the promotion of shared legal claims, the provision for the efficient use of regional waters, and the sharing of resources with disadvantaged regional countries. These objects would also be, either individually or collectively, the objects of U.S. foreign policy.

The record for regional law of the seas has been and likely will remain very spotty. One of the advantages, however, of a regional approach to maritime problems is that different regions would be able to handle their law of the sea matters in different ways. All of the regions of the world have their own particular problems and preferences, and, theoretically, with fewer participants, negotiations would be simpler.

There is a place for and beneficial function of regional law of the sea. And the United States is a participant in regional LOS treaties. One real advantage in a regional approach is that problem areas can be dealt with on an individual basis. The international LOS treaty currently under negotiation, provides the "package deal" approach. There must be agreement on all aspects and issues. Putting

off discussion or debate on a single issue means delaying the entire negotiating process. In a regional approach, issues could be dealt with as they appear, and disagreement over mineral issues wouldn't necessarily interfere with a fishing agreement.

Regional law of the sea could also supplement international law of the sea if and when the latter were ratified. However far international law goes in better ordering the oceans, it will always be possible for regional law, in most regions, to go further. Not that regional legal solutions are likely to agree. They are not. As the laws of states vary, so regional laws would vary with regional preferences, and so would the nature of regional law differ.

The United States could engage in a regional law of the sea which is supra-national and governing. Or, regional law of the sea could simply coordinate national maritime policies. Certainly the eventual legal nature of the oceans would be confused as a result, but it would probably be a lot less confused than if no regional law existed to modify national jurisdiction at all.

If the United States cannot accept the terms of international negotiators, yet desires the maximum possible policy acceptance and cooperation, then regional law of the sea offers many possibilities and advantages. Regional agreements may be second in desirability to an all-encompassing international treaty, but should be considerably easier to negotiate.

CHAPTER FIVE

THE UNITED STATES AND DEEP-SEA MINING

The United States and Deep-Sea Mining

Third Policy Alternative: The United States ratifies no international agreements and acts alone in mining the deep seabed.

Background

It has been stated from the outset that there is another option for the United States, should government leaders determine not to pursue an international treaty which they consider to be outside the national interest, and should other states refuse to compromise their position -- which is a distinct possibility. Many countries of the western hemisphere which oppose U.S. proposals at the international Law of the Sea Conferences also have reason to oppose U.S. designs within that region. It is, therefore, conceivable that regional agreements might not be forthcoming, and that the United States would choose to act alone in pursuit of purely nationalistic goals regarding mining the deep seabed.[1]

At least two issues which could be identified should the U.S. select this course of action are, primarily, moral and legal. The moral issues are not paramount to this study, but revolve around whether or not the United States, which generally leads the rest of the world in deep-sea mining technology, "owes" something to the rest of the world, particularly third world countries. This could be answered at least partially by demonstrating that the world community would benefit more

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[1] Another consideration which must be repeated here is that the LOS negotiations represent a "package deal." If there is no agreement on any single issue, there is no agreement at all. Therefore, the United States, or any non-signatory would be forced to act individually regarding all law of the sea issues. However, there is no reason why a non-signatory could not abide by those principles in which there is agreement.

in the not-too-distant future by having access to greater quantities of minerals than it would by forcing a "more equitable system" which might cause initial mineral production to be delayed for several years. Third world leaders must be in a bonafide dilemma here. Surely they must realize that unless investments are made and operations begin soon, actual commercial production will be delayed. On the other hand, third world leaders must believe that unless they get real concessions in the early negotiating stages, before the dividing up of the oceans begins, there may not be any bargaining power after production has begun.

The legal issues are another matter altogether, and can become more or less complicated than the moral issues. At least some of the legal issues which become critical should the United States determine not to enter into an international law of the sea treaty center on the status of a non-signatory in an otherwise international legal regime. In the event of such a situation, must U.S. mining industries sit idle? Would any actions be "legal" or acceptable to the world community? Need the U.S. under such conditions be at all concerned with world reactions or opinions? Would there be any interaction between the United States and treaty signatories? What about the numerous other issue areas of the treaty?

These are but a few of the legal questions that would need to be examined by U.S. policy makers before opting to act alone in mining the deep seabed. Although many of the questions could be answered in a positive manner, the potential for conflict nevertheless ultimately seems at least as conceivable as it would for nineteenth century gold miners on the lookout for "claim jumpers." The U.S. would have to be

prepared to deal with this type situation, and would have to be sure of its legal "footing" with every step taken.

It should be emphasized that, in regards to international law, some uncharted ground would undoubtedly be broken should the U.S. not ratify an international law of the sea agreement. There may not, therefore, be concrete answers for each question that might arise. There are, however, some principles and precedents which might apply. These principles can be classified by the following criteria: nature of international law, sources of international law, sanctions of international law, and the nature of international agreements (treaties).

The Nature of International Law

International law has been defined as the body of rules and principles of action which are binding upon civilized states in their relations with one another.[2] Yet there are controversies and questions inherent in the development of international law. The first question which comes to mind is this: Is international law really law? If there were a precondition for enforcement, then the term international "law" would probably not be proper. The best view is most likely that international law should be regarded as "true but imperfect law."[3] The key to making international law workable is obviously not enforcement, but, rather, the willingness of states to accept the rules set up by the "community" of nations. The justification for this statement is that any system of law -- domestic or international -- must derive its validity from consensus: "no law will prevail over the mores, customs, and beliefs of a people or a group of peoples."[4]

There are two observations which may be made from the preceeding. The first observation -- that there is no true enforcement of international law, leads to the second -- that any state outside an

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2 Brierly, Law of Nations, p. 1

3 von Glahn, Law Among Nations, p. 7.

4 Ibid., p. 8.

international agreement is not only not bound by the agreement, but is immune from whatever "enforcement" there might be.

The implications for the United States, should the decision be made to reject an international treaty, are fairly obvious: acting alone in mining the deep seabed may not please the rest of the world community, but there would be little recourse for the treaty signatories.

The Sources of International Law

One principle which is relatively basic to any examination of international law revolves around a discussion of the sources of international law. The purpose here is not to instruct, but to specify where treaties fit in to the overall scheme of general international law.

Article 38 of the Statute of the International Court of Justice directs that judicial body to apply four sources in the determination of rules of law: (1) international conventions (treaties); (2) international custom; (3) general principles of law recognized by civilized nations; and (4) judicial decisions and even teachings.[5]

The actions of the United States -- or any state acting outside international law -- could be judged by any or all of these principles. However, the current study is primarily concerned with principles and precedents borne of international treaties.

The first issue which should be discussed is that treaties are nowadays accepted as a major source of international law. However, only law-making treaties apply as a source of law. The United Nations Law of the Sea Convention obviously belongs in this category, and

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[5] von Glahn, Law Among Nations, p. 10.

whatever acquiescence which is expected applies. The particular aspect which must be studied is, again, what about non-adherence or non-participation? The answer is that states which specifically refuse to acquiesce in the new rule or which refuse to ratify the treaty or to adhere to it are not normally bound by the rule, principle, or interpretation in question.[6]

The implications, again, for the U.S. in mining the deep seabed as a non-signatory to an international law of the sea treaty, are parallel and concurrent with those form the first section: a law-making treaty does not apply to a non-signatory.

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[6] U.S. Department of State, Digest of International Law, 1963 by Marjorie Whiteman, (Washington, D.C.: Government Printing Office, 1963), 1:70-74.

Sanctions of International Law

As was previously observed, there is currently no effective institutional machinery for the application and enforcement of international law. Even including the International Court of Justice, there are no institutions for appeal of a decision, and there certainly is no effective authority for enforcement.

It is apparent from the foregoing that the United States could not be forced or coerced by legal actions into abiding by or even recognizing international law, particularly a U.N. Law of the Sea Treaty. Yet, if the U.S. chose to reject such a treaty, and specifically to pursue seabed mining outside that treaty, there would certainly be problems in the international arena, no matter how small. Given the strong feelings of third world nations, as well as those of the U.S., there would be a wealth of opportunity for frictions to surface in international relations.

What could the U.S. expect in the way of reactions, both from individual states and from the United Nations? Since there is no fear of "punishment," there may not be an occurrence leading to an actual confrontation. As Brierly pointed out, the ultimate reason for the binding force of any kind of law is that man -- or the state -- is compelled as a reasonable being to believe that order rather than chaos is the governing principle of his world.[7]

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[7] Brierly, Law of Nations, p. 56.

Here again is where moral issues enter into play. There is a basic underlying concept built in to every code of morality: that the good of the whole may require sacrifice of a bit of the good of each part. Other than pure moral issues, great pressure could be brought to bear upon the U.S. to either sign the treaty or tacitly comply with its provisions. Among these pressures could be world public opinion, social disapproval, or even the United States' reputation for principled behavior.

Should a confrontation occur, as might ensue should U.S. mining corporations choose to work an area within or too close to that of a signatory state or of the Enterprise itself, the international legal regime would have some recourse. Among the list of possible actions or reactions are the following: diplomatic protests; calls for mediation; reference to a commission of inquiry; reference to an arbitration tribunal; sanctions (which may include boycotts, embargoes, reprisals, or even pacific blockades); a call for U.N. Security Council action; or even possibly the use of force.[8]

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[8] Two points should be added here. Primarily, these measures, no matter how minor in appearance, could be viewed as relatively extreme. That is, reactions of this sort should not be expected unless a specific situation degenerated to a specific degree. Secondly, the list of actions above, are those normally used within the system of law, and may not be considered particularly applicable against a non-signatory to the overriding treaty.

The Nature of International Agreements

The treaty-making process generally involves four major stages, some of which may occur concurrently:

1. Negotiation (including the drawing up and authentication of the text).

2. Provisional acceptance of the text, normally through the affixing of the signatures of the negotiators.

3. Final acceptance of the treaty, normally through ratification.

4. The entry into force of the treaty.[9]

The possibility for a state to reject a proposed treaty could come at any point within the first three stages. Ratification, though generally held to be an executive act, requires (in the United States) approval of the U.S. Senate. This is a varied and time-consuming process, and it is possible for rejection to occur at any of numerous intermediate stages. It is quite possible for a prospective party to an agreement to refuse consent to ratification, in accordance with its constitutional requirements. Of equal importance here, is the fact that,

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[9] For more detailed information connected with the formation of a treaty, see U.S. Department of State, Digest of International Law, 1943, by Green H. Hackworth (Washingtony D.C.: Government Printing Office, 1943), 5:25-101.

generally, a state is not bound by a treaty until ratification has taken place, and even then there is usually a time delay for entry into force. And again, no treaty can impose binding obligations on any state which is not a party to the agreement in question.

There is room for much conjecture from the points just outlined. However, of paramount interest to the U.S. in regards to the proposed U.N. Law of the Sea Convention, is the fact that outright rejection of the treaty during the negotiation phase is not to be considered the last opportunity for rejection. There may be occasion when complete renegotiations are necessary. More than likely, however, is the possibility that through political maneuvering -- such as threats or withdrawal from negotiations, adjustments in the position of the opposing states may be effected.

Conclusions

This chapter has attempted to examine several aspects of the situation which might obtain should the United States reject -- by one means or another -- the proposed United Nations Law of the Sea Convention. It has been shown that there are several factors of which policy makers must be ultimately and keenly aware. It has also been shown that, through traditional and customary principles of international law, the U.S. would be well within its rights to take any number of actions which would ultimately result in rejection of the treaty. Consequently, this may not be the way to make friends in the international community, however, there would be little recourse available to that community unless an actual confrontation ultimately developed.

There are several related issues which should be clarified or restated at this point. First of all, it should be kept in mind that there are numerous other issue areas under the "umbrella" of the Law of the Sea Treaty -- the "package deal" concept. All of these issues have been negotiated into the numerous compromises that form the 320 articles of the current Draft Convention. Most, if not all, of these other issue areas represent hard U.S. bargaining and it would almost seem sinful to scrap the entire process because of an impasse on a single issue area -- albeit, a most important one. Nevertheless, should the United States reject the treaty, there still would remain numerous issues in which there is complete agreement. Acting in good

conscience the U.S. should, under such circumstances, force itself to comply with those issues.

Another related issue is that, as there are many examples of regional agreements, there are many examples of states acting in rejection of international treaties. It is not the purpose here to elaborate, rather to conclude that these examples represent precedent in international behavior.

A final point which could be made here is that there could be other "international" treaties or agreements reached (between the U.S. and other technologically advanced states, for example). This type of agreement, by its very nature, would cut across regional lines, and would make the U.S. an international actor regarding deep-sea mining, yet the United Nations need not be involved. This not only alludes to a possible fourth category or alternative for U.S. action, but also demonstrates that should the U.S. decide to reject the U.N. treaty, there are other options available. This option would probably receive strong support from the mining industry, and, indeed, the legal ground work has already been laid. In June 1980, the Congress of the United States (Deep Seabed Hard Mineral Resources Act - PL 96-283) and the Federal Republic of Germany have each enacted legislation that would authorize reciprocal licensing, and thereby agree to respect the licenses granted by other nations. The purpose of the legislation was not to be an alternative to the LOS convention, but to foster

the continued development of seabed mining capability.[10] It is likely that several other advanced industrial countries will, in due course, follow suit.

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[10] Richardson, "Seabed Mining," p. 61. Also PL 96-283 allows U.S. mining companies to begin commercial mining after January 1, 1988. See also U.S. Department of Interior, "Mineral Commodity Summaries, 1981," p. 37.

Purpose and Objective of the Study: Restatement

The purpose of this study is to examine the United States interest in one particular aspect of the ongoing United Nations Law of the Sea Conference -- mining of the deep seabed. The main objective is to attempt to determine a foreign policy regarding deep-sea mining which will be consistent with United States national objectives and national security.

CHAPTER SIX

CONCLUSIONS

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Conclusions with Respect to Support or Rejection of the Policy Alternatives

Unlike a scientific study, the present study cannot offer exacting results based on precise empirical testing or overwhelming numerical data. Each of the three alternatives, selected because it represented potential, general options, was examined as to its historical basis, legality based on existing law among nations (national, regional, or international), and, ultimately, to determine the most appropriate United States foreign policy approach.

Based on the criteria used to examine each alternative, the first overall conclusion regarding support or rejection is that each can be supported as a realistic, workable option in terms of historical and legal precedent. The next logical step should be to determine the effects of each option should it be chosen as U.S. policy -- effects on each of the parties which have a direct interest, particularly: the U.S. mining industry and the United States populace as consumers of mineral resources. Secondarily, there should be concern given to the effects of each policy option on the U.S. government, foreign governments, the United Nations, international mining industries, and international relations in general. (Each of these secondary interests will be dealt with only when there is significant gain or loss worthy of note.)

Alternative One: The United States Ratifies a U.N.-Sponsored, International Law of the Sea Treaty

Assuming that each party to such a treaty would signify at least minimal acceptance of its articles, through the affixing of signatures, this would be the most logical first choice as a policy, if for no other reason than that more diverse interests would be satisfied than through any other means. The U.S. mining interests stand to gain the least of all parties concerned in the sense that a treaty would represent numerous compromises, and their position is very polar. However, the inability to realize their basic demands -- primarily for more sovereignty over their operations -- is offset by the equally advantageous benefit from an international treaty -- a stable atmosphere for financial organizations to risk millions, probably in excess of $1 billion per venture.

The consumer (both national and international) stands to gain because, in a healthy economic environment where operations get underway and nodules are mined and produced as expeditiously as possible, access will be afforded to deep-sea minerals when needed most. All other interests should also be affected positively, or at least it could be said that conditions should exist under which a reasonably positive atmosphere could prevail.[1]

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[1] This is admittedly a bit simplistic, however, more time will be devoted to overall implications at the end of this chapter.

Alternative Two: The United States Pursues Regional Law of the Sea Agreements

It has been demonstrated that regional law of the sea is to be viewed both positively and negatively. Historically and legally, there is much background and precedent in favor of regional law as a policy approach. In determining the net effects of a purely regional policy, it can be said that the benefits to all parties concerned are second only to an international law of the sea.

U.S. mining consortiums may or may not reap satisfactory benefits in that it would be very difficult to predict the overall attitude of financial institutions towards granting such sizable loans as would be required. Much research and analysis have been done to determine overall costs and periods of time involved prior to initial production. However, much more research would have to be done from the economic point of view to assess the risks involved should a regional agreement be pursued. Much would depend upon whether or not an international treaty could be obtained should the U.S. decide to reject this forum. As long as there were a perceived "threat" to regional agreements by a developing international treaty, it would be unlikely that a financial institution would risk a billion dollars on what would always appear as an interim arrangement.

If an international treaty were to be pursued at some future date, and the interim regional law agreement(s) were seen as supplementary, all parties would stand to gain from regional as from international agreements. International relations, however, might tend to suffer occasionally in the interim.

Alternative Three: The United States Ratifies No Agreements and Acts Alone in Mining the Deep Seabed

Should the U.S. reject the current international treaty, this policy option would probably become the first choice. More is at stake here than a single Law of the Sea Treaty -- with all its articles and issue areas. In order to elect not to pursue international negotiations, the United States -- or any country taking such a step -- would be doing more than merely rejecting a single position of even a single treaty. Such a move would have far-reaching implications regarding the U.S. vis-a-vis the international community and vis-a-vis the United Nations as an institution. There would be serious implications regarding U.S. intentions concerning negotiations and international cooperation in general. Such a move should not be made quickly or without much serious debate and consideration.

In light of the foregoing, pursuit of regional agreements appears more as a middle-of-the-road approach, and it is unlikely that any country taking that first giant step -- rejection of the international treaty (not to mention rejection of the international community itself, as the current Draft Convention represents years of hard bargaining and serious compromising by all parties) -- would be inclined to take a small step backward, at least not any time soon after that initial move. The United States would not benefit (nor

would the mining interests) from "straddling the fence" at this point.

Such a step -- rejection of the international treaty -- could be taken only under one of two conditions:

1. The U.S. truly intends to stand alone in at least law of the sea matters -- particularly deep-sea mining;

2. The U.S. wishes to demonstrate national resolve (national will, national intent).[2]

The reasons for this assessment are simple: the gains from such a decision are all in the favor of the U.S. (particularly U.S. mining interests). All other interests are then placed as secondary: foreign governments, the United Nations, foreign mining industries, and international relations in general.

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[2] A demonstration of national resolve could possibly be interpreted as the ultimate "bluff" regarding the Law of the Sea Treaty: either the LOS Conference gives in to the final demands or else...

Conclusions with Respect to the Objective of the Study

It has been demonstrated that each of the three alternatives could be supported based on the general criteria used. Any of the three options, or a combination, could be selected as national policy regarding the law of the sea in general or deep-sea mining in particular.

It now remains only to weigh the alternatives against the ultimate criterion: which policy would be the most suitable for the United States in regards to national objectives and national security? This is the criterion that must ultimately be applied by the President and Cabinet-level advisors. Hopefully, the background has been supplied and the reader can now proceed through the decision-making process.

Because no country is an island, all nations must interact with each other. The degree of interaction and type of behavior depend upon many factors, but one which always seems to enter in is the overall desires or objectives of the state in question. The United States has a recent history of adopting a line of policies which take into consideration the well-being of other nations and the pursuance of peace and well-being throughout the region or world. Because of the major-power status of the U.S., leaders must consider not only what policy to select, but also how those decisions and actions are perceived throughout the world. Consequently, a demonstration of

national resolve, as reflected in a relatively minor act (like the attempted rescue of U.S. hostages from Iran in April of 1980), can often be as important to world perceptions as a major U.S. action (like a declaration of war against Iran might have been).

In the current issue, the U.S. wishes to follow traditional paths, such as fostering peace, and cooperating with the United Nations and the international community. At the same time, certain nationalistic issues must be resolved satisfactorily: a possible impending non-fuel mineral shortage; the fate of U.S. mining corporations looking to the oceans to solve their entrepeneural needs; and the potential for solving both problems by opening up mining of the deep seabed in a politically and economically sound environment. As was pointed out earlier, the U.S. is in a sense an arbitrator between two polar views: views of third world countries and views of domestic mining corporations. Most critical of all is that the world community is on the verge of accepting the Draft Convention, and the decision of the United States regarding this current text may very well set the stage for future negotiations on other issues under the auspices of the United Nations. The position of the U.S. mining interests may be all that stands in the way of ratification of the current Draft Convention -- a monumental effort, representing seven years of negotiation and compromise.

From the earlier discussion concerning the position of the mining interests (Chapter 3), it became apparent that most of the hard-line, end desires of the mining community have been met by the present Draft Convention. From these factors it should follow that

the United States can achieve at least a minimally acceptable treaty -- one which has already been negotiated. And this should be the minimal goal of the administration: to achieve at least a minimally acceptable international treaty.

There are several considerations to be made along with this key judgment. First of all, it must be remembered that the issue of deep-sea mining is but one aspect of a multi-faceted Law of the Sea Conference. There are, in other words, other issues which simultaneously drive the U.N. machinery toward the ultimate goal: extension of a generally agreeable system of law to more than two-thirds of the earth's surface. Another consideration has to be that the current Draft Convention is the best potential treaty yet to have been produced. Most, if not all the delegates have praised it. Former Ambassador Elliot L. Richardson called it "...a treaty which, in my judgment, the deep seabed mining industry and American industry in general should wish to see ratified."[3]

A third consideration would be that the action taken by the United States acting alone -- third alternative -- should be viewed by policy makers as a last resort only. If the U.S. wishes to live peacefully among its international neighbors, there must be as much "give" as "take" in the overall process. And, as mentioned earlier, the perceived goals of this country can be as important as actions. It is, therefore, in the best interest of the nation to adopt a course

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[3] Richardson, "Seabed Mining," p. 60.

of action which promotes harmony. (In perspective, it must be remembered that the U.S. is but one country among many, and that more than one issue is at stake.)

Although regional or even transnational agreements, as an alternative to an international law of the sea treaty, are feasible, these would probably be the least practical as a selected foreign policy for the U.S. First of all, the U.S. would have to decide to reject an international treaty from the first, and would thus be taking an intermediate step of acting alone (third alternative). Then, should a regional or transnational agreement not be reached, the U.S. would be left in that same, last-resort position. Secondly, although there are other technologically advanced nations, any joint ventures or reciprocal agreements would likely be seen as fostering continued seabed mining, not as an alternative to international law.

The basic U.S. position is that deep seabed resources may be recovered lawfully by any state or its nationals as an exercise of traditional high seas freedom.[4] The U.S. views nodules as analogous to the living resources of the high seas -- the fish -- that are found beyond the 200-mile fisheries zone. Although this position rests on a solid foundation of international law, there are difficulties with it.[5] One is that it has been recently rejected by many governments. No nation can confer a right to mine nodules which is enforceable

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4 Richardson, "Seabed Mining," p. 61.

5 Ibid.

against the nationals of any other country.[6] There are, then, threats and legal challenges which would undoubtedly face the implementation of such a policy.

The only sure way of removing these threats and uncertainties is through the establishment of a universally recognized international legal regime for the exploitation of deep seabed minerals. This is exactly what the U.N. Law of the Sea Conference has undertaken to do.

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[6] Ibid.

Implications

There are in reality, two policy choices which must be made -- one general, one specific. First, policy-makers must decide that it is in the best interest of the country to pursue an international agreement. They must commit themselves to endure on the one hand the negotiating process, and, on the other, the growing pains that surely must follow an international agreement. This is not being offered as an easy accomplishment. The early years after ratification of the treaty would undoubtedly be marked by hard bargaining and difficult decisions. But all parties would be in agreement as to overall goals and dedication to accomplishing those goals.

The second, more specific choice which must be made would be whether or not to ratify the current Draft Convention "as is." As has been pointed out previously, there are some areas in which U.S. mining interests would stand to make gains from further negotiations, namely: a "grandfather clause" to protect miners in the interim period; and some form of preparatory investment protection.[7] These are the remaining issues which the mining industry would prefer to see in any treaty -- international, regional, or transnational. This would put to rest the final risks and uncertainties for the prospective miner. These uncertainties include the following:

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[7] Richardson, "Seabed Mining," p. 64. Also see Aldrich, "Law of the Sea," p. 3.

(1) The possibility that the miner might be denied the eventual right to mine the particular site which he has spent large sums to explore and for which his equipment is specifically adapted.

(2) The concern that the miner may not be allowed to continue mining without interruption if the treaty enters into force as to the United States after January 1, 1988, and after he has begun commercial production under U.S. domestic legislation.[8]

A very important point should be made here. Once the decision is made to pursue an international treaty -- and especially to pursue the current Draft Convention -- should an irreversible impasse be reached, these two problem areas could be resolved by domestic legislation. Again, if the administration were committed to endure a few hardships for the overall good of the international community, it would be an easily justifiable investment on the part of the federal government to provide some form of "risk insurance" for the mining industry.[9] The problem of mining the same site after the treaty becomes effective should best be left to the negotiators, and could be handled by a Preparatory Commission (to be established soon after the treaty is signed and to work full time for several years.)[10]

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8 Ibid, p. 64. Also see Aldrich, "Law of the Sea," p. 3.

9 Aldrich, "Law of the Sea," p. 3.

10 Ibid.

Former Ambassador Richardson expressed high confidence that the executive branch and the Congress could be persuaded to agree to risk insurance, which could be patterned on the Overseas Private Investment Corporation.[11] Also, the two problems elaborated upon above are just the kind for which the Preparatory Commission is intended. There are other countries which will be able to develop technology and engage in exploitation during the next few years. And there will undoubtedly develop many other equally complicated problem areas in that time.

Ambassador Richardson also suggested some ways in which the U.S. might enhance its position vis-a-vis the Conference in general, third world leaders in particular. Overall, his suggestions involve enabling the Enterprise to get an earlier start than would otherwise be possible.[12] One possibility, if some means of meeting the cost could be found, would be to use the interval to explore a mine site for the Enterprise. Another possibility would be to begin training the future employees of the Enterprise. His rationale: "whatever helps the capital 'E' side of the (parallel) system get off to a fast start could at the same time smooth the way for the small 'e' side."[13]

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[11] Richardson, "Seabed Mining," p. 64.

[12] Ibid.

[13] Ibid.

Whether or not a more conservative U.S. executive branch would be interested in having domestic legislation make up for shortcomings of the international treaty, or in providing financial backing for Mr. Richardson's suggestions, is unknown. Time will soon demonstrate the resolve of the Reagan Administration to pursue any of the suggested courses of action. However, the criticality of minerals issues and other high-interest national security issues yields criticality to the Law of the Sea Treaty. In addition to seabed mining, the future of U.S. foreign policy, of international relations and of international law may all rest on policy decisions on the Law of the Sea.

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APPENDIX A

UNITED NATIONS: THIRD CONFERENCE ON THE LAW OF THE SEA

Resumed ninth session
Geneva, 28 July-29 August 1980

DRAFT CONVENTION ON THE LAW OF THE SEA (INFORMAL TEXT)

CONTENTS

ANNEXES

APPENDIX B

THE AREA

Section 1. General

Article 133

Use of Terms

For the purposes of this Part:

(a) "Resources" means mineral resources in situ. When recovered from the Area, such resources shall be regarded as minerals.

(b) Resources shall include:

(i) Liquid or gaseous substances at or beneath the surface such as petroleum, gas, condensate, helium, and also sulphur and salts recovered in liquid form;

(ii) Solid substances occuring on the surface or at depths of less than three metres below the surface, including poly-metallic nodules;

(iii) Solid substances at depths of more than three metres below the surface;

(iv) Metal-bearing brine at or beneath the surface.

Article 134

Scope of this Part

1. This Part shall apply to the Area.

2. States Parties shall notify the Authority established pursuant to article 156 of the limits referred to in article 1, paragraph 1, determined by coordinates of latitude and longitude and shall indicate the same on appropriate large-scale charts officially recognized by that state.

3. The Authority shall register and publish such notification in accordance with rules adopted by it for the purpose.

4. Nothing in this article shall affect the validity of any agreement between States with respect to the establishment of limits between States with opposite or adjacent coasts.

5. Activities in the Area shall be governed by the provisions of this Part.

Article 135

Legal Status of the Superjacent Waters and Air Space

Neither the provisions of this Part nor any rights granted or exercised pursuant thereto shall affect the legal status of the waters superjacent to the Area or that of the air space above those waters.

Section 2. Principles Governing the Sea

Article 136

Common Heritage of Mankind

The Area and its resources are the common heritage of mankind.

Article 137

Legal Status of the Area and Its Resources

1. No State shall claim or exercise sovereign rights over any part of the Area or its resources, nor shall any State or natural or juridical person appropriate any part thereof. No such claim or exercise of sovereignty of sovereign rights, nor such appropriation shall be recognized.

2. All rights in the resources of the Area are vested in mankind as a whole, on whose behalf the Authority shall act. These resources are not subject to alienation. The minerals derived from the Area, however, may only be alienated in accordance with this Part and the rules and regulations adopted thereunder.

3. No State or natural or juridical person shall claim, acquire or exercise rights with respect to the minerals of the Area except in accordance with the provisions of this Part. Otherwise, no such claim, acquisition or exercise of such rights shall be recognized.

Article 138

General Conduct of States in Relation to the Area

The general conduct of States in relation to the Area shall be in accordance with the provisions of this Part, the principles embodied in the Charter of the United Nations and other rules of international law in the interests of maintaining peace and security and promoting international cooperation and mutual understanding.

Article 139

Responsibility to Ensure Compliance and Liability for Damage

1. States Parties shall have the responsibility to ensure that activities in the Area, whether undertaken by States Parties, or State enterprises, or natural or juridical persons which possess the nationality of States Parties or are effectively controlled by them or their nationals, shall be carried out in conformity with the provisions of this Part. The same responsibility applies to international organizations for activities in the Area undertaken by such organizations. Without prejudice to applicable principles of international law and article 22 of annex III, damage caused by the failure of a State Party to carry out its responsibilities under this Part shall entail liability. A State Party shall not however be liable for damage caused by any failure to comply by a person whom it has sponsored under article 153, paragraph 2(b), if the State Party has taken all necessary and appropriate measures to secure effective compliance under article 153, paragraph 4 and article 4, paragraph 3 of annex III.

2. A group of States Parties or a group of international organizations, acting together, shall be jointly and severally responsible under these articles.

3. States Parties shall take appropriate measures to ensure that the responsibility provided for in paragraph 1 shall apply *mutatis mutandis* to international organizations.

Article 140

Benefit of Mankind

1. Activities in the Area shall, as specifically provided for in this Part, be carried out for the benefit of mankind as a whole, irrespective of the geographical location of States, whether coastal or land-locked, and taking into particular consideration the interests and needs of the developing States and peoples who have not attained full independence or other self-governing status recognized by the United Nations in accordance with General Assembly resolution 1515 (XV) and other relevant General Assembly resolutions.

2. The Authority shall provide for the equitable sharing of financial and other economic benefits derived from activities in the Area through any appropriate mechanism, on a non-discriminatory basis, in accordance with article 160, paragraph 2(f).

Article 141

Use of the Area Exclusively for Peaceful Purposes

The Area shall be open to use exclusively for peaceful purposes by all States, whether coastal or land-locked, without discrimination and without prejudice to the other provisions of this Part.

Article 142

Rights and Legitimate Interests of Coastal States

1. Activities in the Area, with respect to resource deposits in the Area which lie across limits of national jurisdiction, shall be conducted with due regard to the rights and legitimate interests of any coastal State across whose jurisdiction such resources lie.

2. Consultations, including a system of prior notification, shall be maintained with the State concerned, with a view to avoiding infringement of such rights and interests. In cases where activities in the Area may result in the exploitation of resources lying within national jurisdiction, the prior consent of the coastal State concerned shall be required.

3. Neither the provisions of this Part nor any rights granted or exercised pursuant thereto shall affect the rights of coastal States to take such measures consistent with the relevant provisions of Part XII as may be necessary to prevent, mitigate or eliminate grave and imminent danger to their coastlines, or related interests from pollution or threat thereof or form other hazardous occurrences resulting from or caused by any activities in the Area.

Section 4. Development of Resources of the Area

Article 150

Policies Relating to Activities in the Area

Activities in the Area shall, as specifically provided in this Part, be carried out in such a manner as to foster healthy development of the world economy and balanced growth of international trade, and to promote international cooperation for the overall development of all countries, especially the developing States and with a view to ensuring:

(a) orderly and safe development and rational management of the resources of the Area, including the efficient conduct of activities in the Area and, in accordance with sound principles of conservation, the avoidance of unnecessary waste;

(b) the expansion of opportunities for participation in such activities consistent particularly with articles 144 and 148;

(c) participation in revenues by the Authority and the transfer of technology to the Enterprise and developing States as provided for in this Convention;

(d) the increase in the availability of the minerals produced from the resources of the Area as needed in conjunction with minerals produced from other sources, to ensure supplies to consumers of such minerals;

(e) the promotion of just and stable prices remunerative to producers and fair to consumers for minerals produced both from the resources of the Area and from other sources, and promoting long term equilibrium between supply and demand;

(f) the enhancing of opportunities for all States Parties, irrespective of their social and economic systems or geographical location, to participate in the development of the resources of the Area and preventing monopolization of activities in the Area;

(g) the protection of developing countries from adverse effects on their economies or on their export earnings resulting from a reduction in the price of an affected mineral, or in the volume of that mineral exported, to the extent that such reductions are caused by activities in the Area, as provided in article 151;

(h) the development of the common heritage for the benefit of mankind as a whole; and

(i) conditions of access to markets for the imports of minerals produced from the resources of the Area and for imports of commodities produced from such minerals shall not be more favorable than the most favorable applied to imports from other sources.

Article 151

Production Policies

1. Without prejudice to the objectives set forth in article 150 and for the purpose of implementing the provisions of article 150, subparagraph (g), the Authority, acting through existing forums or such new arrangements or agreements as may be appropriate, in which all interested parties, including both producers and consumers, participate, shall take measures necessary to promote the growth, efficiency and stability of markets for those commodities produced from the resources of the Area, at prices remunerative to producers and fair to consumers. All States Parties shall cooperate to this end. The Authority shall have the right to participate in any commodity conference dealing with those commodities and in which all interested parties including both producers and consumers participate. The Authority shall have the right to become a party to any such arrangement or agreement resulting from such conferences as are referred to above. The participation by the Authority in any organs established under the arrangements or agreements referred to above shall be in respect of production in the Area and in accordance with the rules of procedure established for such organs. The Authority shall carry out its obligations under such arrangements or agreements in a manner which assures a uniform and non-discriminatory implementation in respect of all production in the Area of the minerals concerned. In doing so, the Authority shall act in a manner consistent with the terms of existing contracts and approved plans of work of the Enterprise.

2. During an interim period specified in subparagraph (a), commercial production shall not be undertaken pursuant to an approved plan of work until an operator has applied for and has been issued a production authorization from the Authority during a period beginning not more than five years prior to the planned commencement of commercial production under that plan of work unless the Authority prescribes another period in its rules and regulations having regard to the nature and timing of project development. In this connection, the Authority shall adopt appropriate performance requirements in accordance with article 17 of annex III. In his application for the authorization, the operator shall specify the annual quantity of nickel expected to be recovered under the approved plan of work. The application shall include a schedule of expenditures to be undertaken subsequent to receiving an authorization by the operator reasonably calculated to allow him to begin commercial production on the date planned. The Authority shall issue a production authorization for the level of production applied for

unless the sum of that level and the levels already authorized exceeds the nickel production ceiling, as calculated pursuant to subparagraph (b) in the year of issuance of the authorization, during any year of planned production falling within the interim period. When issued, the production authorization and approved application shall become a part of the approved plan of work.

(a) The interim period shall begin five years prior to 1 January of the year in which the earliest commercial production is planned to commence under an approved plan of work. In the event that the earliest commercial production is delayed beyond the year originally planned, the beginning of the interim period and the production ceiling originally calculated shall be adjusted accordingly. The interim period shall last 25 years or until the end of the Review Conference referred to in article 155 or until the day when such new arrangements or agreements as are referred to in paragraph 1 enter into force, whichever is earliest. The Authority shall resume the power provided in this paragraph for the remainder of the interim period if the said arrangements or agreements should lapse or become ineffective for any reason whatsoever;

(b) The production ceiling for any year of the interim period beginning with the year of the earliest commercial production shall be the sum of (i) and (ii) below:

(i) The difference between the trend line values for annual nickel consumption, as calculated pursuant to this subparagraph, for the year immediately prior to the year of the earliest commercial production and the year immediately prior to the commencement of the interim period; plus

(ii) Sixty percent of the difference between the trend line values for nickel consumption, as calculated pursuant to this subparagraph, for the year for which the production authorization is being applied for and the year immediately prior to the year of the earliest commercial production;

(iii) Trend line values used for computing the nickel production ceiling pursuant to this subparagraph shall be those annual nickel consumption values on a trend line computed during the year in which a production authorization is issued. The trend line shall be derived from a linear regression of the logarithms of actual nickel consumption for the most recent 15-year period for which such data are available, time being the independent variable. This trend line shall be referred to as the original trend line.

(iv) If the annual rate of increase of the original trend line is less than three percent, then the trend line used to determine the quantities referred to in (i) and (ii) shall instead be one passing through the original trend line at the value for the first year of the relevant 15-year period, and increasing at three percent annually. Provided however that the production ceiling established for any year of the interim period may not in any case exceed the difference between the original

trend line value for that year and the original trend line value for the year immediately prior to the commencement of the interim period.

(c) The Authority shall reserve for production by the Enterprise for its initial use a quantity of 38,000 tons of nickel from the available production ceiling calculated pursuant to subparagraph (b);

(d) If, pursuant to subparagraph (b), the operator's application for an authorization is denied, the operator may reapply to the Authority at any time;

(e) An operator may in any year produce less than or up to eight percent more than that level of annual production of minerals from nodules specified in his production authorization, provided that the overall amount of production shall not exceed that specified in the authorization. Any increase over eight percent and up to 20 percent in any year or any increase in the third and subsequent years following two consequent years in which increases occur shall be negotiated with the Authority, which may require the operator to obtain a supplementary production authorization to cover additional production. Applications for such supplementary production shall be taken up by the Authority only after all pending applications by operators who have not yet received production authorizations have been acted upon and due account has been taken of other likely applicants. The Authority shall be guided by the principle of not exceeding the total production allowed under the production limitation in any year of the interim period. It shall not authorize the production under any plan of work, of a quantity in excess of 46,500 tons of nickel per year.

(f) The levels of production of other metals such as copper, cobalt and manganese extracted from the nodules that are recovered pursuant to a production authorization should not be higher than those which would have been produced had the operator produced the maximum level of nickel from those nodules pursuant to this paragraph. The Authority shall establish rules and regulations pursuant to article 17 of annex III to implement the provisions of this subparagraph.

3. The Authority shall have the power to limit the level of production of minerals from the Area, other than minerals from nodules, under such conditions and applying such methods as may be appropriate. Regulations adopted by the Authority pursuant to this provision will be subject to the procedure set forth in article .... (entry into force of amendments to this Convention).

4. Following recommendations from the Council on the basis of advice from the Economic Planning Commission, the Assembly shall establish a system of compensation or other measures of economic adjustment assistance including cooperation with specialized agencies and other international organizations to assist developing countries which suffer serious adverse effects on their export earnings or economies resulting from a reduction in the price of an affected mineral or the volume of mineral exported, to the extent that such reduction is caused by

activities in the Area. The Authority on request shall initiate studies on the problems of those States which are likely to be most seriously affected with a view to minimizing their difficulties and assisting them in their economic adjustment.

Section 5. The Authority

Article 156

Establishment of the Authority

1. There is hereby established the International Sea-Bed Authority which shall function in accordance with the provisions of this Part.

2. All States Parties are ipso facto members of the Authority.

3. The seat of the Authority shall be at Jamaica. (The Conference decided that at an appropriate time the Conference will be given an opportunity to express its preference among the candidatures of Jamaica, Malta, and Fiji by means of a vote unless the Conference decides otherwise.)

4. The Authority may establish such regional centers or offices as it deems necessary for the performance of its functions.

Article 157

Nature and Fundamental Principles of the Authority

1. The Authority is the organization through which States Parties shall organize and control activities in the Area, particularly with a view to administering the resources of the Area, in accordance with this Part.

2. The powers and functions of the Authority shall be those expressly conferred upon it by the relevant provisions of this Convention. The Authority shall have such incidental powers, consistent with the provisions of this Convention, as are implicit in and necessary for the performance of these powers and functions with respect to activities in the Area.

3. The Authority is based on the principle of the sovereign equality of all of its members.

4. All members, in order to ensure to all of them the rights and benefits resulting from membership, shall fulfill in good faith the obligations assumed by them in accordance with this Part.

Article 158

Organs of the Authority

1. There are hereby established as the principal organs of the Authority, an Assembly, a Council and a Secretariat.

2. There is hereby established the Enterprise, the organ through which the Authority shall carry out the functions referred to in article 170, paragraph 1.

3. Such subsidiary organs as may be found necessary may be established in accordance with this Part.

4. The principal organs and the Enterprise shall each be responsible for exercising those powers and functions which have been conferred upon them. In exercising such powers and functions each organ shall avoid taking any action which may derogate from or impede the exercise of specific powers and functions conferred upon another organ.

Article 166

The Secretary-General

1. The Secretariat shall comprise a Secretary-General and such staff as the Authority may require. The Secretary-General shall be elected by the Assembly upon the recommendation of the Council for a four-year term and shall be eligible for re-election. He shall be the chief administrative officer of the Authority.

2. The Secretary-General shall act in that capacity in all meetings of the Assembly and of the Council, and of any subsidiary organs, and shall perform such other administrative functions as are entrusted to him by any such organs of the Authority.

3. The Secretary-General shall make an annual report to the Assembly on the work of the Authority.

Article 167

The Staff of the Authority

1. The staff of the Authority shall consist of such qualified scientific and technical and other personnel as may be required to fulfill the administrative functions of the Authority.

2. The paramount consideration in the recruitment and employment of the staff and in the determination of their conditions of service shall be to secure employees of the highest standards of efficiency, competence and integrity. Subject to this consideration, due regard shall be paid to the importance of recruiting the staff on as wide a geographical basis as possible.

3. The staff shall be appointed by the Secretary-General. The terms and conditions on which the staff shall be appointed, remunerated and dismissed shall be in accordance with the rules, regulations and procedures of the Authority.

Article 168

International Character and Responsibilities of the Secretariat

1. In the performance of their duties, the Secretary-General and the staff shall not seek or receive instructions from any other source external to the Authority. They shall refrain from any action which might reflect on their position as international officials of the Authority responsible only to the Authority. Each State Party undertakes to respect the exclusively international character of the responsibilities of the Secretary-General and the staff and not to seek to

influence them in the discharge of their responsibilities. Any violation of responsibilities by a staff member shall be submitted to appropriate administrative tribunal as provided in the rules, regulations and procedures of the Authority.

2. The Secretary-General and the staff shall have no financial interest whatsoever in any activity relating to exploration and exploitation in the Area. Subject to their responsibilities to the Authority, they shall not disclose, even after the termination of their functions, any industrial secret or data which is proprietary in accordance with article 14 of annex III, or other confidential information of commercial value coming to their knowledge by reason of their official duties with or on behalf of the Authority.

Article 169

Consultation and Cooperation with International and Non-governmental Organizations

1. The Secretary-General shall, on matters within the competence of the Authority, make suitable arrangements, with the approval of the Council, for consultation and cooperation with international and non-governmental organizations recognized by the Economic and Social Council of the United Nations.

2. Any organization with which the Secretary-General has entered into an arrangement under paragraph 1 may designate representatives to attend as observers meetings of the organs of the Authority in accordance with the rules of procedure of any such organ. Procedures shall be established for obtaining the views of such organizations in appropriate cases.

3. The Secretary-General may distribute to States Parties written reports submitted by these non-governmental organizations on subjects in which they have special competence and which are related to the work of the Authority.

Article 170

The Enterprise

1. The Enterprise shall be the organ of the Authority which shall carry out activities in the Area directly, pursuant to article 155, paragraph 2(a), as well as transportation, processing and marketing of minerals recovered from the Area.

2. The Enterprise shall, within the framework of the international legal personality of the Authority, have such legal capacity as is provided for in the Statute set forth in annex IV. The Enterprise shall act in accordance with the provisions of this Convention and the rules, regulations and procedures of the Authority, as well as the

general policies established by the Assembly, and shall be subject to the directives and control of the Council.

3. The Enterprise shall have its principal place of business at the seat of the Authority.

4. The Enterprise shall, in accordance with article 175, paragraph 2, and article 11 of annex IV, be provided with such funds as it may require to carry out its functions, and shall receive technology as provided in article 144 and other relevant provisions of this Convention.

APPENDIX C

Article 188

Submission of Disputes to a Special Chamber of the International Tribunal for the Law of the Sea or an Ad Hoc Chamber of the Sea-Bed Disputes Chamber or to Binding Arbitration

1. Disputes between States Parties referred to in article 187, subparagraph (a), may be submitted:

(a) to a special chamber of the International Tribunal for the Law of the Sea to be established in accordance with articles 15 and 17 of annex VI, upon the request of the parties to the dispute; or

(b) to an ad hoc chamber of the Sea-Bed Disputes Chamber to be established in accordance with article 37 of annex VI, upon the request of any party to the dispute.

2. (A) Disputes concerning the interpretation or application of a contract referred to in article 187, paragraph (c) (i), shall be submitted, at the request of any party to the dispute, to binding commercial arbitration, unless at any time the parties to the dispute otherwise agree or have agreed. A commercial arbitral tribunal, to which such dispute is submitted, shall have no jurisdiction to determine any question of interpretation of this Convention. When such a dispute also involves a question of the interpretation of Part XI and the annexes relating thereto, with respect to activities in the Area, such question shall be referred to the Sea-Bed Disputes Chamber for a ruling.

(b) If, at the commencement of or in the course of such arbitration, the arbitral tribunal determines, either at the request of any party to the dispute or proprio motu, that its decision depends upon a ruling of the Sea-Bed Disputes Chamber, the arbitral tribunal shall refer such question to the Sea-Bed Disputes Chamber for such ruling. The arbitral tribunal shall then proceed to render its award in conformity with the ruling of the Sea-Bed Disputes Chamber.

(c) Unless the parties to the dispute otherwise agree, in the absence of a provision in the contract on the arbitration procedure to be applied in such a dispute, the arbitration shall be conducted in accordance with the UNCITRAL Arbitration Rules or other arbitration rules as may be prescribed in the rules, regulations and procedures adopted by the Authority.

APPENDIX D

DEVELOPMENT AND TRANSFER OF MARINE TECHNOLOGY

Section 1. General Provisions

Article 266

Promotion of the Development and Transfer of Marine Technology

1. States, direclty or through competent international organizations, shall cooperate within their capabilities to promote actively the development and transfer of marine science and marine technology on fair and reasonable terms and conditions.

2. States shall promote the development of the marine scientific and technological capacity of States which may need and request technical assistance in this field, particularly developing States, including landlocked and geographically disadvantaged States, with regard to the exploration, exploitation, conservation and management of marine resources, the protection and preservation of the marine environment, marine scientific research and other activities in the marine environment compatible with this Convention, with a view to accelerating the social and economic development of the developing States.

3. States shall endeavor to foster favorable economic and legal conditions for the transfer of marine technology for the benefit of all parties concerned on an equitable basis.

Article 267

Protection of Legitimate Interests

States, in promoting cooperation, pursuant to article 266, shall have due regard for all legitimate interests including, inter alia, the rights and duties of holders, suppliers and recipients of marine technology.

Article 268

Basic Objectives

States, directly or through competent international organizations, shall promote:

(a) the acquisition, evaluation and dissemination of marine technological knowledge and facilitate access to such information and data;

(b) the development of appropriate marine technolgoy;

(c) the development of the necessary technological infrastructure to facilitate the transfer of marine technology;

(d) the development of human resources through training and education of nationals of developing States and countries and especially of the least developed among them;

(e) international cooperation at all levels, particularly at the regional, subregional and bilateral levels.

Article 269

Measures to Achieve the Basic Objectives

In order to achieve the above-mentioned objectives, States, directly or through competent international organizations, shall endeavor, inter alia, to:

(a) establish programmes of technical cooperation for the effective transfer of all kinds of marine technology to States which may need and request technical assistance in this field, particularly the developing land-locked and geographically disadvantaged States, as well as other developing States which have not been able either to establish or develop their own technological capacity in marine science and in the exploration and exploitation of marine resources, or to develop the infrastructure of such technology;

(b) promote favorable conditions for the conclusion of agreements, contracts and other similar arrangements, under equitable and reasonable conditions;

(c) hold conferences, seminars and symposia on scientific and technological subjects, in particular on policies and methods for the transfer of marine technology;

(d) promote the exchange of scientists, technological and other experts;

(e) undertake projects and promote joint ventures and other forms of bilateral and multilateral cooperation.

Section 2. International Cooperation

Article 270

Ways and Means of International Cooperation

International cooperation for the development and transfer of marine technology shall be carried out, where feasible and appropriate, through existing bilateral, regional or multilateral programmes, and also through expanded and new programmes in order to facilitate marine scientific research, the transfer of marine technology, particularly in new fields, and appropriate international funding for ocean research and development.

Article 271

Guidelines, Criteria and Standards

States, directly or through competent international organizations, shall promote the establishment of generally accepted guidelines, criteria and standards for the transfer of marine technology on a bilateral basis or within the framework of international organizations and other fora, taking into account, in particular, the interests and needs of developing States.

Article 272

Coordination of International Programmes

In the field of transfer of marine technology, States shall endeavor to ensure that competent international organizations coordinate their activities, including any regional or global programmes taking into account the interests and needs of developing States, particularly landlocked and geographically disadvantaged States.

Article 273

Cooperation with International Organizations and the Authority in the Transfer of Marine Technology to Developing States

States shall cooperate actively with competent international organizations and the Authority, to encourage and facilitate the transfer to developing States, their nationals and the Enterprise of skills and technology with regard to activities in the Area.

Article 274

Objectives of the Authority with Respect to the Transfer of Marine Technology

Subject to all legitimate interests including, inter alia, the rights and duties of holders, suppliers and recipients of technology, the Authority, with regard to activities in the Area, shall ensure that:

(a) on the basis of the principle of equitable geographical distribution, nationals of developing States, whether coastal, land-locked or geographically disadvantaged, shall be taken on for the purposes of training as members of the managerial, research and technical staff constituted for its undertakings;

(b) the technical documentation on the relevant equipment, machinery, devices and processes be made available to all States, in particular developing States which may need and request technical assistance in this field;

(c) adequate provision is made by the Authority to facilitate the acquisition by States which may need and request technical assistance in the field of marine technology, in particular developing States, and the acquisition by their nationals of the necessary skills and know-how, including professional training;

(d) States which may need and request technical assistance in this field, in particular developing States, are assisted in the acquisition of necessary equipment, processes, plant and other technical know-how through any financial arrangements provided for in this Convention.

APPENDIX E

ANNEX III

BASIC CONDITIONS OF PROSPECTING, EXPLORATION AND EXPLOITATION

Article 1

Title to Minerals

Title to minerals shall pass upon recovery in accordance with this Convention.

Article 2

Prospecting

1. (a) The Authority shall encourage the conduct of prospecting in the Area.

(b) Prospecting shall be conducted only after the Authority has received a satisfactory written undertaking that the proposed prospector shall comply with this Convention and the relevant rules and regulations of the Authority concerning protection of the marine environment, cooperation in training programmes according to articles 143 and 144 of Part XI of this Convention and accepts verification by the Authority of compliance. The proposed prospector shall, together with the undertaking, notify the Authority of the broad area or areas in which prospecting is to take place.

(c) Prospecting may be carried out by more than one prospector in the same area or areas simultaneously.

2. Prospecting shall not confer any preferential, proprietary, exclusive or any other rights on the prospector with respect to the resources. A prospector shall however, be entitled to recover a reasonable amount of resources of the Area to be used for sampling.

Article 3

Exploration and Exploitation

1. The Enterprise, States Parties, and the other entities referred to in article 153, paragraph 2(b), of Part XI of this Convention, may apply to the Authority for approval of plans fo work covering activities of the Area.

2. The Enterprise may apply with respect to any part of the Area, but applications by others with respect to reserved areas are subject to the additional requirements of article 9.

3. Exploration and exploitation shall be carried out only in areas specified in plans of work referred to in article 153, paragraph 3, of Part XI of this Convention and approved by the Authority in accordance with the provisions of this annex and the relevant rules, regulations and procedures of the Authority.

4. Every plan of work approved by the Authority shall:

(a) Be in strict conformity with this Convention and the rules and regulations of the Authority;

(b) Ensure control by the Authority of activities in the Area in accordance with article 153, paragraph 4, of Part XI of this Convention;

(c) Confer on the operator exclusive rights for the exploration and exploitation of the specified categories of resources in the area covered by the plan of work in accordance with the rules and regulations of the Authority. If the applicant presents a plan of work for one of the two stages only, the plan of work may confer exclusive rights with respect to such a stage.

5. Except for plans of work proposed by the Enterprise, each plan of work shall take the form of a contract to be signed by the Authority and the operator or operators upon approval of the plan of work by the Authority.

Article 4

Qualifications of Applicants

1. Applicants, other than the Enterprise, shall be qualified if they have the nationality or control and sponsorship required by article 153, paragraph 2(b), of Part XI of this Convention and if they follow the procedures and meet the qualification standards established by the Authority by means of rules, regulations and procedures.

2. Sponsorship by the State Party of which the applicant is a national shall be sufficient unless the applicant has more than one nationality, as in the case of a partnership or consortium of entities from several States, in which event all States Parties involved shall sponsor the application, or unless the applicant is effectively controlled by another State Party or its nationals, in which event both States Parties shall sponsor the application. The criteria and procedures for implementation of the sponsorship requirements shall be set forth in the fules, regulations and procedures of the Authority.

3. The sponsoring State or States shall, pursuant to article 139 of Part XI of this Convention, have the responsibility to ensure, within their legal systems, that a contractor so sponsored shall carry out activities in the Area in conformity with its obligations under this Convention and the terms of its contract. A sponsoring State shall not, however, be liable for damage caused by any failure of a contractor sponsored by it to comply with its obligations if that State Party has adopted laws and regulations and taken administrative measures which are, within the framework of its legal system, reasonably appropriate for securing compliance by persons under its jurisdiction.

4. Except as provided in paragraph 6, such qualification standards shall relate to the financial and technical capabilities of the applicant and his performance under previous contracts with the Authority.

5. The procedures for assessing the qualifications of States Parties which are applicants shall take into account their character as States.

6. The qualification standards shall require that every applicant, without exception, shall as part of his application undertake:

(a) To accept as enforceable and comply with the applicable obligations created by the provisions of Part XI, rules and regulations of the Authority, decisions of the organs of the Authority, and terms of his contracts with the Authority;

(b) to accept control by the Authority of activities in the Area, as authorized by this Convention;

(c) to provide the Authority with a written assurance that his obligations under the contract will be fulfilled in good faith;

(d) to comply with the provisions on the transfer of technology set forth in article 5.

Article 5

Transfer of Technology

1. When submitting a proposed plan of work, every applicant shall make available to the Authority a general description of the equipment

and methods to be used in carrying out activities in the Area, as well as other relevant non-proprietary information about the characteristics of such technology, and information as to where such technology is available.

2. Every operator under an approved plan of work shall inform the Authority of revisions in the description and information required by paragraph 1 whenever a substantial technological change or innovation is introduced.

3. Every contract for the conduct of activities in the Area entered into by the Authority shall contain the following undertakings by the operator:

(a) To make available to the Enterprise, if and when the Authority shall so request and on fair and reasonable commercial terms and conditions, the technology which he uses in carrying out activities in the Area under the contract and which he is legally entitled to transfer. This shall be done by means of licence or other appropriate arrangements which the operator shall negotiate with the Enterprise and which shall be set forth in a special agreement supplementary to the contract. This commitment may be invoked only if the Enterprise finds that it is unable to obtain the same or equally efficient and useful technology on the open market and on fair and reasonable commercial terms and conditions;

(b) To obtain a written assurance from the owner of any technology not covered under subparagraph (a) that the operator uses in carrying out activities in the Area under the contract and which is not generally available on the open market that the owner will, if and when the Authority so requests, make available to the Enterprise to the same extent as made available to the operator, that technology under licence or other appropriate arrangements and on fair and reasonable commercial terms and conditions. If such assurance is not obtained, the technology in question shall not be used by the operator in carrying out activities in the Area;

(c) To acquire, if and when requested to do so by the Enterprise and whenever it is possible to do so without substantial cost to the contractor, a legally binding and enforceable right to transfer to the Enterprise in accordance with subparagraph (a) any technology he uses in carrying out activities in the Area under the contract which he is not legally entitled to transfer and which is not generally available on the open market. In cases where there is a substantial corporate relationship between the operator and the owner of the technology, the closeness of this relationship and the degree of control or influence shall be relevant to the determination whether all feasible measures have been taken. In cases where the operator exercises effective control over the owner, failure to acquire the legal rights from the owner shall be considered relevant to the applicant's qualifications for any subsequent proposed plan of work;

(d) To facilitate the acquisition by the Enterprise under licence or other appropriate arrangements and on fair and reasonable commercial terms and conditions any technology covered by subparagraph (b) should the Enterprise decide to negotiate directly with the owner of the technology and request such facilitation;

(e) To take the same measures as those prescribed in subparagraphs (a), (b), (c) and (d) for the benefit of a developing State or group of developing States which has applied for a contract under article 9, provided that these measures shall be limited to the exploitation of the part of the area proposed by the contractor which has been reserved pursuant to article 8 and provided that activities under the contract sought by the developing State or group of developing States would not involve transfer of technology to a third State or the nationals of a third State. Obligations under this provision shall only apply with respect to any given contractor where technology has not been requested or transferred by him to the Enterprise.

4. Disputes concerning the undertakings required by paragraph 3, like other provisions of the contracts, shall be subject to compulsory dispute settlement in accordance with Part XI, and monetary penalties, suspension, or termination of contract as provided in article 18. Disutes as to whether offers made by the contractor are within the range of fair and reasonable commercial terms and conditions may be submitted by either party to binding commercial arbitration in accordance with the UNCITRAL Arbitration Rules or other arbitration rules as may be prescribed in the rules, regulations and procedures of the Authority. In any case in which the finding is negative, the contractor shall be given 45 days to revise his offer to bring it within that range before the Authority makes any determinations with respect to violation of the contract and the imposition of penalities, as provided in article 18.

5. In the event that the Enterprise is unable to obtain appropriate technology on fair and reasonable commercial terms and conditions to commence in a timely manner the recovery and processing of minerals from the Area, either the Council or the Assembly may convene a group of States Parties composed of those which are engaged in activities in the Area, those which have sponsored entities which are engaged in activities in the Area and other States Parties having access to such technology. This group shall consult together and shall take effective measures to ensure that such technology is made available to the Enterprise on fair and reasonable commercial terms and conditions. Each such State Party shall take all feasible measures to this end within its own legal system.

6. In the case of joint ventures with the Enterprise, technology transfer will be in accordance with the terms of the joint venture agreement.

7. The undertakings required by paragraph 3 shall be included in each contract for the conduct of activities in the Area until 10 years after the Enterprise has begun commercial production of minerals from the resources of the Area and may be invoked during that period.

8. For the purposes of this article, "technology" means the specialized equipment and technical know-how, including manuals, designs, operating instructions, training and technical advice and assistance, necessary to assemble, maintain and operate a viable system and the legal right to use these items for that purpose on a non-exclusive basis.