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Deep Ocean Mining: Beginning of a New Era

John M. Murphy*

1. Introduction

THE THIRD LAW of the Sea Conference is contending with many ocean issues of concern to the world community. Among the most important issues include the breadth of the territorial sea, the 200-mile economic zone, freedom of transit through international straits, scientific research, preservation of the marine environment, and an international regime to deal with seabed minerals. The seabed regime is undoubtedly the most contentious of the issues before the Conference.

Since the expedition of the Challenger (1873-1876), man has been aware of the existence of hard minerals located on the deep seabeds of the oceans. It was not until 80 years after that discovery that an investigation of those minerals by a student at the University of California at Berkeley led to the realization that the minerals, called nodules, were of considerable value, and even then the mining companies were not interested.1 The primary reason was the lack of technology and the excessive costs of recovering the nodules at that time. However, it was not long before the true value of manganese nodules became known to the mining industry, and in the last 15 years the industry has spent over $100 million researching methods of recovering and processing the nodules.

Manganese nodules are small potato-sized objects approximately 1-15 centimeters in diameter and average 5 centimeters across.2 The nodules are formed around a nucleus of a rock, plant or animal remains, such as a whale’s earbone, a shark’s tooth, or a grain of sand. They are formed when metal ions in sea water attach to the nucleus. The ocean floors around the world are literally covered with nodules in some areas, primarily the Pacific, Atlantic,

* Member of Congress, 17th Distict, New York. I would like to express my sincere gratitude for the research assistance of Thomas E. Kane, Esq., Ocean and Coastal Resources Project, Congressional Research Service, The Library of Congress, in the preparation of this article.


and Indian Oceans. The mining industry estimates that there is approximately $3 trillion worth of nickel, manganese, cobalt and copper present in the nodules, which are located at depths of over 12,000 feet.

In addition to the dollar value of these nodules, there is a more compelling reason for the United States to encourage the development of this industry. The Department of the Interior has estimated that our current dependence on foreign sources of manganese, copper, nickel, and cobalt can be vastly reduced, if not totally eliminated, by 1990. Instead of importing 82 percent of our manganese needs, we could be virtually independent by 1990. And we could become totally independent in terms of nickel, copper, and cobalt, whereas we now import 82 percent of our nickel, 5 percent of our copper, and 77 percent of our cobalt. (See figure.)

### U.S. NET IMPORTS AS % OF CONSUMPTION

<table>
<thead>
<tr>
<th></th>
<th>1973</th>
<th>ESTIMATED 1985 (WITH OCEAN MINING)</th>
<th>ESTIMATED 1990 (WITH OCEAN MINING)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NICKEL</strong></td>
<td>82</td>
<td>34 NO IMPORTS</td>
<td>NO IMPORTS</td>
</tr>
<tr>
<td><strong>COPPER</strong></td>
<td>4.6</td>
<td>.3 NO IMPORTS</td>
<td>NO IMPORTS</td>
</tr>
<tr>
<td><strong>COBALT</strong></td>
<td>77</td>
<td>NO IMPORTS</td>
<td>NO IMPORTS</td>
</tr>
<tr>
<td><strong>MANGANESE</strong></td>
<td>82</td>
<td>45 23</td>
<td></td>
</tr>
</tbody>
</table>

1. Assuming 15 million tons ocean mining production in U.S. manganese being extracted from 4 million tons.
2. Assuming 36 million tons ocean mining production in U.S. manganese being extracted from 7 million tons. This table assumes that seabed production will supply half of the growth segment of the nickel market from 1985 to 1990. If seabed production were to supply all of the growth segment, the figure would rise dramatically. For example, the U.S. in 1990 could be a net exporter of nickel equivalent to 20% of domestic consumption.
3. Current techniques for processing nodules yield metallurgical grade manganese, for which demand is limited. Estimates of seabed manganese production are thus speculative.
are important minerals, and a valuable lesson can be learned from our dependence on foreign oil.

II. State of the Art

The mining industry has spent approximately $100 million on developing the necessary technology to arrive at the economic recovery and processing of deepsea minerals. Marne A. Dubs, chairman of the Committee on Undersea Mineral Resources, American Mining Congress, reported to a Senate subcommittee that "the technology of ocean mining is at hand." He went on to say that substantial progress has been made in ocean mining development and the subsequent stages will depend less on the technicians and more on the politicians, lawyers and diplomats.

Both Kennecott Copper Corporation, and Deapsea Ventures (a subsidiary of Tenneco) are mining companies that are well advanced in the technology of deep ocean mining. Kennecott, for example, indicates that it is well aware of the location, the metallurgical grade, and the tonnage of large manganese nodules that are of substantial commercial value. They also claim to have detailed information as to the specific location of potential mining sites and the types of equipment that will be required to mine those deposits. The industry points out that different types of nodules are found at different sites on the ocean floor; that is, that the metal composition is as varied as the sites themselves. Additionally, Kennecott has tested mining equipment at depths of 15,000 feet in the Pacific Ocean; and therefore the company is confident that technical feasibility of ocean mining exists. Deepsea Ventures has also stated that it has obtained the technological parameters necessary to successfully develop the deep seabed for minerals. Deepsea Ventures has located and made a formal claim with the Department of State for an area of 60,000, later to be reduced to 30,000, square kilometers in the Pacific Ocean, where it has discovered several large deposits of manganese nodules which they believe have sufficient ore to result in an economic operation. They have done extensive surveying of the topography.

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4 Id. at 5.
5 Id. at 6.
of the deposit, mapped the obstructions of the area, and gathered numerous samples, in addition to valuable oceanographic data. This required several missions to the area to acquire the necessary information to determine the potential of the area. Even with this detail already acquired the company needs to expend additional funds to confirm the performance of the mining system and to obtain refined data of the area. Mining systems have been sampled and tested to arrive at the best system, which may vary for different deposits. Finally, the processing stage has required extensive work in the area of metal winning, which has resulted in the extraction of manganese, cobalt, copper, nickel, zinc, molybdenum, and even vanadium from the nodules.

The status of the art of deepsea mining is summed up by Marne Dubs when he related to the subcommittee his opinion of the "collective" position of the industry:

(1) They have identified nodule deposits which could provide satisfactory mine sites. Mine site definition will require a large amount of work and substantial expenditures. To carry this work out without protection of investment and assurances for the future ability to mine the site is financially very risky.

(2) They have largely solved the metallurgical problems of winning metals from nodules. They have either run pilot plants or will do so in the near future. The next steps will require much larger and more costly pilot plant or demonstration plant tests. These tests must be run with nodules obtained from a mine site which would constitute a known supply for the commercial plant whose design would be based on these tests.

(3) Development of the mining systems has progressed from the drawing board and computer stage and away from simple laboratory tests to large scale at sea experimentation. The costs of such work are very high and in fact are unique in industrial technology development.

In conclusion, there is no longer any doubt about the technical and economic feasibility of ocean mining. The technology is ready; the investment climate is not.\(^6\)

Even with the progress and the definite technological advances which the industry has attained, serious problems exist. Simply stated, the problems boil down to where do we go from here. As pointed out by Marne Dubs at the Senate hearing,\(^7\) where he quoted from the resolution of the American Mining Congress at their October 1, 1975 meeting:

\(^6\) Id. at 4.

\(^7\) Id. at 3.
The technology of recovering minerals from the depths of the sea and processing them into useful raw materials has been under development by private industry for over ten years at its own cost. However, the future course of action by industry is threatened by uncertain investment conditions resulting from the failure to achieve a timely and satisfactory international regime on the law of the sea or domestic legislation which moves toward a stable and predictable investment climate.

Therefore, the most serious problems from the industry’s standpoint, at the present time, is the lack of a stable national or international legal and political climate.

The major problem is the fear of the unknown, which has made banks, and indeed the companies themselves, wary of investing large sums of money in deepsea mining when they have no idea whether they will recover their investments, not to mention whether they will return a profit on the venture. The uncertainty revolves around the current Third Law of the Sea Conference, which is scheduled to meet for the third time in New York in March of this year with no clear resolution to the seabed mining issue in sight. The effect of failure of the Law of the Sea Conference and the lack of domestic legislation to protect the industry’s interests in the event that the Law of the Sea Conference reaches some agreement on this issue, has led to related fears in the industry, such as the loss of their technological lead, shortage of money, loss of skilled workers, loss of lead time, and security of tenure.

The lack of investment climate has also been pointed out by Thomas Houseman, Vice President, Chase Manhattan Bank, as the main reason that, at the time that mining companies are turning to external debt, i.e. to financial institutions, the institutions are reluctant to provide the investment money. Even though these institutions recognize that under existing international law there are no restrictions on seabed mining in the exercise of freedom of the seas; however:

... in view of the demonstrated desire of the international community to establish control over such activity, the present absence of political sponsorship and security of tenure constitutes an unacceptable business risk to a financial institution.8

This security of tenure, which requires some certainty on the part of the mining companies and the financial institutions that their investment in a mining venture will not be lost by reason of an LOS agreement that ignores their efforts, is the basic issue.

8 Id. at 13.
Thus, it is not surprising that the seabed developers are seeking domestic legislation which would assure that any agreement that the United States enters into at the Conference, will protect their rights and efforts; or in the alternative, that domestic legislation will give some protection in the form of insurance or governmental guarantees.

In addition to investment security, the companies are fearful of further delay. Failure to reach some timely international accord or national legislation which will protect the industries' interest has caused concern for the effect of delay on the present state of the art and competitive edge. Further delays, according to John E. Flipse, President of Deepsea Ventures, add to the risk that the technological lead that his company has attained will be eroded by continued efforts to protect their patents, by supporting the Departments of the Interior and Commerce through explanations of the industry's needs, and by the legislative process, which he feels "must be useful to our competition." Not only is it more likely that the technological lead may be lost but it may become more difficult to keep skilled workers and the equipment together if delay continues much longer.

Finally, in view of the U.S. imports of these precious metals, and the fact that U.S. mining companies appear to hold the technological lead and could presently carry out economic mining ventures, it would appear that it is in the national interest for the U.S. to encourage, whether internationally or domestically, the development of seabed mining to protect its source of supply of these resources. If U.S. companies are able to acquire investment security in a manner that permits them to conduct economic ventures, it would assume that the U.S. would have access to these needed resources. Yet if the U.S. government does not encourage seabed development, it appears that the U.S. companies will seek a more favorable governmental response abroad. Jack W. Carlson, Assistant Secretary of the Interior for Energy and Minerals, reported to the Senate Subcommittee on Minerals, Materials and Fuels of the Committee on Interior and Insular Affairs in March, 1975, that the companies' investment plans required large expenditures of money within the next 1 to 2 years. If this is not accomplished, the Committee's Report relates:

Mr. Carlson warned that there is a serious risk that, if a stable investment climate for ocean mining does not come into

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9 Id. at 9.
10 Id. at 2.
being within this time-frame, U.S. companies will not undertake the next stage of development or will seek to domesticate their operations abroad.\textsuperscript{11}

The report goes on to point out that Mr. Carlson stressed the need to obtain an agreement on the LOS, and if this is not possible, the Administration would reluctantly consider supporting domestic legislation. As will be pointed out herein, the probability of reaching an international agreement is becoming more remote.

\section*{III. \textit{Existing International Law}}

\subsection*{A. \textit{Truman Proclamation of 1945}}

The beginning of current international law relating to ocean resources came about with President Truman's Executive Proclamation\textsuperscript{12} in 1945, which was a unilateral assertion by the United States that it and no other nation had the exclusive jurisdiction and control over the natural resources of the subsoil and seabed of the Continental Shelf adjacent to our coast beyond the 3-mile territorial limit.

This proclamation became recognized and accepted as a rule of international law. In the \textit{North Sea Cases}, the International Court of Justice stated:

The Truman Proclamation however, soon came to be regarded as the starting point of the positive law on the subject, and the chief doctrine it enunciated, namely that of the coastal State as having original, natural, and exclusive (in short a vested) right to the continental shelf off its shores, came to prevail over all others, being now reflected in Article 2 of the 1958 Geneva Convention on the Continental Shelf.\textsuperscript{13}

Prior to the Proclamation and its later acceptance in international law, seabed resources belonged to no one and became exclusive property only through actual exploitation.\textsuperscript{14}

\subsection*{B. \textit{First Law of the Sea Conference (1958)}}

The Truman Proclamation as pointed out by the International Court of Justice was recognized and incorporated by one of the 1958 Conventions on the Law of the Sea; specifically in the Convention on the Continental Shelf\textsuperscript{15} where it states in Article 2:

1. The Coastal State exercises over the continental shelf sov-

\textsuperscript{11} \textit{Id.}


\textsuperscript{13} The North Sea Continental Shelf Cases, (1969) I.C.J. 3, at 32-34.

\textsuperscript{14} \textit{See supra} note 3, at 73.

ereign rights for the purpose of exploring it and exploiting its natural resources.

The other three Conventions dealt with issues involving the territorial sea, fishing and conservation of the resources of high seas, and the high seas itself. The latter convention (Convention on the High Seas\(^\text{16}\)) also has bearing on the existing international law relative to deep seabed mining. It specifically guarantees four principal freedoms of the seas, i.e. navigation, fishing, overflight, and laying of submarine cables and pipelines. The High Seas Convention did not restrict freedom of the seas to these four, however, but went on to explain:

> These freedoms, and others which are recognized by the general principle of international law, shall be exercised by all States with reasonable regard to the interests of other States in their exercise of the freedom of the high seas. (Emphasis supplied)\(^\text{17}\)

It is this right to "other" freedoms of the seas that some have argued includes the freedom to exploit the mineral resources of the seabed underlying the high seas. Northcutt Ely, Esq., a recognized authority in this field, in an opinion prepared for Deepsea Ventures, convincingly argues that the right to explore and exploit seabed resources was intended to be one of the "other" freedoms of the seas mentioned in the High Seas Convention.\(^\text{18}\)

He points out that the language of the Convention on the High Seas closely follows the language drafted by the International Law Commission, which in its reports of 1955 and 1956 addresses seabed mining as one of the "other" freedoms of the seas.\(^\text{19}\) Even though there is no definitive statement in any of the 1958 Geneva Conventions on the Law of the Seas which clarifies that the exploration and exploitation of the seabed resources is or is not permitted under international law, there seems little doubt that such activity is permitted under customary international law.

It is clear that the 1958 Conventions failed in this and other areas to resolve questions relative to the law of the sea. They did not resolve questions involving, in addition to seabed mining, the breadth of the territorial sea; coastal state's preferential rights to living resources beyond its territorial sea; the extension of the con-


\(^{17}\) Id. art. 2.


\(^{19}\) Id. at 88-89.
C. Second Law of the Sea Convention (1960). In March 1960, 89 nations (3 more than in 1958) met in Geneva in an attempt to reach agreement on either the breadth of the territorial sea or upon an exclusive fishery zone. The objectives failed when the Canadian and U.S. proposal (6-mile territorial sea and a 6-mile fishery zone) fell one vote short of the two-thirds majority necessary. There was no attempt in 1960 to reach an agreement on seabed resources since it was believed that development of the seabed was not possible for 20 years or more.

D. The Malta Resolution of 1967. As technology increased to the point where development of deep seabed resources was no longer considered futuristic, debate became intense over whether the deep sea resources belonged to no one and thus were open to exploitation by anybody (res nullius); or belonged to everyone and thus not subject to individual appropriation or sovereignty (res communis).

Ambassador to the U.N. Arvid Pardo of Malta introduced a draft resolution in 1967, which called for an international organization to control seabed resources, which then would not be subject to national appropriation beyond national jurisdiction; and further, that the seabed would be forever reserved for peaceful purposes. This was to counter claims made by some nations that the seabeds had already been divided among the coastal nations at the ocean trenches, in view of the 1958 Continental Shelf Convention. Although Pardo's resolution was not adopted, the U.N. General Assembly did establish an Ad Hoc Seabed Committee consisting of 33 members for the purpose of studying the principles raised by the Malta Resolution. A year later, the Committee acquired a permanent standing committee status with 42 members.

E. The Moratorium Resolution (1969). With the failure of the Malta Resolution and the increased activity in the deep seabed, the developing nations became increasingly concerned that exclu-

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21 Id. at 9.
23 See supra note 20, at 9.
sive claims by nations with ocean mining technology would occur before the Seabed Committee could complete its work. Therefore, in 1969 another resolution was introduced which set forth:

The General Assembly . . . declares that, pending the establishment of the aforementioned international [seabed] regime:

(a) States and persons, physical or juridical, are bound to refrain from all activities of exploitation of the resources of the area of the sea-bed and ocean floor, and the subsoil thereof, beyond the limits of national jurisdiction;
(b) No claim to any part of that area or its resources shall be recognized.24

This resolution, requiring nations and corporations to refrain from deep seabed mining until an international regime was established, passed by a vote of 62 to 28, with 28 abstentions. The United States voted against the resolution as did other industrial nations.25

The Moratorium Resolution is not binding on any nation or its citizens, but is only a recommendation or invitation to join in a treaty relationship concerning the issues raised.26 The U.N. charter does not give the General Assembly legislative powers, but only "the competence to pass recommendatory resolutions."27 Therefore, the United States is not "bound to refrain" from deep seabed mining. It is required to follow current international law, but resolutions do not have the stature of international law, except in the narrow areas of membership, budget, and the rules of procedure;28 and, therefore, the moratorium is not binding on the United States or its citizens.

F. The Declaration of Principles (1970). The U.N. General Assembly adopted resolution 2749 (XXV)29 in 1970, declaring that there is an area beyond national jurisdiction, the resources of which are the "common heritage of mankind"; and that the area is "not subject to appropriation" nor claims of sovereignty by any nation.30 It stated further that no rights to the resources may be established which are incompatible with the regime to be established.

25 See supra note 20, at 11.
26 Ely, supra note 18, at 119-121.
27 Id. at 120.
28 Id. at 121-122.
30 Id. arts. 1 and 2.
As with the Moratorium Resolution, the Declaration of Principles is not considered by the U.S. as prohibiting ocean mining nor is it a rule of international law. Additionally, the Declaration only provides that the area (not the resources) is not subject to appropriation; and, further that activities involving the development of the seabed resources will be controlled by a possible international regime that does not presently exist. In view of this and the fact that the Declaration is not binding under international law, no obstacle exists to ocean mining activity by nations or their citizens.

Although it would appear that the term "common heritage of mankind," contained in the Declaration, would imply that the resources belong to all nations, it should be pointed out that layman's language such as "common heritage of mankind" should not be confused with technical legal concepts by lawyers, diplomats or statesmen. Another lawyer stated it this way:

... 'common heritage of mankind', no matter how well motivated, in a legally binding document... carries no clear judicial connotation but belongs to the realm of politics, philosophy or morality and not law.

The Declaration of Principles was adopted by a vote of 108 to zero, with 14 abstentions. The United States voted in favor of the Declaration and while it supports it, does not agree with nations that argue that exploitation of the seabed resources by individuals or nations is prohibited by the resolution. Rather, it was pointed out by U.S. Ambassador John Norton Moore, Chairman, National Security Council's Interagency Task Force on Law of the Sea, in testimony at a Senate hearing as follows:

While we support the U.N. General Assembly's unanimous declaration that the seabed beyond the limits of national jurisdiction is the common heritage of mankind, we believe neither that title to the deep seabed or its resources is held by the world community, nor that title to any area of the deep seabed or its resources belongs to any state. Instead, we consider that the meaning of the principle of common heritage, as indicated by the principles which follow it in the resolution, will be elaborated in the international regime to be established.

31 Ely, supra note 18, at 119.
34 Hearings on Amendment No. 946 to S. 1134 Before the Senate Subcomm. on
It seems clear that the Moratorium Resolution and the Declaration of Principles do not alter the customary rules of international law as it relates to seabed mining; and the U.S. continues to believe that such activity is permitted under international law as a reasonable use of the high seas, even though not specifically enumerated in the Convention on the High Seas.

IV. The Third Law of the Sea Conference

In 1970, the General Assembly decided to hold a third conference on the law of the sea, to address many issues relating to ocean space, including a seabed regime, scientific research, pollution, fisheries, the territorial sea, conservation, contiguous zone, and international straits. The Seabed Committee was instructed to draw up an agenda for the Third Law of the Sea Conference; and, because it believed that the ocean issues were so interrelated that they could not be decided separately, it was agreed that issues other than just seabed mining would be addressed. The Seabed Committee met many times between 1970 and 1973 in preparatory sessions in an attempt to prepare draft articles which could be used as a negotiating document at the Conference. The Seabed Committee had divided into 3 subcommittees by 1971, since the issues were becoming complex and the Committee had grown to 91 member nations. The first Subcommittee, which later became Committee I at the Conference, addressed the seabed issues. Subcommittee I, like the others, was not successful in preparing draft articles, but only presented a text addressing the comparative issues of agreement and disagreement, leaving the draft articles to the General Assembly.

A. New York/Caracas Sessions (1973-74). In December, 1973, the first session of the Third Law of the Sea Conference was held in New York. The purpose of this session was to arrive at the rules of procedure to be followed in later sessions. The major considerations were those dealing with voting procedures and credentials of the representatives. Additional informal sessions


35 Id. at 994.
36 See supra note 20, at 12.
37 Id. at 12-13.
38 Id. at 13.
39 Id. at 19.
were required to complete the procedures, and it was not until June 27, 1974 that the Conference agreed to the voting procedures.\textsuperscript{40} The substantive work of the Conference was attempted at the Caracas session, which took place from June 20-August 29, 1974 with 138 nations participating. Unfortunately, very little serious negotiation was conducted at Caracas, as the time was devoted mostly to establishing the respective national positions,\textsuperscript{41} as well as educating the nations that did not participate in the Seabed Committee meetings as to the issues which were to be dealt with at the Conference. Additionally, all nations wanted to participate in the debate which further delayed matters as the Conference sought to reach agreement on a "package deal" which addressed all of the law of the sea provisions, instead of the separate approach followed at the First Law of the Sea Conference. In 1958, the issues were treated separately in four conventions and voted on separately. This "package" approach and the negotiating style, more reminiscent of General Assembly debate on abstract issues, increased the difficulty of reaching a treaty on the hard issues; and, therefore the Caracas session produced very little.\textsuperscript{42}

Nonetheless, Ambassador H. Shirley Amerasighe, President of the Conference, while acknowledging that there had been no agreement on any issue, is reported to have said:

\begin{quote}
We can, however, derive some legislative satisfaction from the thought that most of the issues or most of the key issues have been identified and exhaustively discussed, and the extent and depth of divergence and disagreement on them have become manifest.\textsuperscript{43}
\end{quote}

Some may find comfort in those words, but members of Congress do not. Prior to the Geneva session, the Administration continued to indicate to Congress that agreement was just around the corner.

B. Geneva Session (1975). The plan was that the Geneva session would involve substantive negotiation "that would lead to general agreement on the broad outlines of a new convention, leaving the bones to be fleshed out and the formalities completed at a

\textsuperscript{40}Id. at 20.
\textsuperscript{41}Hatfield, \textit{Law of the Sea Conference — What Course Now?}, 15 \textit{Royal Air Forces Q.} 211 (1975).
\textsuperscript{43}Id. at 6.
short final session in Caracas later in the year.\textsuperscript{44} However, no agreement was reached and the accomplishments of the session can be summed up simply as "more of the same."\textsuperscript{45} One, if not the major, reason for the lack of accomplishment at Caracas and Geneva can be attributed to the lack of a basic document, which is usually drawn up in advance of international conferences, from which negotiations begin:

... but in this case the problem was so highly political that the U.N. Seabed Committee could do little more than agree on the agenda — and that took long enough.\textsuperscript{46}

The Geneva session met from March 17-May 9, 1975, and the first few weeks were spent in attempting to narrow the many varied proposals. There was no progress on major issues as nations were afraid to make concessions until they had an understanding of where the overall "package" of the Conference was headed; nor were countries with mutual interests, but not necessarily views, such as the Group of 77 (now 106 countries), willing to negotiate on issues that had not been agreed upon among themselves.\textsuperscript{47}

As the Conference wore on it became clear that negotiations were not proceeding well and, in fact, had reached a stalemate. It was then agreed that the Chairmen of the main Committees would draft a "single negotiating text," from which future negotiations would develop. However, it was not even agreed that the text would be the negotiating text at the next session, which is scheduled to begin in March of this year in New York, because it was neither voted upon nor presented to the representatives until after the close of the Geneva session.\textsuperscript{48} It is merely "a document prepared by a few (although influential) individuals, for consideration by the Conference."\textsuperscript{49}

C. Proposals for a Seabed Authority: U.S. Position — The position of the United States prior to Geneva was one that included a seabed authority that would be limited to issuing licenses for exploration and exploitation of the resources and general rules relating to the rights and duties of the licensees. It envisioned that all deep seabed mining would be carried on by nations or individ-

\textsuperscript{44} Hatfield, supra note 41.
\textsuperscript{45} Franssen, supra note 42, at 6.
\textsuperscript{46} Hatfield, supra note 41.
\textsuperscript{47} Id. at 212.
\textsuperscript{48} Id.
\textsuperscript{49} Franssen, supra note 42, at 7.
uals, with the applicant paying a license fee of $50,000 entitling him to mine in an area of up to 30,000 square kilometers. The licensing would be on a nondiscriminatory basis, with detailed regulations, expressing the limit of the seabed authority, set out in the Convention document itself.

At Geneva, the position of our Government changed considerably. As an opening position while I was in Geneva, the United States was negotiating a treaty document that would give up our access to 75 percent of the deep seabed minerals to an international authority of an undefined nature. Various concerned members of U.S. executive agencies told me that the land producers of copper and nickel in combination with the so-called Group of 77 wanted to control deep seabed mining through this authority and eliminate or severely circumscribe the industrial nations of the world through the treaty document. The so-called “regime” would set up the authority with machinery divided into three parts which are in effect legislative, executive, and judicial branches. The fear was expressed to me by members of the delegation, a fear which I shared, that the structure of such an authority was being developed that would lead to an international cartel not unlike the coalition of oil producing states that has all but wrecked the economics of the industrialized nations.

The idea of a cartel was not new to the Conference in Geneva as is pointed out by Senator Ernest F. Hollings (D-SC) at a Conference in October, 1974:

Land-based mineral producers spoke loudly in the halls of the Parque Central in Caracas of creating cartels similar to OPEC to control prices and production.

I think it is tragic that our opening position agreed to in the so-called Pinto document (named after C. W. Pinto, the Committee I working group Chairman from Sri Lanka) of April 9, 1975, stipulates that a country or an industrial entity must find two deep seabed tracts in its exploration phase and that both of these tracts be turned over to the international authority. The authority would then decide which of the two tracts it would keep in its so-called “bank” and it would decide which of the two it would give back to the country or entity to mine. Even worse, it would only give back

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50 See supra note 20, at 22.
51 Id.
52 Perspectives on Ocean Policy, Conference on Conflict and Order in Ocean Relations, October 21-24, 1974, at 372 (Nat. Science Found. and Johns Hopkins Univ. 1974).
one-half of the second tract which in effect means 75 percent of the total deep seabed tracts on which an American company, for example, has spent millions of dollars to locate would become the property of the authority for future disposition at its discretion. Certain members of the U.S. delegation were appalled at this proposition, yet it was presented to Committee I of the Law of the Sea Conference and much to no one’s surprise was subjected to severe criticism, including from the Chinese delegation as well as others. When members of our delegation complained that we had given up too much, Caryle E. Maw, Undersecretary for Security Assistance, Department of State, reprimanded one of our delegation stating that “If we are to get a treaty, we must give up more.” I am still trying to determine how much more we can give up, why we should give it up in the first place and why the urgency on the part of the United States to achieve a treaty document. I did not detect the same sense of urgency on the part of other delegations at the Law of the Sea Conference in Geneva.

Nevertheless, this proposal, which was very unpopular among our own delegation and a parallel one by the U.S.S.R., “... [was] rejected by the Group of 77,” according to Ambassador John R. Stevenson, Chief of the U.S. Delegation.53

**Group of 77’s Position.** Prior to Caracas, the Group of 77 developing nations were not able “to agree that the Authority should be allowed” to even contract with private companies to carry out ocean mining.54 However, after realizing that the Authority, at least in the initial stages, would not have the technology itself to carry on deepsea activities, they apparently agree that the Authority can enter into contracts with nations and natural persons, as long as the Authority has “direct and effective control at all times over such activities.”55

Relative to the conditions of exploitation, the Group of 77 would sanction discrimination by the Authority among ocean miners and permit the Authority “to impose arbitrary and unreasonable terms and conditions,”56 upon mining activities.

In addition to the position that the seabed should be explored and exploited only under the specific authorization of the Seabed

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54 *See supra* note 20, at 23.
55 *Id.*
56 *See supra* note 2, at 94.
Authority the Group of 77 also wants the major issues to be decided by the Assembly, made up of all nations that are parties to the Convention, where "they would have control by majority voting."57 The developed countries, including the United States, prefer that this authority be in a council of selected countries representing all interests.

The Pinto text, which as I have mentioned was criticized by members of the U.S. delegation and other nations as giving up too much, and which was rejected by the Group of 77 as not going far enough, was not even included in the "single negotiating text." Rather, Committee I's part of that text clearly favors the Group of 77's position. Even Ambassador Stevenson concedes that the text reflects the views of that group.58 The single negotiating text clearly goes further towards the views of the Group of 77 than did even the Pinto text, which one author said "... gives broad, if not total, satisfaction to developing countries."59 Clearly the present text in the single negotiating document should be rejected by the United States, since the "legitimate interests of the [developed nations] ... are not adequately reflected."60

D. Outlook for LOS III. Ambassador Stevenson has pointed out the lack of success at Geneva in an article written for the *American Journal of International Law*, where he stated:

The second substantive session of the United Nations Conference on the Law of the Sea was held at Geneva from March 26 to May 10, 1975. It was decided at the outset that this would be a negotiating session. There was no general debate. Few formal meetings were held. Even informal working groups of the whole tended to rely on smaller groups the work of which was necessarily removed from public view. Progress, in many respects substantial progress, was made toward producing generally acceptable texts in this way. However, the Conference did not complete the negotiation of a new Law of the Sea Convention or approved texts.61

The progress he referred to was certainly not in the area of the seabed regime, as is evidenced by his post-Geneva testimony before a Senate subcommittee last June, where he said:

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57 See *supra* note 20, at 23.
60 Auger, *Prelude to a Finale Provided by Single Negotiating Text?*, INTERNATIONAL PERSPECTIVES, 36 (July/August 1975).
61 Stevenson and Oxman, *supra* note 58.
Mr. Chairman, it is now clear that the negotiation on the nature of the deep seabed regime and authority is the principal stumbling block to a comprehensive law of the sea treaty.

The basic problem is an ideological gap between those possessing the technological ability to develop deep seabed minerals and those developing countries which insist that the International Authority directly and effectively control all deep seabed mining and associated activities, and ultimately become the exclusive operator on the deep seabed.62

The “ideological gap” referred to will not be easily overcome. It was recently reported that a State Department spokesman, Bernard Oxman, an assistant legal advisor for ocean affairs, said that he believes that the chances of a law of the sea agreement remain in the hands of the developing countries that are prepared to concede more to the technologically advanced nations.63 Yet another writer says that “it is improbable that the Group of 77 will make further concessions” unless the developed nations give in to the broader issues of price stabilization and some undefined “New International Economic Order.”64 In short, the industrialized countries would have to agree with the major provisions of the “single negotiating text”; but, the United States is not likely — for good reason — to agree to that text as it relates to the seabed regime. In fact, Secretary of State Henry Kissinger, in a speech before the American Bar Association’s annual meeting in Montreal last summer, presented the United States’ proposals as to what would be an acceptable seabed regime, and they varied considerably from the “single negotiating text.”

Since the developing and developed nations appear to be considerably apart on the issue of what form the seabed regime should take, it becomes even clearer that no agreement will be reached in the foreseeable future. In fact, “[s]ome well informed observers have said that the earliest date for an agreement is 1978,” and the United States cannot wait that long.65

I wholeheartedly agree, as apparently does our Secretary of State since at Montreal, he said:

The United States cannot indefinitely sacrifice its own interest in developing an assured supply of critical resources to an indefinitely prolonged negotiation . . . (even though a treaty

63 18 OCEAN SCIENCE NEWS No. 2, at 1 (1976).
64 McLin, supra note 59, at 9.
65 Franssen, supra note 42, at 9.
is preferred). We cannot defer our own deep seabed mining for too much longer. In this spirit, we and other potential seabed producers can consider appropriate steps to protect current investment and to insure that this investment is also protected in the treaty.66

Members of Congress could not agree more with the Secretary, and are considering domestic legislation to assure that “protection.”

V. Domestic Legislation

For the last four Congresses, concern has been expressed over seabed mining issues and Members of both Houses have introduced bills addressing the problems. The purpose of the bills was to establish a licensing system whereby U.S. mining companies or individuals could carry out deep seabed mining. It is not intended that the U.S. would claim any right of title or sovereignty rights over the seabed minerals.67 Rather the licensing systems contained in the legislation were intended to guarantee security of tenure for a company as against other U.S. enterprises.68

The first deep seabed mining bill (S. 2801) was introduced by Senator Lee Metcalf (D-MT) on November 2, 1971.69 The House of Representatives followed with an identical bill (H.R. 13904), which was introduced by Congressman Thomas N. Downing (D-VA). The bills sought “to promote the conservation and orderly development of the hard mineral resources of the deep seabed, pending adoption of an international regime.”70

The bills were attacked at the March, 1972, meeting of the U.N. Seabed Committee, primarily by Peru and Chile, whose representatives claimed that the U.S. legislation was contrary to international law.71 In view of the claims by those countries extending their jurisdiction 200 miles from their shores, it seems ironic that they would be the ones to claim that the U.S. proposals violated international law. Furthermore, in view of the discussion, supra, it is clear that the U.S. legislation is not contrary to customary international law.

Hearings were held on the bills by the House Merchant Marine and Fisheries Committee and the Senate Committee on Interior and Insular Affairs. Neither committee took action on their re-

67 See supra note 52, at 264.
68 Id.
69 See supra note 2, at 64.
70 Id.
spective bills beyond the hearing stage, reportedly because of the environmental concern raised over the possible adverse impact upon the ocean environment from deep seabed mining.\footnote{Id. at 68.}

In the 93rd Congress, identical bills (H.R. 9 and S. 1134) were again introduced in both Houses of Congress. The Administration, as it did in the 92nd Congress, expressed concern over the pending legislation. It continued to argue that the Law of the Sea negotiations were at "a critical stage," and individual nations should avoid the appearance, through domestic legislation, of defying the multilateral treaty approach.\footnote{Id. at 70.} However, the Administration through Mr. Charles N. Brower, Acting Legal Adviser and Acting Chairman, Inter-Agency Task Force on the Law of the Sea, in a letter to Senator Henry M. Jackson on March 1, 1973, said that the Administration would not propose, nor support, domestic legislation unless a "timely and successful" conference could not be obtained. He explained "timely and successful" to mean a conference "opened for signature in 1974 or, at the latest, in 1975,"\footnote{Id. at 122.} and the summer of 1975 at that. It is now the winter of 1976 with no end of the negotiations in sight.

Nonetheless, in the second session of the 93rd Congress, amendments were made to the bills which, \textit{inter alia}, changed the effective date of the proposed legislation to January 1, 1976, to allow time for an international agreement to be reached. Other amendment provisions introduced in January, 1974, included the raising of the license fee from $5,000 to $50,000; reducing the term of the lease; elimination of the escrow fund which would have provided assistance to developing nations; and requiring separate applications for exploration and commercial recovery.\footnote{Id. at 78.}

Following hearings on the revised S.1134, the Senate Interior and Insular Affairs Committee reported the bill to the floor; but, it was subsequently referred to the Foreign Relations Committee, and no further action occurred in that Congress. H.R. 9 did not emerge from Committee.

The bills were reintroduced in the 94th Congress, again by Representative Downing (H.R.1270) and Senator Metcalf (S.713), and these bills are pending at the present time. The major provisions of H.R.1270 (Deep Seabed Hard Minerals Act) are very similar to the version reported out of the Senate Interior Commit-
tee in the previous Congress. It authorizes the Secretary of the Interior to grant licenses for 15 years for a block (not more than 40,000 square kilometers in size), to the first eligible applicant who submits a written application and tenders a $50,000 fee. The Secretary must determine prior to issuance of a license that the applicant is financially responsible; that the operations will not unreasonably interfere with other uses of the high seas; that the issuance will not interfere with other international obligations of the U.S.; and that the license will not unreasonably interfere with the integrity of the marine environment. In no event will the Act become effective prior to January 1, 1976 (which, of course, has already passed). No licenses may be issued under this Act subsequent to the ratification by the United States of an international agreement establishing a seabed regime; and existing licenses shall become subject to such international agreement. Further, it requires the United States Government to provide an investment guaranty to a licensee, with compensation representing the reduction in value of the investment resulting from the differing requirements; and to provide, where no other reasonable insurance is available, investment insurance but not exceeding the value of the investment.

Although I certainly endorse the legislation in principle as it is set forth in H.R.1270, I have introduced a bill which differs slightly from previous legislation dealing with deep seabed mining. H.R.11879, which I introduced on February 11, 1976, includes the following changes:

** Regulatory authority is vested in the Secretary of Commerce instead of the Secretary of the Interior.

** A provision to permit the Secretary of Commerce to request and receive comprehensive data from industry when licenses are issued has been added. We learned a lesson in the energy crisis last winter. The government did not have adequate reliable data on resources and this change will ensure no such information gap with respect to deep seabed resources.

** My bill fosters and encourages the negotiation of harmonious laws, rules and regulations with those other countries who are ready to exploit the seabed. It grants legal recognition to rights they confer on their nationals provided they recognize the rights we confer on our nationals.

This legislation, I am convinced, will strengthen the hand of U.S. negotiators by demonstrating to the lesser developed countries that the United States is serious about exploiting its technological lead
and will ensure our access to secure sources of minerals vital to our economic well-being.

It is my belief that the United States should wait no longer to protect its interests in seabed mining and should enact legislation now. It was reported recently that “the White House has softened its insistence that the U.S. wait until the Conference is over before taking any unilateral action.”

Incidentally, Mr. Carlson of the State Department admitted last April at a Senate hearing that the Administration had prepared draft legislation of its own.

VI. Conclusion

It is an established fact that American companies have attained the technological expertise necessary to economically mine the estimated $3 trillion worth of manganese nodules located in and on the deep seabeds of the world oceans. Although the companies in various forums have clearly demonstrated their capability and willingness to proceed into this new era of man’s achievements, they are justifiably reluctant to do so in view of the political and legal climate that exists today. Without some form of protection from possible investment loss and the resulting economic disaster for their companies, it is not surprising that they have not invested the large sums which will be necessary to mine the deep seabed resources.

The primary objective of the United States should not be to assure profits for these mining companies; but rather to ensure that it maintains secure sources of minerals needed for the economic well-being of its people, as well as preventing a situation similar to the OPEC cartel from occurring in the area of hard minerals.

There seems little doubt among knowledgeable international jurists that deep seabed mining is currently authorized under international law; and that the Moratorium Resolution of 1969 and the Declaration of Principles in 1970, have no legal effect in altering this view. Although the efforts of the Third Law of the Sea Conference in arriving at a seabed regime are commendable in concept, in practice the efforts have proven to be a dismal failure with no hopeful outlook in sight. Yet, domestic legislation would not foreclose a future international agreement, and would, in the interim, aid in the recovery of seabed minerals which might otherwise be lost. Apparently, the Administration itself realizes this

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77 See supra note 10, at 3.
fact. Congress certainly does, and as Chairman of the Oceanography Subcommittee, I intend to advance the prospects for such legislation by holding hearings and hopefully reporting a bill to the full House of Representatives by spring of this year.