

The Politics of Manganese Nodules: International Considerations and Domestic Legislation

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The legal regime governing the recovery of deep seabed minerals may be the most difficult issue now confronting the United Nations Conference on the Law of the Sea. Congressman Murphy discusses unilateral legislation, concluding that it would be fully consonant with prevailing international law and that it would act as a spur to the negotiations of the Conference. He analyzes the Deep Seabed Mining bill in the contexts of the international legal system and the Law of the Sea Conference and urges the United States to enact the bill so that exploration and commercial recovery may proceed.

On September 15, 1978, the curtain came down on the Seventh Session of the Third United Nations Conference on the Law of the Sea (UNCLOS III). The Seventh Session ended on a note that

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combined disappointment and hope—disappointment that the nations of the world had not reached full agreement on a new Law of the Sea; hope that the next session, to be held in Geneva in the spring of 1979,¹ will make major progress toward resolution of the differences that now separate the negotiating nations.

The Third United Nations Conference is now five years old and has produced conditional agreement on a wide range of issues. The nations of the world have, in general, resolved most of their differences on such issues as a regime for protection of the marine environment, preservation of the freedom of the high seas for traditional uses like navigation and the laying of undersea cables and pipelines, the right of transit through straits and archipelagic waters, and the establishment of an oceanic economic zone for coastal States. However, some important issues remain unsettled. The condition for agreement on these matters is the successful conclusion of negotiations on the Conference's most difficult and intractable issue: the establishment of a regime for deep seabed mining.

Ocean mining has been seriously debated since the earliest preparatory work of the Conference, but the parties—essentially, the developed world on the one hand and the developing nations² on the other—remain almost as far apart as ever. The issue is probably the single largest constraint in the way of final agreement on a new Law of the Sea, and the rift between the developed and de-

1. Informal discussions among the UNCLOS delegates indicate the probability of a follow-up session in New York at the end of summer, 1979.

2. Various named the Third World or the "Group of 77" (G-77), these countries now total some 119 nations. The "G-77" nomenclature emerged from the Second Session of UNCLOS III in Caracas in 1974. Although far from cohesive on many specific matters, the G-77 has articulated a viewpoint of developing nations with respect to most of the issues at the Conference. It is organized into a series of subcommittees and caucuses to reach, in most cases, a single position.

To cast the deep seabed mining issue as being totally within a bi-polar dialogue between the developing and developed nations is clearly an oversimplification. The Soviet Union, for example, supports the Third World on some seabed issues. Within the G-77, positions reflect various stages of development, and political ideologies range from moderate to militant. Perceived interests among the approximately 50 participating nations vary considerably. However, UNCLOS III works by a process of "consensus"—no votes have been taken on any Article or provision, and none will be until the possibilities of consensus have been exhausted. This process tends to result in dichotomization of conceptual issues. Empirical analysis of blocs and cleavages at the Conference will be more easily facilitated when, and if, actual votes on specific treaty language occur. Although much of the debate has focused on proposed negotiating text language (*see* text accompanying notes 24-28 *infra*), the consensus format makes attributions of individual nations' positions on specific language impracticable and, thus, "bloc-analysis" impossible. This article focuses on the general political, philosophical, and conceptual processes at the Conference; the developing-developed division is useful because it reflects this level of debate.

veloping nations threatens to bring UNCLOS III to an inconsequential end.

In the last year or two, the argument has been advanced that the basic interest of the United States would not suffer if the Conference failed to reach agreement on a treaty.³ But the United States, which was one of the moving forces behind the convening of UNCLOS III, remains committed to the concept of a new, comprehensive, and global Law of the Sea Convention. Many, both within and outside the Congress, feel that those who are advocates for unilateral action on the part of the United States with respect to ocean mining legislation are, in reality, opposed to a successful UNCLOS III. Nothing is further from the truth. Domestic legislation, at this time, is not incompatible with an international agreement and may actually "spur" such an agreement. Most observers agree that it is important that the United States continue to seek agreement on a treaty—not only for the sake of its substantive provisions, but also for purposes of international comity.

DEEP OCEAN MINERALS: MARKETS AND PRICES

Why has deep seabed mining become the primary obstacle to a successful UNCLOS III? For some time, the world has known that the deep seabed is rich in hard minerals—primarily manganese, iron, nickel, copper, and cobalt, but also lesser amounts of other minerals.⁴ These minerals are contained in nodules on the floor of the seabed, generally at depths greater than 2,000 meters. The present estimate is that there are at least 1.5 trillion tons of these nodules, most of them lying on the floor of the Pacific Ocean. Until recently, they were regarded as beyond the reach of commercial mining operations because of the ocean depths involved. But modern technology has now made them accessible. Over the past decade, the mining industry has moved toward an economically feasible capability to mine the hard minerals of the deep seabed. This developing technology has made the prospect of deep seabed mining on a commercial scale an imminent reality.

3. This assessment is best stated in Darman, *The Law of the Sea: Rethinking U.S. Interests*, 56 FOREIGN AFF. 373 (1977).

4. In all, some 31 mineral elements have been found in manganese nodules. See Cardwell, *Extractive Metallurgy of Ocean Nodules*, MINING CONGRESS J., Nov., 1973, at 38.

For the United States, four minerals—manganese, cobalt, nickel, and copper—have an immediate strategic and economic importance. They are vital to American industry. Manganese is an essential element in the production of steel, and cobalt and nickel are important in the manufacture of many critical alloys. Copper, of course, has a wide range of significant uses. At the present time, the United States is dependent on foreign sources for much of these minerals. It now imports all the manganese and cobalt it consumes, seventy-one percent of the nickel, and fifteen percent of the copper. Additionally, imports make a sizeable contribution to the present deficit in the American balance of payments. In 1976, the United States paid \$1.5 billion to foreign sources for the importation of these four minerals.⁵

This dependence on foreign suppliers for critical minerals places the United States' national economy and security in a position of considerable risk. The risk is compounded by the fragility of some of the sources. More than three-quarters of the cobalt consumed by the United States comes from a single African nation—Zaire, a country that in recent years has been beset by civil unrest and outbreaks of armed conflict. It is a condition that always threatens the stability of production. Production can also be disrupted by artificial market forces. Although it may be uncertain whether the producing countries of any of the four minerals could form a cartel on the OPEC model,⁶ some evidence exists that prices reflect more than normal market forces—that, in fact, they are administered. The prices of manganese and cobalt, for example, have risen markedly since 1970,⁷ far outstripping the rise in mining costs. With administered prices come short-term shortages that interrupt the steady flow of minerals on which the

5. In many respects, the most important elements are manganese and cobalt, of which the United States has no domestic supply. With respect to nickel, the United States has only one small exploitable deposit—a source that is able to supply only a small proportion of its total nickel needs.

6. Economic theorists continue to argue about a proper specification of the conditions under which cartels can emerge. Yet, it must be recognized that the OPEC embargo of 1973 was not predicted. This lack of predictability leads to the inescapable conclusion that the assumption of cartelization would be a rational and reasonable basis on which to structure future resources policies for the United States.

7. Even before the recent tragedies in Zaire, the necessity of depending on a quasi-monopolistic supply for an essential metal illustrates the serious consequences for world consumers. Since 1970, manganese prices have increased some 170%. During this same period, cobalt has gone from \$2.45 to \$20.00 per pound—an increase of 716%. The overall United States economy during these years, as indicated by Department of Commerce GNP price data, experienced a 46% inflation rate. HOUSE COMM. ON MERCHANT MARINE AND FISHERIES, REPORT ON DEEP SEABED HARD MINERALS ACT, H.R. REP. NO. 588 pt. 1, 95th Cong., 1st Sess. 18 (1977).

industrialized nations rely. If stockpiles are low, the repercussions can be severe.

For the United States and for other nations, the development of deep seabed mining is crucial. If a satisfactory legal regime can be developed, it will ensure a continuous and stable supply of manganese, cobalt, nickel, and copper. The short-term implications are clear: The threat of shortages during critical periods will vanish, and a national market for the setting of world prices will come into being. Also, looking ahead, it is clear that the deep seabed may become the world's major source of supply for manganese, cobalt, and nickel—with a supply that will be sufficient to meet the world's needs for the foreseeable future.

INTERNATIONAL LAW AND THE DEEP SEABED

For the Group of 77 (G-77), the hard minerals of the deep seabed are important not so much for their own sake but rather as a new source—and a vast one—of incremental wealth. These States are concerned that the United States and other industrialized countries developing ocean mining technology will begin the commercial-recovery stage of the operation before they can lock the developed world into a certain type of regime for the management of the deep seabed.⁸ They argue vigorously that the status of international law today with respect to the resources of the seabed precludes any nation from recovering the manganese nodules in the absence of a global agreement.

The most compelling legal arguments, however, are made on behalf of those who support deep seabed resource development for any nation with the capability to recover such resources commercially. Although this article is not intended to present a definitive legal analysis of the status of international law on this subject, it is important to outline briefly the premises on which the United States' position is based because these same premises form the foundation of its domestic ocean mining legislation.

Juridical Status of the Seabed

Prior to the development of the continental shelf doctrine,⁹ in-

8. Some general aspects of the regime advocated by the G-77 will be discussed below.

9. *Codified in Convention on the Continental Shelf, done Apr. 29, 1958, [1964] 15 U.S.T. 471, T.I.A.S. No. 5578, 499 U.N.T.S. 311.*

ternational law made no distinction between the continental shelf and the deep seabed. The prior customary international law, then, treated all the resources of submerged lands beyond the territorial sea as being open to any nation to exploit.¹⁰ With the 1958 Geneva codification and emergence of a rule of customary law, these resources remained subject to exclusive national appropriation under the continental shelf regime. With respect to resources beyond the shelf not covered by the Geneva Convention, prior customary international law remains in effect. The deep seabed and superjacent waters are a juridical unity. Consequently, the resources of the seabed beyond the continental shelf, such as manganese nodules, are available for development by any nation.

The Freedom of the High Seas

Under Article 2 of the Geneva High Seas Convention,¹¹ which is generally declaratory of principles of international law, the development of deep seabed resources is a freedom of the high seas. Article 2 provides:

The high seas being open to all nations, no State may validly purport to subject any part of them to its sovereignty. Freedom of the high seas is exercised under the conditions laid down by these articles and by the other rules of international law. It comprises, *inter alia*, both for coastal and non-coastal States:

- (1) Freedom of navigation;
- (2) Freedom of fishing;
- (3) Freedom to lay submarine cables and pipelines;
- (4) Freedom to fly over the high seas.

These freedoms, and others which are recognized by the general principles 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.

Although not specifically mentioned, other freedoms are encompassed by Article 2. These include the freedom to develop manganese resources of the deep seabed, as the legislative history of the

10. One juridical theory was that the seabed and its resources were *res nullius*, or the property of no one, and therefore subject to appropriation on the basis of occupation—that is, use pursuant to legal claim and national administration. T. FULTON, *THE SOVEREIGNTY OF THE SEA* 696-98 (1911); Hurst, *Whose is the Bed of the Sea?*, [1923-24] 4 *BRIT. Y.B. INT'L L.* 33, 42-43 (1923); Young, *The Legal Regime of the Deep-Sea Floor*, 62 *AM. J. INT'L L.* 641, 644-45 (1968). A competing theory was that the seabed was *res communis*, or not subject to exclusive appropriation. Under this theory, resources were *res nullius* and could be exploited by anyone if not under claim of exclusive rights. I. BROWNLIE, *PRINCIPLES OF PUBLIC INTERNATIONAL LAW* 229 (2d ed. 1973); C. COLOMBOS, *THE INTERNATIONAL LAW OF THE SEA* § 81 (6th rev. ed. 1967).

11. *Done* Apr. 29, 1958, [1962] 13 *U.S.T.* 2312, *T.I.A.S.* No. 5200, 450 *U.N.T.S.* 82. This treaty is in force for the United States and for most other key countries.

Convention clearly shows.¹² That the listed freedoms of the high seas are nonexclusive and that seabed mining is within the scope of Article 2 is supported by the following:

First, the phrase "[t]hese freedoms, *and others which are recognized by the general principles of international law*," in conjunction with the discussion regarding prior customary international law,¹³ indicates quite clearly that access to the resources of the deep seabed is covered by the general principles of international law.

Second, the International Law Commission (ILC) travaux préparatoires from 1955 associated with Article 2 state *inter alia*:

The list of freedoms of the high seas contained in this article is not restrictive; the Commission has merely specified four of the main freedoms. It is aware that there are other freedoms, such as freedom to explore or exploit the subsoil of the high seas and freedom to engage in scientific research therein. It is evident that in the high seas covering a continental shelf the latter freedoms can only be exercised subject to any rights over that shelf which the coastal State can invoke. The Commission did not study this problem in detail at the seventh session.¹⁴

In its report a year later, the ILC stated, with respect to the absence of reference to deep seabed minerals, that:

The Commission has not made specific mention of the freedom to explore or exploit the subsoil of the high seas. It considered that apart from the case of the exploitation or exploration of the soil or subsoil of a continental shelf . . . such exploitation has not yet assumed sufficient practical im-

12. 6 UNCLOS I OR, C.4 (18th mtg.) 45, 45, U.N. Doc. A/Conf. 13/42 (1958); *id.* (17th mtg.) 40, 43; *id.* (16th mtg.) 38, 38; *id.* (15th mtg.) 35, 37; *id.* (12th mtg.) 26, 31; *id.* (6th mtg.) 7, 7, 8; Report of the International Law Commission to the General Assembly, 11 U.N. GAOR, Supp. (No. 9) 24, art. 27 commentary, U.N. Doc. A/3159 (1956), *reprinted in* [1956] 2 Y.B. INT'L L. COMM'N 253, 278, U.N. Doc. A/CN.4/SER.A/1956/Add. 1 (1957); Report of the International Law Commission to the General Assembly, 10 U.N. GAOR, Supp. (No. 9) 3, art. 2 commentary, U.N. Doc. A/2934 (1955), *reprinted in* [1955] 2 Y.B. INT'L L. COMM'N 19, 21, U.N. Doc. A/CN.4/SER.A/1955/Add. 1 (1960); Summary Records of the 329th Meeting, [1955] 1 Y.B. INT'L L. COMM'N 279, 282-83, U.N. Doc. A/CN.4/SER.A/1955 (1960); Summary Records of the 326th Meeting, [1955] 1 Y.B. INT'L L. COMM'N 261, 263, U.N. Doc. A/CN.4/SER.A/1955 (1960); Summary Records of the 320th Meeting, [1955] 1 Y.B. INT'L L. COMM'N 220, 222, U.N. Doc. A/CN.4/SER.A/1955 (1960); Summary Records of the 113th Meeting, [1951] 1 Y.B. INT'L L. COMM'N 266, 269, U.N. Doc. A/CN.4/SER.A/1951 (1957); Summary Records of the 67th Meeting, [1950] 1 Y.B. INT'L L. COMM'N 216, 222, U.N. Doc. A/CN.4/SER.A/1950 (1958). For a full discussion, see T. KRONMILLER, *THE LAWFULNESS OF DEEP SEABED MINING* ch. 4 (in process).

13. See text accompanying notes 8-12 *supra*.

14. Report of the International Law Commission to the General Assembly, 10 U.N. GAOR, Supp. (No. 9) 3, art. 2 commentary, U.N. Doc. A/2934 (1955), *reprinted in* [1955] 2 Y.B. INT'L L. COMM'N 19, 21, U.N. Doc. A/CN.4/SER.A/1955/Add. 1 (1960).

portance to justify special regulation.¹⁵

It is clear, then, that the ILC recognized deep seabed resource exploitation as a high seas freedom. Its failure to be specific resulted from nothing more than the fact that such activity had "not yet assumed sufficient practical importance to justify special regulation."

The developing nations argue that the freedoms of the high seas do not extend to the seabed beyond national territorial limits—that there has never been a right under international law to exploit the deep seabed. The position of the G-77 has a negative premise: that there is neither a precedent in international law for unilateral access to the deep seabed nor a treaty expressly conferring on individual nations a right of such access. Because of its negative premise, it seems more a political than a legal argument. There is nothing to support the view of the G-77 that the traditional freedoms of the high seas do not extend to the resources of the deep seabed.

United Nations Resolutions

Finally, it must be noted that the developing nations also argue that, whatever the pre-existing rule of international law, the right of an individual nation to engage in deep seabed mining is now limited by actions taken by the nations of the world within the General Assembly of the United Nations.

In an earlier phase of this debate, the G-77 relied, in part, on the so-called Moratorium Resolution. This resolution was adopted by the General Assembly by a vote of sixty-two to twenty-eight, with twenty-eight abstentions, on December 15, 1969. In relevant part, it provides that:

The General Assembly,

.....

Declares that, pending the establishment of the aforementioned international 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.¹⁶

The United States and other industrial nations cast their votes against the resolution. They did so because of the obvious impli-

15. Report of the International Law Commission to the General Assembly, 11 U.N. GAOR, Supp. (No. 9) 24, art. 27 commentary (2), U.N. Doc. A/3159 (1956), reprinted in [1956] 2 Y.B. INT'L L. COMM'N 253, 278, U.N. Doc. A/CN.4/SER.A/1956/Add. 1 (1957).

16. G.A. Res. 2574, 24 U.N. GAOR, Supp. (No. 30) 11, U.N. Doc. A/7630 (1969).

cations of the resolution—that the industrial world might have to accept an unsatisfactory international regime on deep seabed mining in order to commence or participate in some type of mining operations or refrain indefinitely from all such activity. Either outcome would run counter to the essential interests of nations and companies that have taken major risks to develop seabed technology.

In the past, the G-77 has advanced the view that the Moratorium Resolution created a binding legal obligation on all States. The answer of the United States was that it never assented to the resolution and that its rights under international law could not be modified without its consent. Moreover, by itself, a resolution of the United Nations General Assembly has no binding effect in international law.¹⁷ The answer has apparently been largely effective. At the closing of the Seventh Session of UNCLOS III, the G-77, in attacking the concept of unilateral deep seabed mining legislation, made little mention of the Moratorium Resolution.

The Third World's legal argument against deep seabed mining is now based almost exclusively on the so-called Declaration of Principles. This statement was adopted by the General Assembly on December 17, 1970, by a vote of 108 to 0 with 14 abstentions. The United States voted in favor of the Declaration, which states in relevant part that:

The General Assembly,

. . . .

Solemnly declares that:

1. The sea-bed and ocean floor, and the subsoil thereof, beyond the limits of national jurisdiction (hereinafter referred to as the area), as well as the resources of the area, are the common heritage of mankind.
2. The area shall not be subject to appropriation by any means by States or persons, natural or juridical, and no State shall claim or exercise sovereignty or sovereign rights over any part thereof.
3. No State or person, natural or juridical, shall claim, exercise or acquire rights with respect to the area or its resources incompatible with the international régime to be established and the principles of this Declaration.
4. All activities regarding the exploration and exploitation of the resources of the area and other related activities shall be governed by the international régime to be established.

. . . .

7. The exploration of the area and the exploitation of its resources shall be carried out for the benefit of mankind as a whole, irrespective of

17. W. BISHOP, *INTERNATIONAL LAW* 46-51 (3d ed. 1971); Gross, *The Development of International Law Through the United Nations*, in *THE UNITED NATIONS* 171, 198-203 (J. Barros ed. 1972).

the geographical location of States, whether land-locked or coastal, and taking into particular consideration the interests and needs of the developing countries.

9. On the basis of the principles of this Declaration, an international régime applying to the area and its resources and including appropriate international machinery to give effect to its provisions shall be established by an international treaty of a universal character, generally agreed upon. The régime shall, *inter alia*, provide for the orderly and safe development and rational management of the area and its resources and for expanding opportunities in the use thereof, and ensure the equitable sharing by States in the benefits derived therefrom, taking into particular consideration the interests and needs of the developing countries, whether land-locked or coastal.¹⁸

What do these words mean? What was intended by the assenting nations? What is the legal status of the Declaration and the principles it embodies?

The language of the Declaration of Principles is filled with generalities and ambiguities, and the history of its formulation makes it clear that such uncertainties were purposeful. They were designed to obscure the differences among the nations of the world—to permit each party to the Declaration to interpret it in accordance with its political and legal position. The language of the Declaration is, as a result, far from clear, but it was accepted by the assenting nations as a compromise. The irony is that this language, which was fashioned to permit the developed and the developing nations to preserve their positions, has been seized upon by the G-77 as the primary basis of its view that no State may unilaterally develop the resources of the deep seabed.

The parties to the Declaration agree on one thing—that it represents their commitment to work out an international regime for ocean mining. But the G-77 goes much further. Its position is that the Declaration itself established a moratorium on mining, pending the new regime. However, for the United States and the rest of the developed world, the Declaration was not intended to create a moratorium. It did no more than set out the significant principles that should govern a future regime. The United States expressed this view when it voted for the Declaration, and it continues to regard the view of the G-77 as an interpretation that did not have universal support when the Declaration came into being. The history of the Declaration supports the position of the United States. In any event, like other similar resolutions, the Declaration was not lawmaking.¹⁹

The G-77 makes much of the term “the common heritage of

18. G.A. Res. 2749, 25 U.N. GAOR, Supp. (No. 28) 24, U.N. Doc. A/8097 (1970).

19. See MANUAL OF PUBLIC INTERNATIONAL LAW 160-61 (M. Sprensen ed. 1968); Sloan, *The Binding Force of a 'Recommendation' of the General Assembly of the United Nations*, [1948] 25 BRIT. Y.B. INT'L L. 1 (1962).

mankind." It takes the view that the term connotes collective ownership of the resources of the deep seabed—that they are the common property of all nations and can be exploited only with universal consent. At the time of adoption of the Declaration, the term had no legal definition, and there was no universal agreement on its meaning when the Declaration was formulated. The United States has always regarded it as a concept for which a legal meaning would emerge in the course of UNCLOS III negotiations and be legally defined in the text of any treaty that resulted from those negotiations.

In general, then, the position of the United States (both in its diplomatic negotiations at UNCLOS and as a premise for domestic ocean mining legislation) is that access to the deep seabed and the opportunity to recover commercially resources from it is a freedom of the high seas. All nations, under existing law, have a right to exercise this freedom subject only to the restriction that there be no unreasonable interference with the exercise of high seas freedoms by other nations. Commitments to the establishment of an international regime for the management of the area and its resources have been made, but in the interim, no moratorium exists or was intended.

After an exhaustive review of international law on this subject, one observer recently stated:

Substantial authoritative evidence, bolstered by an analysis of the function of international law, supports the application of high seas principles to deep seabed mining. Thus, mining of the deep seabed with reasonable regard for others is lawful, but exclusive mining claims . . . are not

. . . [H]igh seas principles indicate that deep seabed mining is legal even now and will continue to be legal if the current Law of the Sea Conference fails.²⁰

Conversely, taken as a whole, the legal arguments made by the G-77 are weak and without substance. They are based on a view of traditional international law that has no basis in history, on a resolution of the United Nations General Assembly to which the United States did not assent, and on an interpretation of another resolution that was deliberately drafted so that it would not prejudice the positions of the interested parties.

20. Burton, *Freedom of the Seas: International Law Applicable to Deep Seabed Mining Claims*, 29 STAN. L. REV. 1135, 1180 (1977).

AN INTERNATIONAL REGIME: DIFFERENT PERCEPTIONS AT UNCLOS III

The years of debate at UNCLOS III about an acceptable structure for the control of the deep seabed represents the Conference's own very important version of the North-South dialogue. The philosophical underpinnings of the Third World's theory of a "New International Economic Order"²¹ are the basis of discussion regarding the development of deep ocean minerals. The unique dimension of this dialogue at UNCLOS III is, of course, that the negotiations are focused on the resources of an area of the earth which is beyond the jurisdiction of any nation. Consequently, the UNCLOS III debate does not emphasize such matters as increased trade, underwriting Third World projects, loans, grants, or the type of terms normally associated with the World Bank or the International Monetary Fund.

Rather, the establishment of an international regime for the exploitation of deep seabed minerals represents a singular effort not found in other world fora. If widespread agreement can be reached with respect to the creation of an International Seabed Authority and the necessary administrative and operational machinery that will be required to implement such a structure, it will undoubtedly form a strong precedent for future worldwide institution-building to deal with the complex problems of resource scarcity in a high technology era. The implications of this possibility are, of course, enormous, and they argue strongly for a United States position based on a careful balance between our international obligations as a world power and our fundamental economic interests.

Clearly, an explanation of the continuing struggle at the Conference with respect to ocean mining is multi-dimensional. The difficult issues to be resolved, the structure of the Conference, the personality clashes, and the protective position of land-based mineral producers (within the G-77) have all contributed to the present stalemate.

Perhaps the two primary explanatory variables are: (1) the

21. Perhaps the best analysis of the relationship between the emergence, in the 1960's and 1970's, of resource and other wealth-distribution questions contained in the concept of a New International Economic Order and UNCLOS III is found in Friedheim & Durch, *The International Seabed Resources Agency Negotiations and the New International Economic Order* (paper prepared for delivery at the 1976 Annual Meeting of the American Political Science Association, Chicago, Illinois, September 2-5, 1976). The researchers were then associated with the Center for Naval Analyses, which is affiliated with the University of Rochester. Their analytical and forecasting models, which predicted continued "stalemate" at UNCLOS III, have been remarkably accurate.

radically different economic ideologies between the industrial nations that are developing mining technology and the developing world, and (2) a feeling on the part of most nations at the Conference—a feeling which has developed into an important strategic position—that the industrial world will continue to delay full-scale deep seabed mining activities until UNCLOS III has reached a successful conclusion.

With respect to the different ideologies represented at the Conference, it would be misleading to categorize the struggle as one between capitalism and socialism. Each country has a different economic mix, including those within the “industrial bloc,” and positions on any given issue are based on a myriad of factors.

Yet, in a general but critically important way, there is a significant difference in the premises on which each large group at the Conference views the “politics of manganese nodules.” The Third World, based on the political strategy contained in the concept of the “New International Economic Order,” calls for the redistribution of the world’s wealth with significant transference of resources from the developed to the developing world. Certainly, the distribution of the resources of the deep seabed is a key international issue in this dialogue.

The industrialized nations, in general, accept the premise that one shares in the benefits of society largely to the extent that one shares in the cost. Not only is this considered fair, but it is the way that a nation improves its standard of living—by investing in ventures today that will lead to increased national wealth tomorrow. One important dimension of this premise is that most investment decisions and risk-taking is done by the private sector of the economy.²²

The need for large amounts of capital to be provided by investment companies and the need for positive decisions to proceed with development of commercial-recovery technology both are private, corporate decisions. Such decisions, involving hundreds of millions of dollars for each company, are made carefully and

22. This is not to deny that in each industrialized country pursuing deep seabed mining technology there are many levels of formal and informal subsidies to companies to encourage their continued participation in this high-risk venture. The major exception to this situation is the United States, in which no ocean mining policy exists and no effective governmental support is provided. Even the application of normal tax “incentives” for new investments and depletion allowances to ocean mining is uncertain and will require legislative clarification.

only with the high probability of a reasonable return on the investment. Certainly, the recovery of manganese nodules from 15,000 to 20,000 feet down in the ocean presents enormous risks—as does the uncertainty of the minerals market at any given point in time. These are normal technological and economic risks on which corporations are able to make some predictive judgments.

However, to make a commitment of capital, labor, and technology to a resource-development venture and then to discover that one does not have access to that resource or must operate under the most unreasonable terms and conditions is intolerable. The possibility that such changes in the “rules of the game” may occur, of course, will severely constrain investment and development decisions in the first instance.

The goals of the developed and developing countries at UNCLOS III with respect to the deep seabed issue are, therefore, fundamentally different.

The G-77 advocates the establishment of a unitary structure for the control and management of seabed development. The membership of the governing unit of the structure, the International Seabed Authority, would be based on a one nation, one vote scheme and, thus, would be controlled by the numerically superior developing world.

The position of the United States on deep seabed mining is relatively simple. It wants the mineral resources of the deep seabed developed rapidly and efficiently with due regard to the protection of the marine environment and to the interests of other nations. It is important that individual States, and organizations sponsored by States, should have non-discriminatory and assured access to mining sites, with security of tenure. This view reflects the United States’ awareness that rapid and efficient development of the mineral resources of the deep seabed will require the participation of the private mining industry,²³ which has developed the technological capability for the task at a considerable cost.

The industry has already spent \$150 to \$200 million on research and development. The present estimate is that when ocean mining becomes operational, the cost of commercial recovery and processing will range between \$500 and \$700 million per site. In other words, the total cost for four consortia, each operating on one site, could be as much as \$2.8 billion.

23. At present, the “industry” is composed of a small number of international consortia, some United States-led. In all, about six countries have an interest in one or more of these consortia.

Because such substantial sums are involved, it is the United States' view that any international regime for deep seabed mining must create a climate conducive to large private investment. Without such a climate, private investment capital will probably seek other and very different outlets. At the same time, the United States believes that the developing world should be afforded a meaningful opportunity to reap a just share of the benefits of the resources of the seabed—by participating in mining and through revenue-sharing.

To accommodate these various goals, the United States has agreed to the establishment of an International Seabed Authority for deep seabed mining, composed of all the parties to the treaty, which would serve as an umbrella for parallel mining systems. One side would comprise the mining operations of individual States or organizations sponsored by States, the other would conduct the operations of the international mining Enterprise of the Authority. Each operator on the State/private enterprise side would identify two sites, one of which would be reserved to the Enterprise. The latter could be "banked" for exploitation at a later time.

With respect to the resources themselves, this system is quite workable in the sense that there are ample opportunities for all who may wish to mine in a regime of parallel access. The hard mineral deposits of the deep seabed are sufficiently vast and sufficiently dispersed to support mining operations by multiple parties.

The framework of the parallel system first surfaced in treaty language in the Revised Single Negotiating Text (RSNT),²⁴ which emerged from the 1976 Spring Session in New York. The more militant members of the G-77 criticized the document as a "sellout" to the United States and demanded a return to the more unitary approach in the prior Informal Single Negotiating Text (ISNT).²⁵ However, at that point in time, the parallel system was at least negotiable.²⁶

24. U.N. Doc. A/Conf. 62/WP. 8/Rev. 1, *reprinted in* 5 UNCLoS III OR 125 (1976).

25. U.N. Doc. A/Conf. 62/WP. 8, *reprinted in* 4 UNCLoS III OR 137, and in 14 INT'L LEGAL MATERIALS 689 (1975).

26. "Negotiability" was undoubtedly enhanced by major concessions offered by then Secretary of State Kissinger when he visited the Sixth Session. His proposals involved United States assistance in financing the Enterprise, a review after 25 years, and the transfer of technology to the Authority.

Shortly after his appointment by President Carter as our Law of the Sea Ambassador, and prior to the opening of the Sixth Session of UNCLOS III, Elliot L. Richardson indicated that any tentative agreements which may have been reached at that time emerged from a realization that there is no effective way in which seabed resources can be exploited for the general benefit of mankind unless there is a practical means of drawing on the technology and the capital resources of the mining consortia that have developed deep seabed mining capability.²⁷

Unfortunately, if such a realization were evident then, it failed to persist through the Sixth and Seventh Sessions of UNCLOS III. The formal and informal discussions during the last two years and the language of the present basis for negotiation, the Informal Composite Negotiating Text (ICNT),²⁸ clearly show that the concept of an assured, non-discriminatory, equitable parallel access system has been seriously eroded. Interestingly, the Kissinger-proposed measures on financing the Enterprise, on the review clause, and on technology transfer remain "on the table" for discussion and, in fact, are contained in all recent negotiating texts.

An international treaty, particularly one with the scope of a universal Law of the Sea, is an extraordinarily complex document. There are prefaces, articles, paragraphs, clauses, statements of policy and principles, and annexes. The ICNT is truly a labyrinthian maze. What may seem clear in Article 150 (Policies Relating to Activities in the Area) and in Article 151 (System of Exploration and Exploitation) may be rendered economically unfeasible by Article 150 bis (Production Policies), seriously compromised by the paragraphs relating to the transfer of technology in Annex II, or completely overturned in twenty years by the provisions in Article 153 (The Review Conference).

This article is not intended to be a definitive legal analysis of the ICNT or of any other negotiating proposal before the Conference. The point is that the deep and fundamental conceptual differences which separate the developing world from the industrial nations are reflected in the types of issues that increasingly are finding their ways into negotiating texts but which, hopefully, are not yet settled.

Some issues relate to the nature of the new International Au-

27. *The Law of the Sea Conference and Its Aftermath*, AM. SOC'Y INT'L L. PROC. 107, 108 (1977) (remarks by Elliot L. Richardson).

28. U.N. Doc. A/Conf. 62/WP. 10, *reprinted in* 8 UNCLOS I OR 1, *and in* 16 INT'L LEGAL MATERIALS 1108 (1977). The ICNT emerged from the Sixth Session (1977) under circumstances that raised serious questions about the basic procedural due process of the Conference.

thority—to its international structure, its voting arrangements, the scope of its powers, and its procedures for the settlement of disputes. Others involve the relationship between the Authority and the organizations that may wish to engage in mining. They cover such matters as the qualifications of an applicant seeking authorization to mine, the advance fees a mining organization must pay, production controls, the transfer of technology by an organization to the Authority, and the rights of mining organizations with respect to proprietary data and to the recovered minerals.

Whereas the industrial world wants to create a climate that will stimulate private investment, the G-77 wants to ensure that all aspects of deep seabed mining are centrally controlled—even at the risk of seriously constraining the investment climate. This difference in philosophy is reflected in the kind of treaty text that each group wants. The developed nations want precision, clarity, and predictability—limiting future uncertainty with respect to security of tenure and contractual obligations. The developing nations, however, prefer a more generalized text—one that sets forth broad principles but leaves the implementation of these principles to the International Authority.

The widely disparate perceptions and goals of the developed and the developing nations are not only many and deep, they are persistent. They have continued for the full term of the Conference, and although one can see occasional movement on one or another issue, there is as yet no sign that the nations participating in UNCLOS III can resolve their fundamental differences on deep seabed mining. An impasse may have been reached.

THE NEED FOR DOMESTIC LEGISLATION

For the United States, the impasse has created a dilemma. On the one hand, the United States is committed to the concept of a new and comprehensive Law of the Sea. It does not want the Conference to fail, although the consequences of failure may not be nearly as severe as some predict. On the other hand, it cannot permit ocean mining operations to remain stalled. The work of research and development is very advanced, but continuing advances in technology will be necessary. The mining companies have formed consortia to engage in deep seabed mining on a commercial scale, technology teams have been assembled and are in

place, and the industry is ready to commit large capital sums to this work if proper investment conditions can be established.

There is now a sense of momentum, of forward movement. But if nothing happens, if the mining companies cannot begin to mount actual operations, this momentum will be lost. Technology teams will be disbanded, operational planning will come to a halt, and investment capital will be diverted to other areas of activity. It may be possible at a later date to resurrect the elements that are providing the present sense of progress, but only with great difficulty. Beyond all this, of course, is the pressing need for the minerals themselves—for the short term, to meet critical shortages that may be created by unstable market forces; for the long term, to meet fundamental world requirements.

The slow pace of the UNCLOS III negotiations can no longer dictate the pace of development of deep seabed mining. The ocean mining industry, which is a new and infant enterprise, is too fragile, the international markets for the scarce minerals found on the ocean floor are too volatile, and the world's needs for these minerals are too important. The forward movement of deep seabed mining should be actively encouraged, not brought to a halt while the Conference makes its slow way from negotiating session to negotiating session. Because there is no international mechanism yet in place for the development of ocean mining, the United States must act unilaterally—through domestic legislation—to provide a proper regulatory framework. This does not mean that the United States must or should turn its back on the current international efforts to create a new Law of the Sea. It is possible to devise domestic legislation that will permit ocean mining operations to commence and that, at the same time, will not prejudice the formation of a new international regime.

It is now the position of the administration that the establishment of a domestic legal framework within which our companies can operate must be considered independently of the Conference. Even if the international negotiations are successful reasonably soon (an extraordinary assumption), there will be a number of years between final ratification by the signatory nations and actual implementation of the international management machinery. It is not in the interest of the world community to expect deep seabed resource development to be held in abeyance until that time.

In recent testimony before a congressional committee, Ambassador Richardson summarized the United States' position with respect to domestic seabed mining legislation:

I think it should be clear . . . that the question of whether or not the

United States should legislate on this subject ought no longer to be governed by the question of progress or the lack thereof at the Conference.

In my earlier testimony in support of legislation this year, I made clear that the considerations underlying that support by the administration are considerations independent of the Conference. I pointed out that there would be a need for some legal framework for deep seabed mining in any event between the outcome of a successful Conference and the effective date on which a comprehensive treaty would come into force. That is going to be a period of a considerable number of years at best.

Beyond that, the companies contemplating seabed mining are facing difficult decisions as to whether or not to continue to invest money in the development and testing of deep seabed mining technology. They need to make those decisions now before they can know definitively what the outcome of the Conference will be.

I pointed out further that the contemplated legislation is interim in character on its face. It would be superseded by an eventual treaty and finally it is, so far as we can make it so, consonant in its terms with those provisions on the exploitation of the seabed that have so far been negotiated at the Conference.

From all this, in my view, it follows that we should seek to convey to our fellow participants in the Conference an understanding of these points in order to mitigate the adverse impact that might follow from final passage rather than to stay our hand at the costs that I have identified.²⁹

It has not been entirely clear to some observers why legislation is necessary if, in fact, seabed mining is a high seas freedom. Is it not possible for a company to engage in deep seabed mining now? It would be possible and legal to begin mining now, but the companies are rightfully concerned about their security of tenure with respect to any seabed area vis-à-vis other United States or foreign nationals.

Compounding this problem is the high degree of uncertainty created by UNCLOS III. To the extent that a treaty could terminate industry's operations under existing international law, prohibit mining activities, limit production, fix prices, require transference to a new mining site, or raise costs prohibitively, lending institutions will not loan any substantial part of the risk capital needed to move toward commercial operations.

It is important, then, that a legal framework be created which addresses these security of tenure problems. The legitimacy and sanction of the United States government with respect to mining activities, pursuant to a program established by the Congress, is a critical function of legislation.

29. *Status Report on Law of the Sea Conference: Hearing Before the House Comm. on International Relations*, 95th Cong., 2d Sess. 52 (1978) (statement of Ambassador Elliot L. Richardson).

A second feature of any domestic program relates to the high seas principle that each nation may regulate the activities of its nationals on the high seas. At present, the United States government has no program for the control of high seas mining activity, including the protection of the marine environment. This is clearly a needed element if the seabed is to be mined in a safe and environmentally sound manner.

It is imperative, therefore, that a strong legal framework be established—a framework within which the industry may obtain security of tenure, and the government may exercise its normal functions of regulation and administration.

The most important legislative vehicle in the 95th Congress was H.R. 3350, the Deep Seabed Hard Mineral Resources Act.³⁰ It was subject to one of the most vigorous and intense deliberations ever afforded to any piece of congressional legislation. It was fashioned in such a way as to be, in Ambassador Richardson's words, "consonant in its terms with those provisions on the exploitation of the seabed that have so far been negotiated at the Conference."³¹

H.R. 3350 contained several such features. It was interim in nature, pending a successful Law of the Sea Convention that might come into force and effect with respect to the United States. It recognized United States support for the Declaration of Principles and noted that the common heritage of mankind would be legally defined by a Law of the Sea treaty. The bill explicitly stated that one of its purposes was to encourage the successful negotiation of a treaty, and, pending such an agreement, it established a revenue-sharing fund the proceeds of which were to be shared by the international community pursuant to a treaty. Those who held licenses and permits under the Act could not engage in any activities that interfered with the interests of other nations in their exercise of the freedoms of the high seas, conflict with any international obligation of the United States, or pose an unreasonable threat to the quality of the environment. The bill also contained an explicit disclaimer which stated that by enacting the deep seabed mining program, the United States was *not* asserting sovereignty or sovereign or exclusive rights over, or the ownership of, any area of the deep seabed. Rather, it was simply exercising its proper jurisdiction to regulate United States citizens in the carrying out of ocean mining activities on the high seas. In an effort to

30. H.R. 3350, 95th Cong., 2d Sess. (1978).

31. *Status Report on Law of the Sea Conference: Hearing Before the House Comm. on International Relations*, 95th Cong., 2d Sess. 52 (1978) (statement of Ambassador Elliot L. Richardson).

facilitate the transition from this domestic program to one under an international regime, the section in the bill that stipulated the criteria on which regulations were to be promulgated was based, in large measure, on Annex II of the RSNT—a part of the UNCLOS III negotiations that has generally not been in dispute.

H.R. 3350, therefore, was carefully structured to be as consistent as possible with the international negotiations and with the principles of the freedom of the high seas. At the same time, it addressed the security of tenure issues by establishing a licensing and permitting process. No United States citizen could interfere with the activities authorized by a license or permit, and the possibility that interference from foreign nationals would also be prohibited was enhanced by the authorization to enter into reciprocal arrangements with other nations engaged in mining. With respect to the security of tenure problems associated with UNCLOS III, the bill contained a statement of congressional intent that any international agreement should provide assured and non-discriminatory access to the resources, under reasonable terms and conditions, to United States citizens. For those United States citizens who had commenced mining activities prior to an international convention, the statement called for the continuation of those operations under similar terms as were imposed by the domestic legislation and in such a manner as to avoid unreasonable impairment of the value of the investments made in relation to such operations.

Although a statement of congressional intent is not binding on the UNCLOS III in general, or on the United States negotiators in particular, it does represent the strong feeling on the part of the Congress about what type of regime should be established by the Conference and what protections should be provided for those operations that are in existence at the time a treaty goes into force and effect. Clearly this type of statement is important to the industry with respect to its investment decisions. It is also important to the nations participating in UNCLOS III with respect to the type of treaty for which the chances of United States Senate ratification would be enhanced and of full congressional support of subsequent implementation legislation would be increased.

H.R. 3350, then, was a measure that delicately balanced many competing interests and would have established a sound and rational management program for our domestic needs while carefully fulfilling our international obligations. The story of the

ocean mining bill, nevertheless, is a classic case of the obstacles involved in passing major legislation in the Congress. It was acted upon and favorably reported by four committees in the House and three committees in the Senate. When it was considered by the full House of Representatives, it was overwhelmingly adopted by a vote of 312 to 80, representing the first time that the House had passed deep seabed mining legislation. Unfortunately, in the closing days of the 95th Congress, because of procedural and parliamentary problems, the bill never reached the floor of the Senate. Consequently, it died when the Congress adjourned. However, it will be reintroduced at the beginning of the 96th Congress. Given that all the major substantive problems were resolved in the last session, the probability is very high that the bill will be expeditiously considered by the Congress and sent to the President—perhaps before adjournment of the Eighth Session of UNCLOS III.

CONCLUSION: THE INTERNATIONAL BENEFITS FROM DOMESTIC LEGISLATION

The deep seabed mining debate, within the Conference itself, within the United States Congress, and among other interested observers, is often filled with animosity and misunderstanding. Frequently cast in terms of the rich versus the poor, the level of rhetoric is dysfunctional for meaningful negotiations and completely overlooks the common interests that all nations have in the development of the seabed. When the next session of UNCLOS III convenes, it should be a time for some sober reflections, rational negotiations, and factual observations about the state of the world's economy with respect to mineral resources.

The reason commercial exploitation of seabed resources has never before been undertaken lies in the historically high cost of producing minerals from the ocean, particularly when compared to the relatively low cost of producing those minerals from abundant land-based ores. However, over the past decade the value of the metals contained in nodules has more than doubled and has risen by fifty percent more than either the United States' wholesale price index or the International Monetary Fund index of world traded goods.

At the same time, the technological environment within which efficient ocean mining techniques could be generated has been greatly improved. This improvement is largely attributable to techniques developed by the rapidly growing offshore oil industry. Also, as ocean mining becomes potentially cheaper, land-based mining is becoming increasingly expensive. This juxtaposi-

tion is caused both by dramatic declines in ore quality and accessibility and by increased infrastructure costs as more isolated land-based deposits are brought under development.

Additionally, the world is moving into a period in which there is a shift from a buyer's to a seller's market for most raw materials. This shift greatly increases the probability of the formation of stable cartels. Many land-based producers of minerals are now operating at near-monopoly prices—prima facie evidence that they already wield considerable market power.

Deep seabed mining can restore competition to the world market that would result in lower mineral prices for all. The economic benefit from competition would be worldwide and would include even those nations most adamantly opposed to an equitable seabed mining structure.

This article has pointed out that much of what one sees in the confrontation between the industrialized nations and the Third World is a fundamental difference in the perception of what role the United States and others are to play in long-range human development. The nations of the world should recognize that the knowledge and technological capability necessary for recovery of seabed nodules, and not the nodules themselves, are the true resources. The oil, gas, minerals, and other resources that the world began using about a century ago had been held by the earth for millions of years. What was lacking through all these years of human history was the knowledge required to make use of these resources. The industrial and technological development that has been undertaken through major investments of capital and labor has unleashed these resources for the benefit of all—not just some—nations.

In view of this development, one should properly view the non-renewable resources that the world is using not as finite wealth that the industrialized world is squandering, but as a fortunate accident of nature that has given us the luxury of time to learn processes that will ultimately bring mankind into a world of truly abundant wealth.

Each new technological project is an important part of this learning process. What the world learns from deep seabed mining may be far more important in the long run than the minerals that are recovered. The knowledge gained will be beneficial for all people and all nations. This is precisely why it is imperative

that the exploration and development of the oceans be strongly encouraged by the world community—and not be delayed any further by an international Conference which, to this point, has been severely constrained by ideological and conceptual differences of the most fundamental nature.

In this regard, then, the case for domestic legislation is overwhelming. This article has outlined the various economic, legal, and political considerations involved in the issue and the problems associated with the United Nations Conference on the Law of the Sea. In total, the frequently heard argument that legislation would disrupt and perhaps destroy the negotiations has little merit.

Rather, legislation of the type described above will have positive economic benefits for the entire world, encourage further technological advances now that can form the basis for a future international regime, and persuade the negotiating nations that the time has come for the good faith bargaining essential for a widely accepted treaty.

The United States has been severely criticized for moving toward unilateral action on this issue. Paradoxically, unilateral domestic legislation may yet make the most significant contribution to the establishment of an international regime for ocean mining.